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**Lamont Geological Observatory
of Columbia University
Palisades, New York**

**PHYSICAL AND CHEMICAL
OCEANOGRAPHIC OBSERVATIONS
IN THE SOUTHERN OCEANS**



USNS ELTANIN

Cruises 7-15

1963 - 1964

Stanley S. Jacobs

Technical Report No. 1-cu-1-65

NSF Grant GA-194

December, 1965



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ERRATA

The following changes should be made in the previous data report "Physical and Chemical Oceanographic Observations in the Southern Oceans, USNS ELTANIN, Cruises 7-15, 1963-1964".

Figure 1 - Stations 231, 232, and 233 should each appear 1° west of their present positions.

P. 56 - The doubtful indicators for salinity should be removed.

P.189 - Oxygen at 581 meters should be 440.

P.199 - Oxygen at 664 meters should be 462.

P.278 - Coordinates for station 354 should be 6046S, 12418W.

The following data should be indicated as doubtful:

P. 31 - Salinity at 300 meters

P.116 - Salinity at 3531 meters

P.131 - Salinity at 3001 meters

P.187 - Oxygen at 3163 meters

P.191 - Temperature at 47 meters

Salinity at 1100 meters

Oxygen at 3606 meters

P.199 - Temperature at 25 meters

P.207 - Salinity at 1424 meters

Salinity at 2674 meters

The references (p.16) should include the following: Wilson, W.D. (1960), Equation for the speed of sound in sea water, Jour. Acoust. Soc. Amer., 32(10), p.1357.

The heading for each data page has been slightly altered in the present report (Cruises 16-21) to clarify the lists of chemical data. No change in units is involved.

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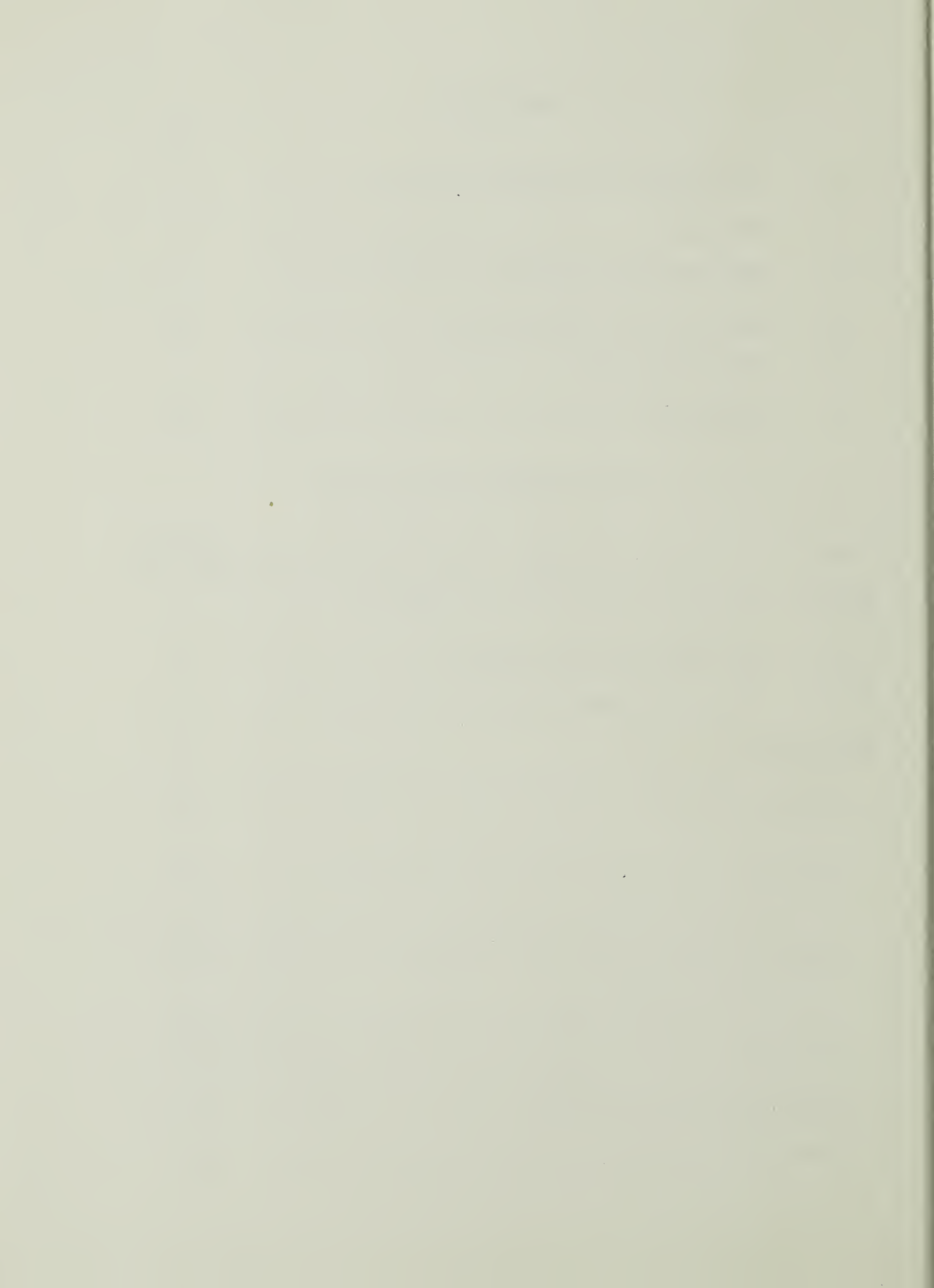
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I. Introduction, Hydrographic Equipment

This report includes all hydrographic and chemical data collected at oceanographic stations occupied by the USNS ELTANIN on Cruises 7 through 15 (February, 1963, through December, 1964). A station map is included (Fig. 1). It should be noted that stations previous to Number 292 were originally numbered consecutively within each cruise. These stations have now been renumbered, beginning with the first station on Cruise 4. Table 1 is included to indicate correspondence with the old station numbers. Hydrographic data on Cruises 4-6 appeared in a previous technical report (Friedman, 1964).

Five thousand seven hundred twenty-nine bathythermograph observations were made during these nine cruises. They were generally taken every hour while the ship was underway in the main regions of study, and every two hours to and from operating areas. The great majority of lowerings were to 250 meters. Surface salinity samples were usually taken at the time of every other BT observation during all cruises. The breakdown of BT observations for each cruise is as follows:

<u>Cruise</u>	<u>Total Number</u>	<u>Cruise</u>	<u>Total Number</u>
7	246	12	867
8	498	13	636
9	304	14	605
10	327	15	905
11	1341		

Table 1
Hydrographic Station Numbers

EL. #7		EL. #8		EL. #9		EL. #10		EL. #11		EL. #12	
Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
1	93	F	121	1	164	1	192	1	227	1	260
2	94	1	122	2	165	2	193	2	228	2	261
3	95	2	123	3	166	3	194	3	229	3	262
4	96	3	124	4	167	4	195	4	230	4	263
5	97	4	125	5	168	5	196	5	231	5	264
6	98	5	126	6	169	6	197	6	232	6	265
7	99	6	127	7	170	7	198	7	233	7	266
8	100	7	128	8	171	8	199	8	234	8	267
8A	101	19	129	9	172	9	200	9	235	9	268
9	102	17	130	10	173	10	201	10	236	9A	269
10	103	16	131	11	174	11	202	11	237	10	270
11	104	15	132	12	175	12	203	12	238	11	271
12	105	8	133	13	176	13	204	13	239	12	272
13	106	9	134	14	177	14	205	14	240	12A	273
14	107	10	135	15	178	15	206	15	241	13	274
15	108	11	136	16	179	16	207	16	242	14	275
16	109	12	137	17	180	17	208	17	243	15	276
17	110	22	138	18	181	18	209	18	244	16	277
18	111	23	139	19	182	19	210	19	245	17	278
19	112	24	140	20	183	20	211	20	246	18	279
20	113	34	141	21	184	21	212	21	247	19	280
21	114	35	142	22	185	22	213	22	248	20	281
22	115	21	143	23	186	23	214	23	249	21	282
23	116	13	144	24	187	24	215	24	250	22	283
24	117	14	145	25	188	25	216	25	251	23	284
25	118	20	146	26	189	25A	217	26	252	24	285
26	119	C-1	147	27	190	25B	218	27	253	25	286
27	120	C-2	148	28	191	26	219	28	254	26	287
		C-3	149			27	220	29	255	27	288
		C-4	150			28	221	30	256	28	289
		C-5	151			29	222	31	257	29	290
		C-6	152			30	223	32	258	30	291
		C-7	153			31	224	33	259		
		D-1	154			32	225				
		D-2	155			33	226				
		D-3	156								
		D-4	157								
		D-4A	158								
		D-5	159								
		D-6	160								
		D-7	161								
		D-8	162								
		D-9	163								

BT slides are being processed by the National Oceanographic Data Center, in both analog and digital form, and will be on file at Lamont and NODC. BT numbers are consecutive within each cruise.

Continuous graphical records of surface temperature were made along all ELTANIN tracks. The thermistor surface temperature sensor was towed alongside the ship and calibrated regularly against reversing thermometers. The surface temperature records were used to obtain surface calibration data for each individual BT lowering.

Water samples were collected in standard 1500 ml teflon-lined Nansen bottles, with two thermometers mounted in each frame. Bottles and thermometers were primarily obtained from the G. M. Manufacturing Company, New York, with a few thermometers from Richter and Wiese, Berlin. Generally, five unprotected thermometers were used on the shallow cast (to 1000 meters) and seven on the deep cast. Thermometers were read after reaching thermal equilibrium in a water-filled tank. Beginning with Cruise 13, a thermograd (Gerard, Langseth and Ewing, 1962) was used to obtain continuous recordings of temperature from the surface to ocean bottom. With this instrument, modified for a single water probe and for full-scale deflection of the pressure trace over various depth ranges, water temperature can be determined to a relative accuracy of $\pm 0.01^\circ \text{C}$ and depth to ± 10 meters. Attached to the bottom of each hydro cast, the thermograd was operated

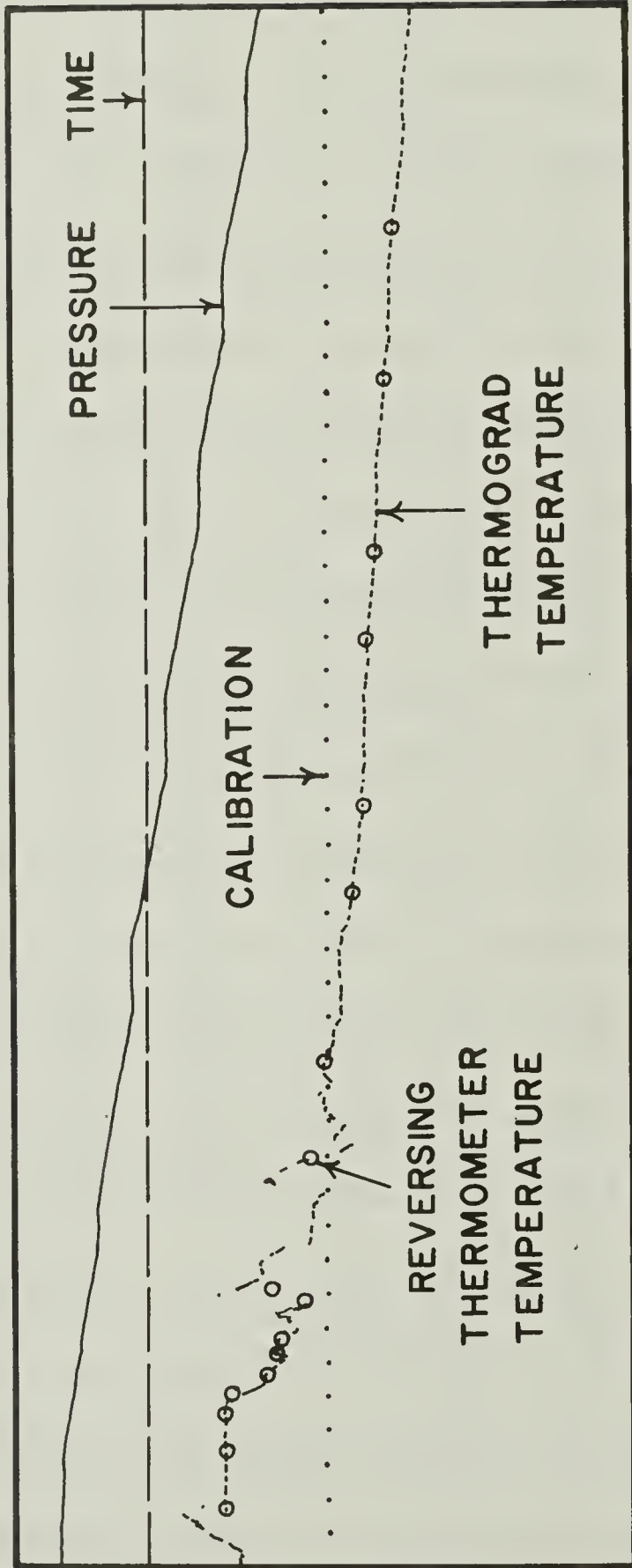


FIG.2 SECTION OF THERMOGRAD FILM ON STATION 38I , WITH REVERSING THERMOMETER TEMPERATURES SUPERIMPOSED.

successfully on seventy-two stations through Cruise 15. A far more complex thermal structure (Figure 2) was revealed in the upper water columns than was evident with reversing thermometers alone. Results of temperature measurements with the thermograd will be incorporated into a separate report.

Efforts were made during these cruises, and particularly during 11 and 12 to obtain water samples near the ocean bottom. An attempt was made to obtain 1 or 2 gravity cores on each deep hydro cast. Samples were turned over to the U. S. C. Biology Department or to Lamont micro-biologists. During Cruise 15 the lowest Nansen bottle was modified to trip when the cast weights hit bottom and reduced tension on the wire. After bottom contact the casts were raised 50 meters or more permitting sampling of the bottom water with less danger of leaving the thermograd, gravity corers, and last bottle on the bottom during messenger descent. On Cruise 12 forty-seven special water samples were collected for Dr. Craig of the Scripps Institution of Oceanography for isotope analysis and seven gravity cores were sent to Dr. E. D. Goldberg of S.I.O. for clay mineral studies.

II. Chemistry

Oxygen was determined according to the Winkler method, essentially as outlined in Strickland and Parsons (1960). Reactive silicate was determined according to the silicomolybdic acid method

described in Barnes (1959) - after Mullin and Riley (1955a) - with the standards and blanks determined by the procedure in Strickland and Parsons. Reactive phosphate was measured after Strickland and Parsons. This procedure is mainly after Robinson and Thompson (1948) modified by the work of Armstrong described in Harvey (1957). Turbidity blanks were seldom run. Nitrate was determined by the method outlined in Strickland and Parsons - modified after Mullin and Riley (1958). Water samples were not filtered and nitrite corrections were not made. On Cruises 7-10 synthetic sea water blanks and distilled water blanks were not run on every station for silicate, nitrate and phosphate. On these cruises average blank values were used on all stations for silicate and nitrate, and on stations with missing blanks for phosphate.

Silicate, phosphate and nitrate determinations were made on a Beckman model DU spectrophotometer. pH was measured on a Beckman model G pH meter. Salinities were determined on laboratory induction salinometers, model 601, manufactured by Auto-Lab Industries Pty Ltd., Australia.

III. Data Reduction, Explanation of Data Listings

Thermometer corrections and depth determinations are accomplished through the use of the IBM 1620 computing facility at

Lamont Geological Observatory. Hydrographic observations input to the computer result in corrected main and auxiliary thermometer readings, determination of wire out to each Nansen bottle and calculation of $T_u - T_w$, thermometric depth, and L-Z. Expansion corrections (C) are calculated from formulae developed by Sverdrup (1947). Output is checked against graphical and circular slide rule computations performed aboard ship.

Calibration data for all thermometers used on these cruises have been determined by the Naval Oceanographic Office, with some index corrections modified by subsequent ice point determinations or by intercomparison of selected thermometers. $T_u - T_w$ values ($T_u - T_w \pm D_{\rho m} Q$) are calculated at 1000 meter intervals for each thermometer, using pressure (Q) factors determined by NODC and average ρ_m values after Wüst (1933). The Q factor at 1000 meters is used between this level and the surface. The deepest Q factor determination is used to obtain extrapolated $T_u - T_w$ points. During production runs thermometric depths are obtained by interpolation between the thousand-meter increment $T_u - T_w$ values determined for each unprotected thermometer. The output values of L-Z are plotted against L, curves are fitted by hand, and the depths of observation determined after Pollak (1950).

Corrected hydro data is processed by another program which interpolates temperature and salinity to standard levels. The calculated

values are the average of two three-point Lagrange interpolations, after Rattray (1962). A comparison of hand-drawn temperature-depth curves with computer interpolated points on Cruise 11 indicated that the average of two interpolations more closely approximated the hand-drawn curves than did either Lagrange routine used separately. Occasional inversions occur in the standard level calculations, but these are small. An alternate linear interpolation routine is utilized when both the following conditions are fulfilled: a) the difference between adjacent observation depths is greater than twice the standard level interval and b) the Lagrange interpolated variable falls outside the range of adjacent observations.

Density is calculated from observed and interpolated values of temperature and salinity after Knudsen (1901). Specific volume anomaly after Bjerknes and Sandström (1910) and dynamic depth are calculated at standard levels. Sound velocity (V_m , in meters/sec) is determined at observed and standard levels from formulae developed by Wilson (1960). Calculated values at the ocean surface are taken to be the same as at the first observation level, as long as this occurs within 6 meters of the surface.

Extinction measurements of nitrate, phosphate and silicate are corrected to final in situ values with appropriate computer programs.

Final pH is also calculated by computer and includes both temperature and pressure corrections, after Buch and Gripenburg (1932). None of the chemical determinations are interpolated.

The headings for each station are mostly self-explanatory. Wind direction (degrees) and force (Beaufort), sea direction (degrees) and state (WMO Code 3700), air temperature ($^{\circ}\text{C}$) and dew point ($^{\circ}\text{C}$) have been taken from ELTANIN deck log sheets, compiled daily aboard ship and distributed to participating agencies. Dew point was not recorded on Cruises 7-10. GMT is the messenger release time of the shallow cast. Geographic location is at this same time. Sonic depth is in meters and has been corrected for variations in sound velocity from Matthews' (1939) tables. Sonic depth is recorded at messenger release time of the deep cast, if more than one cast was made, or occasionally, at the estimated trip time of the bottom bottle. It may be noted that the deepest level of observation sometimes exceeds the indicated sonic depth. This is due to the not uncommon presence of a sonic reflecting surface upslope from the lowest Nansen bottle. This occurrence is more frequent on cruises where particular efforts were made to sample the near-bottom water.

"NO.OBS." is the number of sampling levels. Data codes appear in the "DD" Column. The asterisk next to the deepest temperature observation on several Cruise 15 stations indicates that the temperature

has been taken from the thermograd and not from reversing thermometers.

IV. Quality Control, Doubtful Data

The standard techniques of quality control of oceanographic data are of limited use in the Southern Oceans, where the range of variables is small and seasonal variations in the upper 300 m are large. The most effective controls are continued and rigorous checks on the performance and calibrations of the instruments used.

Corrected temperature and salinity are plotted against depth for each individual station. Vertical cross sections of adjacent stations are constructed for all measured variables for each cruise, utilizing a 1627 data plotter linked to the 1620 computer. The points on these profiles are checked for internal consistency, and possible systematic errors are located by comparison with earlier expedition results (DISCOVERY, IGY, etc.) Questionable points are indicated as doubtful on the detail observation cards. The data codes used are:

- 1) doubtful temperature
- 2) doubtful salinity
- 3) doubtful temperature and salinity
- 4) doubtful oxygen
- 5) doubtful nitrate
- 6) doubtful phosphate
- 7) doubtful silicate
- 9) temperature = 0.0°C

Doubtful data are not utilized in the interpolations to standard levels. There is no code for pH, mainly due to a lack of suitable

standards.

It should be emphasized that all doubtful data have not, of course, been located in this report. Continuing analyses of these data will reveal additional anomalous values which will be noted, if possible, in future reports. Particular reservations are presently held about much of the phosphate and nitrate data on Cruises 7-10. The results are too erratic and previous data is too sparse to allow any reliable quality control. Silicate and pH on these early cruises are also occasionally erratic, and pH is particularly difficult to compare with previous expeditions because of the different methods used. It is suggested that phosphate, nitrate and pH determinations on Cruises 7-10 be used as auxiliary values only.

Results with the laboratory induction salinometers in use on the ELTANIN were occasionally questionable before Cruise 12 due to a) failure of instrumental components, b) lack of thermal equilibrium in the laboratory where salinometers were used or c) improper operator technique or sampling procedure. Control was maintained over final results on all cruises, however, through the use of large sub-standard control samples that were run along with the regular collections. Salinometer malfunctions that could not be repaired aboard ship were encountered on the latter part of Cruise 11. Samples subsequent to Station 241 were carefully bottled and stored for later analysis. The salinities of a portion of these samples (Stations 242-254) were measured

on a South African salinometer at the Chilean Hydrographic Office until this instrument also began to give erratic results. The remaining Cruise 11 (Stations 255-258) salinities were determined on repaired Auto-Lab instruments aboard the ELTANIN early on Cruise 12. Control samples for Stations 242-254 were also analyzed at this time and corrections of $+.01$, $+.02$ or $+.03$ o/oo were made to the values on Stations 247-251 and 254. The original determination on stations 252 and 253 were replaced entirely by the control sample values.

Two protected thermometers were used together at several levels on most stations. Table 2 is a compilation of temperature differences between paired protected thermometers on Cruises 7 through 15. Differences greater than $.09^{\circ}\text{C}$ were considered to be the result of a malfunction of one of the instruments and are not included in the totals. Separate totals are given for Cruises 7 and 15 to indicate the improvement in results as index corrections were determined with greater accuracy and as the thermometer tank allowed better thermal equilibrium to be reached before the instruments were read.

As the average of both readings was taken when two protected thermometers were paired on these cruises, approximately 97% of the temperatures obtained in this manner can be considered correct to within $.02^{\circ}\text{C}$. At the levels where an unprotected thermometer was in use, better than 90% of the final temperatures can be considered to be correct to within $.02^{\circ}\text{C}$.

Table 2 - Paired Protected Thermometers E 7-E 15

<u>Difference</u>	<u>Totals</u> <u>E 7- E 15</u>	<u>Cumulative</u> <u>Percentage</u>	<u>Total</u> <u>E 7</u>	<u>Cumulative</u> <u>Percentage</u>	<u>Total</u> <u>E 15</u>	<u>Cumulative</u> <u>Percentage</u>
.00	657	24.5	21	12.2	95	28.3
.01	1068	64.3	71	53.5	141	70.2
.02	575	85.8	41	77.3	55	86.6
.03	218	93.9	11	83.7	36	97.3
.04	85	97.1	8	88.4	5	98.8
.05	34	98.3	4	90.7	3	99.7
.06	15	98.9	7	94.8	0	99.7
.07	11	99.3	3	96.5	1	100.0
.08	14	99.8	4	98.8	0	--
.09	<u>5</u>	100.0	<u>2</u>	100.0	<u>0</u>	--
	2682		172		336	

V. Acknowledgments

Many persons have assisted in the collection of this data, and in various stages of its reduction. Principal among these are Anthony Amos, Roberto Duran, Frederic L. Rosselot and Edwin McB. Williams. Roberto Duran was on leave from the Argentine Hydrographic Office to participate in the ELTANIN program. Other personnel who participated in these cruises, both at sea and at Lamont include Ernesto Calderon, Shannon Cory, Julio Cosattini, Paul Hale, Rudi Markl, Guy Mathieu, Juan Quintana and Alvaro Ulloa. Mrs. Jeanne Stolz performed the secretarial duties.

Dr. Nicholas Kudryavtsev from the Arctic and Antarctic Institute, Leningrad, was an observer with the Lamont Hydrographic

Department on Cruise 8 and Dr. Ricardo Pytkowicz joined the department on Cruise 14 for his own preformed phosphate studies.

The work has been supported by National Science Foundation contracts GA-117 and GA-194.

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SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	93	9FEB1963	1630	5305S	4504W	2301	484	35	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	4	7.7	0.0	290	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.13	34.026	26.91	15.46	0.000	14703						
OBS	6	5.13	34.026	26.91			14703	744			7	827	
STD	10	5.12	33.989	26.88	118.24	.012	14703						
STD	20	5.09	33.921	26.83	122.98	.024	14703						
OBS	26	5.05	33.898	26.82			14701	738			1	828	
STD	30	5.03	33.895	26.82	124.48	.036	14702						
OBS	45	4.87	33.908	26.85			14697	727			6	824	
STD	50	4.85	33.911	26.85	121.47	.061	14698						
OBS	68	4.16	33.923	26.94			14671	723			6	828	
STD	75	3.27	33.929	27.03	104.87	.089	14635						
OBS	85	1.94	33.939	27.15			14578	744			11	823	
STD	100	1.14	33.962	27.22	85.70	.113	14546						
OBS	125	.90	34.010	27.28			14539	738			28	822	
STD	150	.87	34.068	27.33	75.89	.153	14544						
OBS	166	.97	34.106	27.35			14550	694			32	801	
STD	200	1.03	34.168	27.40	69.39	.190	14560						
OBS	247	1.17	34.236	27.44			14574	601			43	800	
STD	250	1.19	34.240	27.44	65.17	.223	14577						
STD	300	1.56	34.300	27.47	63.47	.255	14602						
OBS	329	1.76	34.328	27.47			14615	516			53	807	
STD	400	1.68	34.350	27.50	61.26	.318	14625						
OBS	494	1.45	34.375	27.53			14629	506			55	812	
STD	500	1.48	34.382	27.54	56.88	.377	14632						
STD	600	1.93	34.503	27.60	52.45	.431	14670						
OBS	665	2.24	34.586	27.64			14694	408			80	803	
STD	700	2.25	34.611	27.66	47.49	.481	14702						
STD	800	2.18	34.662	27.71	43.42	.527	14716						
OBS	850	2.10	34.675	27.73			14720	408			87	803	
STD	900	2.08	34.684	27.73	41.25	.569	14728						
OBS	982	2.05	34.691	27.74			14739	414			86	808	
STD	1000	2.04	34.693	27.74	40.73	.610	14743						
OBS	1119	1.96	34.705	27.76			14758	420			91	805	
STD	1250	1.87	34.724	27.78	37.19	.708	14777						
OBS	1259	1.57	34.725	27.81			14764	420			82	803	1
OBS	1337	1.80	34.728	27.79			14787	421			86	805	
OBS	1433	1.71	34.740	27.81			14800	425			83	803	
STD	1500	1.66	34.744	27.81	34.81	.798	14809						
OBS	1575	1.61	34.744	27.82			14819	442			95	796	
OBS	1658	1.55	34.740	27.82			14830	449			102	801	
STD	1750	1.49	34.738	27.82	33.88	.883	14843						
OBS	1813	1.44	34.737	27.82			14851	428			101	802	
OBS	1957	1.30	34.736	27.83			14869	455			99	801	
STD	2000	1.26	34.732	27.83	32.94	.967	14875						
OBS	2086	1.18	34.726	27.83			14885	431			98	800	4
OBS	2179	1.11	34.726	27.84			14897	464			105	798	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	94	10FEB1963	1720	5402S	4511W	3411	484	45	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			275	7	5.8	0.0	240	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.74	33.922	26.87	119.07	0.000	14685						
OBS	2	4.74	33.922	26.87			14685	699			14	803	
STD	10	4.58	33.931	26.90	116.73	.012	14680						
STD	20	4.37	33.943	26.93	113.82	.023	14673						
STD	30	4.17	33.955	26.96	110.95	.035	14666						
STD	50	4.01	33.958	26.98	109.25	.057	14663						
OBS	54	3.68	33.983	27.03			14650	713			18	821	
OBS	65	2.57	34.070	27.20			14605	685			30	814	
STD	75	2.33	34.087	27.24	85.00	.081	14597						
OBS	86	2.42	34.081	27.22			14602	668			26	805	
STD	100	2.38	34.099	27.24	84.30	.102	14603						
OBS	115	2.32	34.118	27.26			14603	682			21		
STD	150	1.84	34.128	27.31	78.02	.143	14588						
OBS	173	1.54	34.130	27.33			14578	677			33	803	
STD	200	1.56	34.146	27.34	74.77	.181	14584						
OBS	229	1.69	34.169	27.35			14594	619			40	802	
STD	250	1.74	34.194	27.37	72.68	.218	14600						
STD	300	1.84	34.256	27.41	69.04	.253	14614						
OBS	341	1.92	34.311	27.45			14625	531			52	800	
STD	400	2.02	34.372	27.49	62.43	.319	14640						
OBS	452	2.10	34.419	27.52			14652	459			69	798	
STD	500	2.15	34.460	27.55	56.71	.378	14663						
STD	600	2.22	34.535	27.60	52.76	.433	14683						
OBS	681	2.24	34.584	27.64			14698	403			86	799	
STD	700	2.24	34.592	27.65	48.77	.484	14701						
STD	800	2.19	34.630	27.68	45.86	.531	14716						
STD	900	2.13	34.658	27.71	43.56	.576	14730						
OBS	907	2.12	34.660	27.71			14730	409			90	800	
STD	1000	2.07	34.691	27.74	41.22	.618	14744						
OBS	1050	2.04	34.701	27.75			14751	409			98	798	
OBS	1137	1.96	34.695	27.75			14762	416			106	796	
OBS	1191	1.93	34.701	27.76			14769	353			108	796	4
STD	1250	1.90	34.705	27.77	38.91	.718	14778						
OBS	1432	1.80	34.715	27.78			14804	431			114	795	
STD	1500	1.75	34.721	27.79	37.48	.814	14813						
OBS	1678	1.61	34.735	27.81			14836	437			107	798	
STD	1750	1.54	34.739	27.82	34.38	.904	14846						
OBS	1953	1.36	34.744	27.84			14872	454			119	796	
STD	2000	1.33	34.743	27.84	33.04	.988	14878						
OBS	2178	1.23	34.734	27.84			14903	460.			120	802	
STD	2250	1.18	34.729	27.84	32.72	1.070	14913						
OBS	2441	1.02	34.717	27.84			14938	466			123	801	
STD	2500	.97	34.714	27.84	32.53	1.152	14946						
OBS	2694	.80	34.708	27.84			14971	477			123	795	
STD	2750	.76	34.709	27.85	30.29	1.230	14979						
OBS	2951	.66	34.713	27.86			15009	488			132	796	
STD	3000	.65	34.711	27.86	29.31	1.305	15017						
OBS	3213	.59	34.702	27.85			15050	496			126	793	
STD	3250	.58	34.702	27.85	28.96	1.378	15056						
OBS	3324	.55	34.702	27.86			15068	506			123	782	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	95	12FEB1963	10	5505S	4506W	3641	484	55	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	6	6.3	0.0	250	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.37	33.967	26.95	111.86	0.000	14670						
OBS	5	4.37	33.967	26.95			14670	736	146		38	808	
STD	10	4.35	33.965	26.95	111.85	.011	14671						
STD	20	4.31	33.961	26.95	111.83	.022	14671						
OBS	25	4.30	33.960	26.95			14670	735	162		37	820	
STD	30	4.30	33.960	26.95	111.91	.034	14672						
OBS	48	4.30	33.958	26.95			14674	733	168		37	820	
STD	50	4.23	33.956	26.96	111.54	.056	14672						
OBS	71	3.02	33.951	27.07			14623	732	169		48	817	
STD	75	2.68	33.959	27.11	97.45	.082	14610						
OBS	94	1.16	34.006	27.26			14546	757	210		54	818	
STD	100	.98	34.014	27.28	80.69	.104	14540						
OBS	139	.78	34.043	27.31			14537	727	218		61	809	
STD	150	.72	34.049	27.32	76.39	.144	14537						
OBS	184	.62	34.070	27.34			14537	720	216		67	810	
STD	200	.67	34.086	27.35	73.26	.181	14543						
STD	250	.92	34.147	27.39	70.37	.217	14563						
OBS	276	1.11	34.183	27.40			14576	627	240		77	807	
STD	300	1.23	34.216	27.42	67.46	.251	14586						
OBS	367	1.56	34.306	27.47			14612	542	239		85	798	
STD	400	1.73	34.347	27.49	61.85	.316	14626						
STD	500	2.13	34.454	27.55	56.93	.375	14662						
OBS	553	2.28	34.502	27.57			14677	425	249		107	791	
STD	600	2.31	34.536	27.60	53.52	.431	14687						
STD	700	2.28	34.593	27.64	49.21	.482	14703						
OBS	740	2.24	34.610	27.66			14707	406	240		119	790	
STD	800	2.24	34.625	27.67	46.73	.530	14718						
STD	900	2.16	34.656	27.71	44.06	.575	14731						
OBS	940	2.09	34.670	27.72			14734	407	240		125	795	
OBS	973	1.99	34.691	27.75			14736	418	247		131	792	
STD	1000	1.94	34.700	27.76	39.27	.617	14739						
OBS	1203	1.81	34.717	27.78			14766	421	241		135	795	
STD	1250	1.78	34.721	27.79	36.52	.712	14773						
OBS	1446	1.67	34.734	27.81			14800	435	247		139	790	
STD	1500	1.64	34.738	27.81	34.97	.801	14808						
OBS	1674	1.53	34.746	27.83			14832	452	235		140	795	
STD	1750	1.48	34.741	27.83	33.51	.887	14843						
OBS	1918	1.35	34.727	27.82			14865	458	239		149	792	
STD	2000	1.27	34.724	27.83	33.75	.971	14875						
OBS	2177	1.11	34.695	27.81			14897	469	240		156	793	2
STD	2250	1.07	34.717	27.83	32.30	1.053	14908						
OBS	2409	.97	34.716	27.84			14930	475	245		158	792	
STD	2500	.89	34.716	27.85	31.43	1.133	14942						
OBS	2644	.76	34.714	27.85			14961	481	245		150	793	
STD	2750	.72	34.709	27.85	29.78	1.209	14977						
OBS	2897	.67	34.702	27.85			14999	492	245		165	792	
STD	3000	.60	34.701	27.85	29.47	1.284	15015						
OBS	3110	.51	34.702	27.86			15029	497	245		154	786	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	96	13FEB1963	800	5555S	4506W	3833	484	55	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		295	7	5.4	0.0	270	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.39	33.922	27.01	105.89	0.000	14628						
OBS	3	3.39	33.922	27.01			14628	750	147	203	25	822	
STD	10	3.42	33.911	27.00	107.04	.011	14631						
STD	20	3.43	33.899	26.99	108.00	.021	14633						
OBS	27	3.44	33.893	26.98			14634	746	141	239	15	820	
STD	30	3.43	33.889	26.98	108.85	.032	14634						
OBS	50	3.31	33.885	26.99			14632	745	131	303	14	821	
STD	50	3.31	33.885	26.99	108.17	.054	14632						
OBS	75	3.06	33.960	27.07			14626	740	141	323	21	818	
STD	75	3.06	33.960	27.07	100.66	.080	14627						
OBS	99	1.32	34.038	27.27			14555	745	163	372	20	819	
STD	100	1.29	34.039	27.28	80.79	.103	14554						
OBS	149	.92	34.055	27.31			14545	730	164	461	17	817	
STD	150	.92	34.055	27.31	77.14	.142	14546						
OBS	197	.80	34.088	27.35			14548	699	184	388	33	813	
STD	200	.81	34.092	27.35	73.72	.180	14549						
STD	250	.97	34.159	27.39	69.76	.216	14566						
OBS	294	1.25	34.228	27.43			14586	608	205	449	38	810	
STD	300	1.30	34.236	27.43	66.36	.250	14590						
OBS	392	1.97	34.352	27.48			14635	500	211	439	48	802	
STD	400	2.00	34.361	27.48	63.05	.315	14639						
STD	500	2.23	34.455	27.54	57.79	.375	14666						
OBS	588	2.23	34.518	27.59			14681	426	198	465	65	798	
STD	600	2.24	34.526	27.59	53.60	.431	14684						
STD	700	2.24	34.580	27.64	49.73	.482	14701						
OBS	790	2.24	34.614	27.66			14716	407	214	453	65	793	
STD	800	2.24	34.616	27.67	47.34	.531	14718						
STD	900	2.17	34.637	27.69	45.62	.577	14731						
OBS	947	2.13	34.648	27.70			14737	408	202	420	73	792	
STD	1000	2.08	34.673	27.73	42.61	.621	14744						
OBS	1011	2.07	34.678	27.73			14745	415	198	442	50	794	
OBS	1214	1.96	34.694	27.75			14774	421	198	455	70	795	
STD	1250	1.92	34.697	27.76	39.77	.724	14779						
STD	1500	1.65	34.715	27.79	36.78	.820	14809						
OBS	1508	1.64	34.716	27.79			14809	437	187	430	82	795	
STD	1750	1.43	34.732	27.82	33.61	.908	14841						
OBS	1792	1.39	34.734	27.83			14846	455	201	391	90	794	
STD	2000	1.15	34.727	27.84	32.14	.990	14870						
OBS	2085	1.07	34.722	27.84			14880	471	194	371	86	792	
STD	2250	1.04	34.718	27.84	31.93	1.070	14907						
OBS	2382	1.03	34.714	27.83			14929	476	199	435	93	796	
STD	2500	.97	34.707	27.83	33.07	1.152	14946						
OBS	2677	.85	34.699	27.83			14970	484	196	372	111	797	
STD	2750	.79	34.701	27.84	31.23	1.232	14980						
OBS	2964	.63	34.707	27.85			15010	496	199	453	108	795	
STD	3000	.61	34.705	27.85	29.27	1.308	15015						
STD	3250	.49	34.687	27.85	28.90	1.380	15052						
OBS	3258	.49	34.686	27.85			15053	506	195	442	92	796	
STD	3500	.42	34.678	27.84	29.14	1.453	15092						
OBS	3551	.41	34.677	27.84			15100	512	208	444	111	794	
STD	3750	.31	34.666	27.84	27.63	1.524	15130						
OBS	3903	.20	34.656	27.84			15152	523	235	401	106	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	97	14FEB1963	1445	5706S	4508W	3530	484	75	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			285	5	4.7	0.0	275	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.52	33.892	26.98	109.32	0.000	14633						
OBS	3	3.52	33.892	26.98			14633	739	147	203	51	820	
STD	10	3.51	33.875	26.96	110.61	.011	14634						
STD	20	3.50	33.856	26.95	111.96	.022	14635						
OBS	24	3.50	33.851	26.94			14635	739	167	244	52	821	
STD	30	3.49	33.843	26.94	112.88	.033	14636						
OBS	47	3.47	33.843	26.94			14638	734	145	243	52	821	
STD	50	3.15	33.850	26.98	109.37	.056	14625						
OBS	70	.79	33.915	27.21			14525	763	192	269	62	819	
STD	75	.44	33.929	27.24	84.29	.080	14510						
OBS	92	-.32	33.974	27.31			14478	756	184	314	68	814	
STD	100	-.23	33.998	27.33	75.26	.100	14485						
OBS	144	.26	34.142	27.42			14516	653	228	336	80	812	
STD	150	.41	34.165	27.43	65.83	.135	14525						
OBS	186	1.36	34.292	27.47			14574	536	214	359	87	801	
STD	200	1.56	34.324	27.49	61.27	.167	14586						
STD	250	2.00	34.412	27.52	58.29	.197	14615						
OBS	281	2.06	34.443	27.54			14623	448	218	402	101	796	
STD	300	2.11	34.464	27.56	55.53	.225	14629						
OBS	379	2.18	34.531	27.60			14645	406	206	374	111	797	
STD	400	2.18	34.543	27.61	50.87	.278	14649						
STD	500	2.18	34.588	27.65	47.40	.327	14666						
OBS	583	2.18	34.607	27.66			14679	401	210	383	111	796	
STD	600	2.17	34.610	27.67	46.69	.375	14682						
STD	700	2.11	34.624	27.68	45.24	.420	14696						
OBS	795	2.04	34.633	27.70			14708	429	207	377	121	794	
STD	800	2.04	34.634	27.70	44.10	.465	14709						
STD	900	1.97	34.649	27.72	42.68	.509	14723						
STD	1000	1.89	34.666	27.74	41.19	.550	14736						
OBS	1009	1.88	34.668	27.74			14737	429	194	370	123	796	
STD	1250	1.64	34.714	27.79	35.61	.646	14767						
OBS	1259	1.63	34.715	27.79			14768	446	230	368	105	794	
STD	1500	1.41	34.719	27.81	34.01	.733	14798						
OBS	1527	1.39	34.717	27.81			14801	452	214	258	115	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	98	15FEB1963	1139	5800S	4513W	2805	484	85	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			280	5	4.4	0.0	305	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	3.11	33.813	26.95	111.65	0.000	14615						
OBS	1	3.11	33.813	26.95			14615	745	131	163	24	813	
STD	10	3.04	33.832	26.97	109.69	.011	14614						
OBS	11	3.02	33.835	26.98			14613	750	137	251	23	812	
STD	20	2.68	33.882	27.04	102.87	.022	14600						
OBS	26	2.33	33.916	27.10			14586	766	142	246	35	823	
STD	30	1.98	33.930	27.14	93.81	.032	14572						
OBS	41	1.04	33.959	27.23			14532	754	160	173	47	821	
STD	50	.70	33.974	27.26	82.13	.049	14519						
OBS	58	.55	33.988	27.28			14513	749	173	424	52	820	
STD	75	.31	34.060	27.35	73.60	.069	14506						
OBS	95	.30	34.161	27.43			14510	664	193	363	64	811	
STD	100	.37	34.183	27.45	64.26	.086	14515						
OBS	135	1.00	34.317	27.52			14551	542	199	342	75	792	
STD	150	1.15	34.360	27.54	55.57	.116	14560						
STD	200	1.47	34.471	27.61	49.58	.142	14584						
OBS	221	1.53	34.502	27.63			14591	462	217	435	85	791	
STD	250	1.66	34.539	27.65	45.99	.166	14602						
STD	300	1.82	34.586	27.68	44.01	.188	14618						
OBS	313	1.85	34.594	27.68			14621	417	207	366	95	800	
STD	400	1.86	34.633	27.71	41.44	.231	14636						
STD	500	1.76	34.654	27.73	38.83	.271	14648						
OBS	506	1.75	34.654	27.74			14649	434	212	342	103	801	
STD	600	1.79	34.684	27.76	37.76	.310	14666						
STD	700	1.82	34.708	27.77	36.29	.347	14684						
OBS	705	1.82	34.709	27.77			14685	422	204	377	114	800	
STD	800	1.75	34.711	27.78	35.65	.383	14698						
STD	900	1.63	34.713	27.79	34.79	.418	14709						
OBS	915	1.61	34.713	27.79			14710	439	193	343	117	800	
STD	1000	1.51	34.701	27.79	35.03	.453	14720						
OBS	1094	1.39	34.690	27.79			14730						
OBS	1239	1.13	34.699	27.82			14742	452	195	343	125	804	
STD	1250	1.12	34.700	27.82	31.55	.536	14744						
OBS	1352	1.09	34.708	27.83			14759	463	204	378	126	807	
OBS	1465	.80	34.704	27.84			14765	477	193	375	100	807	1
STD	1500	.96	34.704	27.83	30.46	.613	14778						
OBS	1638	.82	34.706	27.84			14795	485	204	342	113	806	
STD	1750	.76	34.704	27.84	28.62	.687	14811						
OBS	1915	.68	34.698	27.84			14835	484	206	384	119	801	
STD	2000	.62	34.696	27.85	28.49	.759	14846						
OBS	2203	.46	34.691	27.85			14873	502	170	397	144	798	
STD	2250	.42	34.688	27.85	27.04	.828	14879						
OBS	2494	.24	34.672	27.85			14912	512	184	352	144	798	
STD	2500	.24	34.672	27.85	26.95	.896	14913						
STD	2750	.09	34.656	27.84	25.87	.962	14948						
OBS	2784	.07	34.654	27.84			14954	525	171	252	138	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	99	16FEB1963	1130	5848S	4500W	2361	484	84	16				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		325	05	3.1	0.0	330	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.33	34.008	27.17	90.54	0.000	14584						
OBS	2	2.33	34.008	27.17			14584	741	161	244	46	814	
STD	10	2.31	34.013	27.18	90.01	.009	14584						
STD	20	2.22	34.030	27.20	88.04	.018	14582						
OBS	28	2.11	34.054	27.23			14579	730	143	250	39	813	
STD	30	2.06	34.064	27.24	84.28	.027	14577						
STD	50	1.57	34.168	27.36	72.94	.042	14560						
OBS	54	1.47	34.188	27.38			14557	715	174	317	68	810	
STD	75	1.19	34.219	27.43	66.73	.060	14548						
OBS	82	1.13	34.223	27.43			14547	707	166	254	79	807	
STD	100	1.04	34.255	27.47	62.83	.076	14546						
OBS	107	1.02	34.268	27.48			14546	685	180	217	79	804	
STD	150	.84	34.355	27.56	53.93	.105	14546						
OBS	159	.80	34.373	27.58			14546	655	191	355	95	802	
STD	200	.61	34.443	27.64	45.90	.130	14546						
OBS	209	.58	34.456	27.66			14546	623	161	198	102	801	
STD	250	.63	34.492	27.68	42.33	.152	14555						
STD	300	.65	34.527	27.71	39.91	.173	14564						
OBS	314	.70	34.535	27.71			14569	549		340	102	799	
STD	400	1.24	34.636	27.76	36.29	.211	14609						
OBS	418	1.36	34.656	27.77			14617	464	161	237	106	797	
STD	500	1.35	34.667	27.78	34.46	.246	14631						
STD	600	1.34	34.681	27.79	34.18	.280	14647						
OBS	629	1.34	34.685	27.79			14651	457	144	175	103	795	
STD	700	1.30	34.694	27.80	32.84	.314	14661						
STD	800	1.23	34.693	27.80	32.45	.347	14675						
STD	900	1.15	34.697	27.81	31.67	.379	14687						
OBS	993	1.07	34.701	27.82			14699	464	181	284	127	797	
STD	1000	1.07	34.700	27.82	31.04	.410	14700						
OBS	1049	1.03	34.695	27.82			14707	465	173	217	126	797	
OBS	1069	1.00	34.695	27.82			14708	465	178	206	129	797	
OBS	1147	.91	34.701	27.83			14717	475	181	391	136	797	
STD	1250	.86	34.702	27.84	28.97	.485	14732						
OBS	1315	.78	34.691	27.83			14739	482	173	375	138	793	
OBS	1358	.65	34.675	27.83			14740	492	157	387	128	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	100	17FEB1963	1518	6010S	4504W	5393	520	5	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		260	4	1.0	0.0	230	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	2.02	34.151	27.31	77.37	0.000	14572						
OBS	4	2.02	34.151	27.31			14572	786	200	246		820	
STD	10	2.01	34.151	27.31	77.29	.008	14573						
STD	20	2.00	34.152	27.31	77.15	.015	14574						
OBS	29	1.99	34.153	27.32			14575	777	127	250	68	815	
STD	30	1.96	34.155	27.32	76.64	.023	14574						
STD	50	1.13	34.214	27.43	66.47	.037	14541						
OBS	56	.82	34.239	27.47			14528	740	121	309	73	808	
STD	75	.01	34.336	27.59	51.02	.052	14496						
OBS	82	-.21	34.373	27.63			14487	692	149	252	106	803	
STD	100	-.24	34.453	27.70	40.51	.064	14491						
OBS	108	-.17	34.482	27.72			14495	654	168	214	97	801	
STD	150	-.05	34.505	27.73	37.40	.083	14508						
OBS	167	0.00	34.495	27.72			14512	608	187	328	102	800	9
STD	200	.08	34.531	27.74	36.12	.101	14523						
OBS	214	.12	34.548	27.76			14526	565	186	198	103	796	
STD	250	.25	34.580	27.77	33.34	.119	14539						
STD	300	.43	34.616	27.79	31.77	.135	14556						
OBS	320	.50	34.628	27.80			14562	515	168	337	96	797	
STD	400	.62	34.662	27.82	29.85	.166	14581						
OBS	427	.64	34.670	27.82			14586	496	176	227	112	796	
STD	500	.65	34.684	27.84	27.91	.195	14600						
STD	600	.67	34.688	27.84	28.45	.223	14617						
OBS	641	.68	34.692	27.84			14623	486	177	177	113	796	
STD	700	.61	34.688	27.84	27.78	.251	14630						
STD	800	.48	34.679	27.84	27.34	.279	14641						
OBS	858	.39	34.673	27.84			14645	492	190	361	126	793	
STD	900	.33	34.669	27.84	27.01	.306	14650						
STD	1000	.20	34.661	27.84	26.77	.333	14661						
OBS	1074	.26	34.674	27.85			14675	487	195	201	111		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	101	18FEB1963	1315	6006S	4525W	4744	520	5	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		50	6	1.5	0.0	40	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.94	34.166	27.33	75.65	0.000	14569						
OBS	6	1.94	34.166	27.33			14569						
STD	10	1.90	34.169	27.34	75.08	.008	14568						
STD	20	1.76	34.166	27.34	74.34	.015	14564						
STD	30	1.57	34.175	27.37	72.38	.022	14557						
OBS	44	1.23	34.199	27.41			14544						
STD	50	1.00	34.219	27.44	65.29	.036	14535						
STD	75	.06	34.309	27.57	53.31	.051	14498						
OBS	84	-.26	34.345	27.61			14485						
STD	100	-.23	34.386	27.64	45.69	.063	14490						
STD	150	-.27	34.485	27.73	37.78	.084	14498						
OBS	164	-.09	34.505	27.73			14508						
STD	200	.03	34.547	27.76	34.59	.102	14521						
STD	250	.20	34.595	27.79	31.90	.119	14537						
STD	300	.36	34.630	27.81	30.27	.124	14553						
STD	400	.65	34.662	27.82	30.10	.165	14583						
OBS	407	.67	34.662	27.82			14584						
STD	500	.61	34.682	27.84	27.78	.194	14597						
STD	600	.66	34.673	27.83	29.48	.222	14616						
STD	700	.57	34.678	27.84	28.18	.251	14628						
STD	800	.42	34.684	27.85	26.57	.278	14638						
OBS	818	.39	34.685	27.85			14639						
STD	900	.33	34.684	27.85	25.94	.305	14651						
STD	1000	.27	34.681	27.86	25.76	.330	14664						
STD	1250	.13	34.674	27.86	24.66	.394	14699						
OBS	1471	.04	34.664	27.85			14730						
STD	1500	.04	34.664	27.85	24.81	.455	14736						
STD	1750	0.00	34.662	27.85	24.16	.517	14776						
OBS	1886	-.01	34.664	27.86			14797						
STD	2000	-.04	34.669	27.86	23.68	.576	14816						
STD	2250	-.11	34.679	27.87	21.93	.633	14855						
OBS	2303	-.13	34.681	27.88			14862						
STD	2500	-.17	34.678	27.88	21.93	.688	14895						
STD	2750	-.21	34.672	27.87	21.21	.742	14935						
OBS	2972	-.24	34.665	27.87			14971						
STD	3000	-.24	34.665	27.87	21.44	.795	14976						
STD	3250	-.27	34.667	27.87	20.33	.848	15018						
STD	3500	-.30	34.669	27.87	20.06	.898	15060						
OBS	3642	-.31	34.670	27.88			15084						
STD	3750	-.32	34.669	27.88	18.69	.947	15102						
STD	4000	-.35	34.673	27.88	17.76	.992	15145						
OBS	4319	-.33	34.655	27.86			15201						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 7	102	19FEB1963	1820	6042S	4252W	1123	520	2	13				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			135	6	.3	0.0	115	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.03	34.136	27.37	71.83	0.000	14528						
OBS	6	1.03	34.136	27.37			14528	795		263		822	
STD	10	.94	34.146	27.38	70.50	.007	14526						
STD	20	.73	34.171	27.42	67.31	.014	14518						
STD	30	.51	34.195	27.45	64.26	.021	14510						
STD	50	.09	34.240	27.51	58.58	.033	14495						
STD	75	-.41	34.291	27.57	52.47	.047	14477						
OBS	90	-.70	34.318	27.61			14465	771		305		814	
STD	100	-.93	34.335	27.63	46.51	.059	14457						
OBS	115	-1.17	34.359	27.66			14448	749		319		807	
OBS	139	-1.01	34.387	27.68			14459	722		250		802	
STD	150	-.92	34.410	27.69	40.66	.081	14467						
OBS	164	-.81	34.441	27.71			14473	671		290		803	
OBS	187	-.72	34.484	27.74			14482	642		220		802	
STD	200	-.67	34.498	27.75	34.83	.100	14488						
OBS	241	-.51	34.521	27.76			14501	601		341		799	
STD	250	-.49	34.524	27.77	33.62	.117	14505						
OBS	284	-.40	34.534	27.77			14513	575		177		797	
STD	300	-.34	34.545	27.78	32.74	.133	14520						
OBS	382	-.06	34.603	27.81			14546	531		139		798	
STD	400	-.04	34.609	27.81	29.68	.165	14551						
OBS	481	-.01	34.624	27.82			14565	521		182		798	
STD	500	-.01	34.626	27.83	27.90	.193	14569						
STD	600	-.01	34.633	27.83	27.85	.221	14585						
OBS	686	-.01	34.634	27.83			14598	518		344		798	
STD	700	-.01	34.635	27.83	27.34	.249	14601						
STD	800	-.01	34.640	27.84	26.74	.276	14618						
OBS	897	-.01	0.000	0.00			0	517		329		797	
STD	900	-.01	34.644	27.84	26.29	.303	14634						
OBS	996	-.01	34.638	27.84			14065	517		332		796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	103	20FFR1963	1400	6110S	4509W	229	520	15	10				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			105	5	1.0	0.0	130	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.27	34.178	27.39			14539	805		167		831	
STD	0	1.27	34.178	27.39	70.14	0.000	14539						
STD	10	1.28	34.129	27.35	73.88	.007	14540						
OBS	17	1.28	34.112	27.34			14541	803		137		827	
STD	20	1.28	34.113	27.34	75.11	.015	14542						
STD	30	1.29	34.127	27.35	74.06	.022	14544						
OBS	42	1.29	34.164	27.38			14547	805		178		820	
STD	50	.81	34.184	27.42	66.82	.036	14527						
OBS	67	-.28	34.224	27.51			14480	770		163		814	
STD	75	-.52	34.238	27.54	55.98	.052	14471						
OBS	89	-.74	34.263	27.57			14463	748		135		804	
STD	100	-.82	34.289	27.59	50.47	.065	14462						
OBS	124	-.79	34.347	27.64			14468	670		174		802	
OBS	140	-.71	34.377	27.66			14474	635		210		804	
STD	150	-.80	34.394	27.67	42.33	.088	14472						
OBS	171	-.85	34.433	27.71			14474	573		241		802	
OBS	191	-.34	34.478	27.72			14501	538		188		800	
STD	200	-.22	34.493	27.73	37.38	.108	14508						
OBS	223	-.22	34.516	27.75			14512	501		248		796	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 7	104	21FEB1963	0135	6205S	4507W	479	520	25	8

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
060	03	-1.0	0.0	090	3

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	1.38	0.000	0.00	0.00	0.000	0						
OBS	4	1.38	0.000	0.00			0	774		224		803	
STD	10	1.46	0.000	0.00	0.00	0.000	0						
STD	20	1.45	0.000	0.00	0.00	0.000	0						
OBS	30	1.50	34.244	27.43			14555	775		282		812	
STD	30	1.50	34.244	27.43	66.65	.003	14555						
STD	50	1.14	34.265	27.47	62.64	.016	14543						
OBS	55	1.02	34.271	27.48			14538	777		238		809	
STD	75	.70	34.300	27.52	57.52	.031	14527						
STD	100	.30	34.336	27.58	52.24	.045	14514						
OBS	111	.12	34.351	27.60			14508	761		239		802	
STD	150	-.73	34.383	27.66	43.51	.069	14475						
OBS	157	-.85	34.388	27.67			14471	724		296		804	
STD	200	-.52	34.444	27.70	39.60	.090	14494						
STD	250	.19	34.510	27.72	38.28	.109	14535						
OBS	262	.41	34.526	27.72			14548	589		285		796	
STD	300	.31	34.558	27.75	35.46	.128	14550						
OBS	366	-.06	34.594	27.80			14544	525		239		793	
STD	400	-.11	34.606	27.81	29.53	.160	14548						
OBS	472	-.04	34.613	27.82			14563	515		374			

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 7	105	24FEB1963	49	6305S	4508W	3601	520	35	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	4	- .7	0.0	270	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.03	34.032	27.29			14526	776	142	169	90	807	
STD	0	1.03	34.032	27.29	79.73	0.000	14526						
STD	10	1.05	34.056	27.31	77.99	.008	14529						
OBS	13	1.02	34.071	27.32			14528	775	175	179	91	811	
STD	20	.83	34.140	27.39	70.33	.015	14522						
STD	30	.49	34.243	27.49	60.45	.022	14510						
OBS	39	.10	34.342	27.59			14495	798	172	299	94	807	
STD	50	-.36	34.396	27.66	44.51	.032	14476						
OBS	67	-.92	34.444	27.72			14454	781	171	215	110	804	
STD	75	-1.00	34.459	27.73	37.16	.043	14451						
OBS	93	-1.02	34.236	27.56			14450	742	157	260	105	802	2
STD	100	-1.01	34.497	27.77	33.87	.051	14456						
OBS	145	-.91	34.528	27.79			14468	769	160	378	110	802	
STD	150	-.87	34.534	27.79	31.35	.068	14471						
OBS	197	-.45	34.588	27.82			14499	561	221	270	121	793	
STD	200	-.43	34.591	27.82	28.89	.083	14500						
STD	250	-.10	34.630	27.83	27.56	.097	14524						
STD	300	.14	34.654	27.84	27.13	.111	14543						
OBS	302	.15	34.655	27.84			14544	498	210	396	103	792	
STD	400	.35	34.658	27.83	28.44	.138	14569						
OBS	406	.36	34.657	27.83			14571	486	222	276	109	792	
STD	500	.38	34.668	27.84	27.28	.166	14587						
STD	600	.41	34.682	27.85	26.96	.193	14605						
OBS	618	.41	34.685	27.85			14608		194	416	137	792	
STD	700	.38	34.695	27.86	25.56	.220	14620						
STD	800	.33	34.703	27.87	24.49	.245	14634						
OBS	825	.32	34.704	27.87			14638	486	176	258	136	794	
STD	900	.28	34.700	27.87	24.35	.269	14649						
STD	1000	.24	34.691	27.86	24.77	.294	14663						
OBS	1039	.22	34.687	27.86			14668		183	395	138	794	
STD	1250	.14	34.678	27.86	24.40	.355	14700						
OBS	1262	.14	34.678	27.86			14702	509	175	385	147	793	
STD	1500	.03	34.671	27.86	24.23	.416	14736						
OBS	1510	.03	34.671	27.86			14738		171	378	134	795	
STD	1750	-.06	34.675	27.87	22.69	.475	14774						
OBS	1760	-.06	34.675	27.87			14775		209	274	143	790	
STD	2000	-.15	34.664	27.86	22.94	.532	14811						
OBS	2037	-.17	34.662	27.86			14817	520	184	311	144	798	
STD	2250	-.26	34.669	27.87	21.16	.587	14848						
OBS	2255	-.26	34.669	27.87			14849	550	201	376	141	797	
STD	2500	-.32	34.663	27.87	21.37	.640	14888						
OBS	2509	-.32	34.663	27.87			14890		208	404	139	793	
STD	2750	-.39	34.665	27.88	19.71	.691	14927						
OBS	2792	-.40	34.666	27.88			14934	583	176		133	794	4
STD	3000	-.48	34.675	27.89	17.88	.738	14966						
OBS	3039	-.30	34.676	27.88			14981	558	202		137		1
STD	3250	-.58	34.659	27.88	17.15	.782	15004						
OBS	3288	-.59	34.656	27.88			15011	591	166		122	796	
STD	3500	-.64	34.664	27.89	15.94	.823	15045						
OBS	3534	-.65	34.667	27.89			15051	587	149		127	796	
OBS	3604	-.66	34.674	27.89			15062	614	275		143	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	106	26FEB1963	1134	6629S	4535W	4254	520	65	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		0	4	.6	0.0	20	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.76	33.231	26.76	129.50	0.000	14386						
OBS	2	-1.76	33.231	26.76			14386	875		231	77	827	
STD	10	-1.61	33.569	27.03	103.72	.012	14400						
STD	20	-1.51	33.911	27.31	77.64	.021	14411						
OBS	27	-1.49	34.097	27.46			14415	789		289	85	816	
STD	30	-1.51	34.156	27.51	58.78	.028	14416						
STD	50	-1.74	34.394	27.71	39.74	.037	14412						
OBS	51	-1.75	34.399	27.71			14411	717		300	94	814	
STD	75	-1.78	34.447	27.75	35.60	.047	14414						
OBS	77	-1.78	34.445	27.75			14415	699		335	100	812	
STD	100	-1.80	34.462	27.76	33.97	.056	14418						
OBS	102	-1.80	34.463	27.76			14418	692		410	89	812	
STD	150	-1.63	34.473	27.77	33.27	.072	14434						
OBS	152	-1.62	34.474	27.77			14435	683		324	100	811	
STD	200	-1.71	34.535	27.82	27.97	.088	14439						
OBS	201	-1.71	34.537	27.82			14439	586		395	115	810	
STD	250	-.32	34.596	27.82	28.97	.102	14513						
STD	300	1.15	34.641	27.77	34.78	.118	14589						
OBS	302	1.21	34.642	27.76			14591	497		413	118	800	
STD	400	.50	34.654	27.82	29.61	.150	14576						
OBS	403	.45	34.654	27.82			14574	482		366	125	800	
STD	500	.39	34.665	27.83	27.57	.179	14587						
OBS	599	.57	34.673	27.83			14611	478		386	132	799	
STD	600	.57	34.673	27.83	28.82	.207	14612						
STD	700	.52	34.673	27.83	28.25	.235	14626						
STD	800	.45	34.673	27.84	27.62	.263	14639						
OBS	803	.45	34.673	27.84			14640	471		418	138	798	
STD	900	.41	34.675	27.84	27.20	.291	14654						
STD	1000	.37	34.676	27.84	26.98	.318	14669						
OBS	1007	.37	34.676	27.85			14669	479		410	148	808	
STD	1250	.24	34.666	27.84	26.08	.384	14704						
OBS	1303	.21	34.664	27.84			14711	492		416	158		
STD	1500	.12	34.662	27.85	25.69	.449	14740						
OBS	1551	.10	34.662	27.85			14747	506		417	155	796	
STD	1750	.02	34.663	27.85	24.31	.511	14777						
OBS	1802	0.00	34.663	27.85			14785	515		410	149	797	9
STD	2000	-.12	34.658	27.86	23.73	.571	14813						
OBS	2047	-.14	34.657	27.86			14819	521		416	160	796	
STD	2250	-.16	34.661	27.86	22.76	.629	14853						
OBS	2301	-.16	34.662	27.86			14861	534		411	142	795	
STD	2500	-.18	34.661	27.86	23.03	.687	14894						
OBS	2556	-.19	34.660	27.86			14903	539		423	136	797	
STD	2750	-.21	34.658	27.86	22.24	.743	14935						
OBS	2804	-.22	34.657	27.86			14944	545		395	157	792	
STD	3000	-.25	34.656	27.86	22.00	.799	14976						
OBS	3056	-.26	34.656	27.86			14985	551		388	153	791	
OBS	3199	-.28	34.654	27.86			15009	557		397	153	793	
STD	3250	-.28	34.654	27.86	21.16	.853	15018						
STD	3500	-.30	34.654	27.86	21.13	.905	15060						
STD	3750	-.32	34.655	27.86	19.78	.957	15103						
OBS	3813	-.32	34.655	27.86			15114	563		455	155	794	
STD	4000	-.35	34.653	27.86	19.05	1.005	15145						
OBS	4275	-.42	34.649	27.86			15190	575		410	149	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	107	27FEB1963	1505	6637S	4749W	3884	520	67	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		160	1	-5.4	0.0	200	2						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-1.80	33.617	27.08	99.73	0.000	14390						
OBS	2	-1.80	33.617	27.08			14390	801		287		814	
STD	10	-1.72	33.730	27.17	91.15	.010	14397						
STD	20	-1.64	33.877	27.28	79.95	.018	14404						
OBS	28	-1.61	33.999	27.38			14408	754		277		814	
STD	30	-1.61	34.037	27.41	67.65	.025	14409						
STD	50	-1.63	34.361	27.68	42.55	.036	14417						
OBS	51	-1.63	34.375	27.69			14416	709		300		811	
STD	75	-1.70	34.452	27.75	35.48	.046	14418						
OBS	76	-1.70	34.451	27.75			14418	681		323		810	
STD	100	-1.43	34.487	27.77	33.19	.055	14436						
OBS	101	-1.41	34.488	27.77			14437	643		303		804	
OBS	150	-.35	34.621	27.84			14496	515		321		799	
STD	150	-.35	34.621	27.84	27.07	.070	14496						
STD	200	.13	34.652	27.84	27.20	.083	14527						
OBS	203	.15	34.652	27.84			14528	479		337		798	
STD	250	.33	34.674	27.85	26.73	.097	14544						
OBS	300	.40	34.688	27.85			14555	471		410		798	
STD	300	.40	34.688	27.85	26.15	.110	14556						
OBS	400	.50	34.678	27.84			14576	468		422		797	
STD	400	.50	34.678	27.84	27.86	.137	14576						
STD	500	.52	34.678	27.84	27.43	.165	14593						
OBS	597	.49	34.682	27.84			14608	467		359		794	
STD	600	.49	34.682	27.84	27.55	.192	14608						
STD	700	.46	34.685	27.85	26.89	.220	14624						
OBS	796	.42	34.687	27.85			14637	475		408		794	
STD	800	.42	34.687	27.85	26.31	.246	14638						
STD	900	.36	34.687	27.85	25.91	.272	14652						
OBS	996	.30	34.685	27.86			14665	484		400		795	
STD	1000	.30	34.685	27.86	25.71	.298	14666						
STD	1250	.20	34.680	27.86	24.75	.361	14702						
OBS	1254	.20	34.680	27.86			14703	490		360		795	
STD	1500	.10	34.670	27.86	24.90	.423	14739						
OBS	1504	.10	34.670	27.86			14740	506		362		795	
STD	1750	.06	34.662	27.85	24.74	.485	14779						
OBS	1757	.06	34.662	27.85			14780	518		375		794	
STD	2000	-.07	34.666	27.86	23.59	.546	14815						
OBS	2011	-.08	34.666	27.86			14816	524		434		794	
STD	2250	-.16	34.666	27.87	22.42	.603	14853						
OBS	2267	-.16	34.666	27.87			14856	528		393		792	
STD	2500	-.18	34.666	27.87	22.69	.660	14894						
OBS	2523	-.18	34.666	27.87			14898	502		393		793	4
STD	2750	-.21	34.662	27.86	22.02	.715	14936						
OBS	2780	-.21	34.661	27.86			14941	547		428		793	
STD	3000	-.24	34.654	27.86	22.25	.771	14977						
OBS	3030	-.25	34.653	27.86			14981	549		371		793	
STD	3250	-.34	34.642	27.85	21.28	.825	15015						
OBS	3285	-.36	34.640	27.85			15020	557		366		792	
STD	3500	-.45	34.635	27.85	20.45	.877	15053						
OBS	3541	-.30	34.635	27.85			15067	562		401		790	1
STD	3750	-.56	34.638	27.86	17.68	.925	15091						
OBS	3873	-.52	34.642	27.86			15115	602		375		793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	108	2MAR1963	147	6405S	4904W	3533	520	49	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			240	2	-3.5	0.0	245	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	.31	33.960	27.27	81.17	0.000	14493						
OBS	4	.31	33.960	27.27			14493	789	137	161	78	820	
STD	10	.31	33.956	27.27	81.48	.008	14494						
STD	20	.32	33.948	27.26	82.01	.016	14496						
OBS	29	.32	33.942	27.26			14497	785	162	241	74	822	
STD	30	.26	33.956	27.27	81.07	.024	14495						
STD	50	-.99	34.266	27.58	51.88	.038	14445						
OBS	55	-1.31	34.349	27.66			14431	779	130	223	76	818	
STD	75	-1.43	34.444	27.74	36.89	.049	14431						
OBS	81	-1.35	34.451	27.74			14435	709	204	310	90	817	
STD	100	-1.12	34.486	27.76	34.32	.058	14450						
OBS	107	-1.01	34.495	27.76			14456	648	151	244	84	826	
STD	150	-.41	34.588	27.81	29.27	.074	14493						
OBS	158	-.30	34.605	27.82			14499	535	195	358	81	807	
STD	200	.17	34.654	27.84	27.22	.088	14528						
OBS	209	.25	34.661	27.84			14533	486	143	318	114	798	
STD	250	.28	34.663	27.84	27.25	.101	14542						
STD	300	.31	34.664	27.84	27.38	.115	14551						
OBS	314	.32	34.665	27.84			14553	475	219	303	100	808	
STD	400	.43	34.681	27.85	27.18	.142	14573						
OBS	416	.45	34.684	27.85			14576	468		289	114	804	
STD	500	.50	34.691	27.85	26.32	.169	14593						
STD	600	.49	34.692	27.85	26.85	.196	14609						
OBS	625	.50	34.693	27.85			14613	463		341	129	801	
STD	700	.47	34.691	27.85	26.50	.222	14624						
STD	800	.42	34.688	27.85	26.24	.249	14638						
OBS	831	.40	34.687	27.85			14642	474	140	340	127	803	
STD	900	.37	34.687	27.85	25.93	.275	14652						
STD	1000	.32	34.689	27.86	25.60	.301	14667						
OBS	1044	.30	34.690	27.86			14672	482	192	332	131	802	
STD	1250	.20	34.698	27.87	23.40	.362	14703						
OBS	1339	.16	34.699	27.88			14715	503	192	320	124	800	
STD	1500	.09	34.681	27.86	23.98	.421	14739						
OBS	1629	.04	34.666	27.86			14757	526	188	362	139	803	
STD	1750	0.00	34.662	27.85	24.15	.481	14776						
OBS	1857	-.04	34.661	27.86			14792	529	227	377	132	802	
STD	2000	-.08	34.662	27.86	23.78	.541	14814						
OBS	2120	-.11	34.665	27.86			14833	535	205	376	132	800	
STD	2250	-.15	34.669	27.87	22.29	.599	14854						
OBS	2381	-.18	34.672	27.87			14874	554	227	385	131	801	
STD	2500	-.21	34.668	27.87	22.23	.654	14893						
OBS	2642	-.24	34.661	27.87			14915	559	212	350	133	802	
STD	2750	-.25	34.659	27.86	21.73	.709	14933						
OBS	2904	-.27	34.656	27.86			14959	561	190	389	128	798	
STD	3000	-.28	34.654	27.86	21.77	.764	14975						
OBS	3163	-.34	34.652	27.86			15000	572	211	356	130	801	
STD	3250	-.41	34.651	27.87	19.77	.816	15012						
STD	3500	-.76	34.646	27.88	15.68	.860	15039						
OBS	3571	-.90	34.645	27.88			15045	653	203	366	94	802	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	109	3MAR1963	1457	6259S	4915W	2902	520	39	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			60	5	.2	0.0	30	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.21	34.057	27.36	73.27	0.000	14489						
OBS	3	.21	34.057	27.36			14489	762	149		79	801	
STD	10	.21	34.054	27.35	73.48	.007	14491						
STD	20	.20	34.049	27.35	73.81	.015	14492						
OBS	27	.20	34.045	27.35			14493	770			81	806	
STD	30	.19	34.057	27.36	73.10	.022	14493						
STD	50	-.07	34.178	27.47	62.49	.036	14487						
OBS	51	-.09	34.186	27.47			14485	771	179		78	800	
OBS	75	-1.12	34.396	27.69			14444	742			85	801	
STD	75	-1.12	34.396	27.69	41.56	.049	14445						
OBS	98	-1.19	34.470	27.75			14446	695	105		89	802	
STD	100	-1.17	34.475	27.75	34.93	.058	14448						
OBS	146	-.61	34.562	27.80			14482	578	165		97	797	
STD	150	-.57	34.567	27.80	30.15	.074	14485						
OBS	193	-.23	34.606	27.82			14508	530	187		95	794	
STD	200	-.18	34.611	27.82	28.59	.089	14512						
STD	250	.09	34.639	27.83	27.90	.103	14532						
OBS	299	.26	34.656	27.84			14548	480			105	793	
STD	300	.26	34.656	27.84	27.71	.117	14549						
OBS	383	.41	34.672	27.84			14569	469	203		110	790	
STD	400	.42	34.674	27.84	27.62	.145	14573						
STD	500	.46	34.685	27.85	26.48	.172	14591						
OBS	575	.43	34.689	27.85			14601	467	192		127	792	
STD	600	.42	34.689	27.85	26.50	.198	14605						
STD	700	.36	34.688	27.86	25.91	.225	14619						
OBS	769	.31	34.685	27.86			14628	476	186		126	795	
STD	800	.30	34.684	27.86	25.66	.250	14633						
STD	900	.26	34.679	27.85	25.73	.276	14647						
OBS	962	.24	34.676	27.85			14656	485	190		126	792	
STD	1000	.22	34.675	27.85	25.90	.302	14662						
OBS	1130	.16	34.671	27.85			14680	497	154		119	803	
STD	1250	.09	34.670	27.86	24.55	.365	14697						
OBS	1294	.07	34.671	27.86			14703	518	103		127	796	
OBS	1402	.05	34.676	27.86			14720	525	214		129	795	
STD	1500	-.01	34.676	27.87	23.44	.425	14734						
OBS	1510	-.02	34.676	27.87			14735	513	178		130	791	
OBS	1677	-.10	34.661	27.86			14759	522	183		126	796	
STD	1750	-.12	34.661	27.86	23.09	.483	14771						
OBS	1965	-.18	34.716	27.91			14804	538	183		128	793	2
STD	2000	-.19	34.662	27.86	22.70	.540	14809						
OBS	2229	-.29	34.662	27.87			14843	547	188		126	795	
STD	2250	-.29	34.662	27.87	21.32	.595	14847						
STD	2500	-.35	34.660	27.87	21.22	.649	14886						
STD	2750	-.48	34.659	27.88	19.09	.699	14923						
OBS	2783	-.50	34.658	27.87			14928	577	170		116	815	
OBS	2859	-.58	34.652	27.87			14937	589	118		113	824	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	110	4 MAR 1963	1450	62025	4851W	3286	520	28	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		245	05	1.0	0.0	240	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.32	34.113	27.39	69.56	0.000	14495						
OBS	6	.32	34.113	27.39			14496	772	138	304	79	816	
STD	10	.32	34.106	27.39	70.06	.007	14497						
STD	20	.32	34.094	27.38	70.93	.014	14498						
STD	30	.32	34.092	27.38	71.07	.021	14500						
OBS	31	.32	34.091	27.38			14500	775	160	405	82	816	
STD	50	.31	34.104	27.39	70.02	.035	14503						
OBS	53	.27	34.115	27.40			14502	765	127	417	81	818	
STD	75	-.97	34.361	27.65	44.79	.050	14452						
OBS	78	-1.14	34.397	27.69			14445	741		334	103		
STD	100	-1.32	34.485	27.77	33.67	.059	14441						
OBS	101	-1.31	34.487	27.77			14442	684	123	335	96	827	
STD	150	-.65	34.593	27.83	27.79	.075	14482						
OBS	153	-.59	34.597	27.83			14485	575	206	448	105	831	
OBS	195	0.00	34.650	27.84			14520	510	190	429	110	826	9
STD	200	.03	34.653	27.85	26.53	.088	14522						
STD	250	.23	34.675	27.85	26.04	.101	14540						
OBS	289	.23	34.677	27.85			14546	492	171	469	114	797	
STD	300	.25	34.678	27.85	25.99	.114	14548						
OBS	385	.33	34.678	27.85			14566	481	160	370	117	806	
STD	400	.34	34.680	27.85	26.71	.141	14569						
STD	500	.40	34.690	27.85	25.71	.167	14588						
OBS	577	.41	34.699	27.86			14601	478	189	381	122	802	
STD	600	.40	34.700	27.86	25.59	.193	14605						
STD	700	.37	34.703	27.87	24.85	.218	14620						
OBS	776	.32	34.702	27.87			14630	487	164	463	115	793	
STD	800	.30	34.700	27.87	24.49	.243	14633						
STD	900	.24	34.693	27.87	24.54	.267	14647						
OBS	986	.19	34.689	27.87			14658	498	199	514	127	793	
STD	1000	.18	34.690	27.87	24.41	.292	14660						
OBS	1105	.14	34.699	27.88			14676	494	178	386	129	795	
OBS	1233	.09	34.686	27.87			14695	518	173	428	131	808	
STD	1250	.08	34.685	27.87	23.38	.351	14697						
OBS	1366	.03	34.678	27.87			14714	512	131	436	117		
OBS	1450	-.02	34.666	27.86			14725	518	193	451	129	799	
STD	1500	-.05	34.662	27.86	24.18	.411	14732						
OBS	1675	-.14	34.654	27.85			14757	533	176	478	131	800	
STD	1750	-.16	34.651	27.85	23.43	.470	14769						
OBS	1899	-.20	34.649	27.85			14792	549	190	483	120	800	
STD	2000	-.23	34.650	27.86	23.19	.529	14807						
OBS	2138	-.28	34.653	27.86			14829	556	186	445	125	807	
STD	2250	-.32	34.658	27.87	21.29	.584	14845						
OBS	2382	-.37	34.663	27.87			14866	563	183	494	122	800	
STD	2500	-.41	34.661	27.87	20.51	.636	14884						
OBS	2627	-.45	34.659	27.87			14904	574	175	444	105	810	
STD	2750	-.48	34.661	27.88	19.00	.686	14923						
OBS	2885	-.51	34.665	27.88			14945	591	193	355	106	814	
STD	3000	-.54	0.000	0.00	0.00	0.000	0						
OBS	3148	-.60	34.722	27.93			14987	582	161	425	117		2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	111	5MAR1963	0818	6107S	4859W	2782	520	18	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			125	08	-2.3	0.0	230	7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.87	34.241	27.47	62.88	0.000	14522						
OBS	3	.87	34.241	27.47			14522	772	137	354	77	812	
STD	10	.92	34.233	27.46	63.79	.006	14526						
OBS	17	.95	34.228	27.45			14528	763	163	292	76	817	
STD	20	.95	34.227	27.45	64.36	.013	14529						
STD	30	.94	34.229	27.45	64.18	.019	14530						
OBS	32	.94	34.230	27.45			14530	759	131	376	79	815	
OBS	49	.96	34.242	27.46			14534	764	203	325	102	814	
STD	50	.97	34.249	27.47	62.77	.032	14535						
OBS	67	.93	34.390	27.58			14538	734	150	423	94	801	
STD	75	.60	34.424	27.63	47.51	.046	14525						
STD	100	-.65	34.483	27.74	36.33	.056	14472						
OBS	102	-.77	34.485	27.75			14467	697	194	397	97	802	
STD	150	-.73	34.559	27.80	30.07	.073	14477						
STD	200	-.69	34.600	27.84	26.93	.087	14488						
OBS	216	-.68	34.606	27.84			14491	672	203	446	99	805	
STD	250	-.50	34.624	27.85	25.94	.100	14505						
OBS	297	-.24	34.641	27.85			14525	525		422	111	815	
STD	300	-.23	34.642	27.85	25.95	.113	14526						
STD	400	.04	34.672	27.86	25.39	.139	14555						
OBS	463	.11	34.683	27.87			14569	496		383	113	801	
STD	500	.13	34.685	27.87	24.38	.164	14576						
STD	600	.15	34.682	27.86	25.16	.188	14593						
OBS	631	.14	34.680	27.86			14598	504		416	121	806	
STD	700	.10	34.672	27.86	25.25	.214	14607						
STD	800	.10	34.669	27.85	25.29	.239	14623						
OBS	819	.11	34.670	27.85			14627	516	179	385	122	806	
OBS	867	.20	34.680	27.86			14639	495	219	328	122	801	
STD	900	.20	34.684	27.86	24.95	.264	14645						
STD	1000	.14	34.689	27.87	24.18	.289	14658						
OBS	1037	.09	34.689	27.87			14662	507	204	343	121	797	
OBS	1215	0.00	34.691	27.88			14688	518	227	332	119	807	9
STD	1250	-.02	34.673	27.86	23.47	.348	14692						
OBS	1331	-.05	34.635	27.83			14704	550	172	411	115	799	
OBS	1449	-.10	34.645	27.85			14721	548	241	340	126	798	
STD	1500	-.12	34.653	27.85	24.22	.408	14729						
OBS	1631	-.16	34.672	27.87			14749	536	187	336	123	799	
STD	1750	-.20	34.671	27.87	21.66	.465	14767						
OBS	1829	-.23	34.667	27.87			14779	542	236	287	114	805	
OBS	1952	-.30	34.666	27.87			14796	552	196	377	117	795	
STD	2000	-.32	34.666	27.87	21.17	.519	14803						
STD	2250	-.40	34.666	27.88	19.97	.570	14842						
OBS	2271	-.40	34.666	27.88			14846	560	210	336	117	794	
STD	2500	-.46	0.000	0.00	0.00	0.000	0						
OBS	2603	-.50	34.530	27.77			14896	645	195	361	89	797	2
OBS	2695	0.00	34.551	0.00			0	621	191	420	94	796	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	112	6MAR1963	1005	6035S	4742W	1523	520	7	20				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			160	5	-2.1	0.0	140	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.03	34.419	27.60	50.31	0.000	14532						
OBS	4	1.03	34.419	27.60			14532	740		297	79	814	
STD	10	1.05	34.419	27.60	50.40	.005	14534						
STD	20	1.06	34.419	27.60	50.48	.010	14536						
OBS	29	1.06	34.419	27.60			14537	740		437		813	
STD	30	1.06	34.418	27.60	50.51	.015	14538						
STD	50	1.01	34.409	27.59	50.94	.025	14539						
OBS	54	1.00	34.407	27.59			14538	736		400	82	813	
STD	75	1.04	34.414	27.59	50.97	.038	14544						
OBS	80	1.02	34.419	27.60			14543	731		467	86	813	
STD	100	.57	34.468	27.67	43.73	.050	14528						
OBS	106	.42	34.484	27.69			14521	664		467		819	
STD	150	.07	34.515	27.73	37.26	.070	14514						
OBS	156	.06	34.516	27.73			14514	623		545	91	808	
STD	200	-.04	34.548	27.76	34.14	.088	14517						
OBS	207	-.04	34.553	27.77			14518	600		525	102	805	
STD	250	-.03	34.569	27.78	32.55	.105	14526						
STD	300	.03	34.583	27.79	31.84	.121	14537						
OBS	312	.05	34.586	27.79			14540	560		543		820	
STD	400	.21	34.627	27.81	29.89	.152	14563						
OBS	414	.24	34.633	27.82			14565	525		539	107	814	
STD	500	.31	34.658	27.83	27.55	.180	14583						
OBS	595	.30	34.666	27.84			14598	507		367	111	812	
STD	600	.30	34.666	27.84	27.45	.208	14599						
OBS	645	.27	34.661	27.84			14605	512		462		813	
STD	700	.24	34.661	27.84	27.09	.235	14613						
STD	800	.20	34.665	27.85	26.41	.262	14628						
OBS	848	.19	34.667	27.85			14635	513		472	111	801	
STD	900	.18	34.661	27.84	26.45	.288	14643						
STD	1000	.15	34.657	27.84	26.67	.315	14658						
OBS	1028	.14	34.657	27.84			14662	512		543	121	801	
OBS	1103	.08	34.673	27.86			14672	512		433		802	
OBS	1192	.05	34.662	27.85			14685	515		519	110	806	
STD	1250	.02	34.663	27.85	24.50	.379	14694						
OBS	1275	0.00	34.663	27.85			14696	519		508	121	798	9
OBS	1353	-.03	34.657	27.85			14708	522		453		796	
OBS	1444	0.00	34.668	0.00			0	525		430	106	812	
OBS	1496	-.12	34.664	27.86			14649	531		603	121	812	
STD	1500	-.12	34.664	27.86	23.41	.439	14729						
OBS	1555	-.16	34.658	27.86			14657	537		572		807	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	113	7MAR1963	526	6006J	4904w	2952	52J	9	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		245	2	-2.2	0.0	240	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.90	34.365	27.56	53.62	0.000	14525						
OBS	2	.90	34.365	27.56			14525	141		391	14	806	
STD	10	.92	34.359	27.56	54.19	.005	14527						
STD	20	.93	34.354	27.55	54.63	.011	14529						
OBS	27	.93	34.352	27.55			14530	743		404	78	810	
STD	30	.93	34.353	27.55	54.68	.016	14531						
STD	50	.89	34.357	27.56	54.08	.027	14532						
OBS	52	.88	34.358	27.56			14532	742		441	83	810	
STD	75	.85	34.372	27.57	52.95	.041	14535						
OBS	79	.84	34.374	27.57			14535	728		388	82	806	
STD	100	.81	34.375	27.58	52.22	.054	14537						
OBS	104	.80	34.376	27.58			14537	726		446	82	809	
STD	150	.33	34.451	27.67	43.54	.078	14525						
OBS	154	.28	34.459	27.68			14523	652		462	87	802	
STD	200	.15	34.495	27.71	39.22	.098	14525						
OBS	204	.15	34.497	27.71			14526	625		467	88	803	
STD	250	.25	34.534	27.74	36.78	.117	14538						
STD	300	.39	34.570	27.76	34.98	.135	14553						
OBS	307	.41	34.575	27.76			14555	509		490	74	800	
STD	400	.29	34.609	27.80	31.71	.169	14566						
OBS	409	.27	34.611	27.80			14566	556		459	86	797	
STD	500	.29	34.639	27.82	28.90	.199	14583						
STD	600	.32	34.657	27.83	28.28	.228	14601						
OBS	619	.33	34.659	27.83			14604	527		505	103	796	
STD	700	.19	34.649	27.83	27.64	.255	14611						
STD	800	.01	34.635	27.83	27.21	.283	14619						
OBS	823	-.03	34.632	27.83			14620	540		458	88	800	
STD	900	-.02	34.644	27.84	26.31	.310	14634						
STD	1000	-.01	34.662	27.85	25.01	.335	14651						
OBS	1036	.01	34.670	27.86			14658	528		555	86	799	
OBS	1229	.03	34.677	27.86			14691	527		478	105	796	
STD	1250	.05	34.681	27.87	23.42	.396	14695						
OBS	1379	.15	34.699	27.88			14721	521		428	111	792	
OBS	1488	.17	34.695	27.87			14740	519		486	113	795	
STD	1500	.15	34.692	27.87	23.74	.455	14742						
OBS	1591	.02	34.672	27.86			14750	518		447	97	798	
OBS	1749	0.00	34.675	27.86			14776	525		523	106	790	9
STD	1750	0.00	34.675	27.86	23.21	.513	14776						
STD	2000	-.05	34.669	27.86	23.55	.572	14816						
OBS	2038	-.06	34.668	27.86			14821	530		430	113	790	
STD	2250	-.12	34.665	27.86	22.92	.630	14855						
OBS	2267	-.12	34.665	27.86			14857	538		575	111	789	
STD	2500	-.16	34.670	27.87	22.64	.687	14895						
OBS	2532	-.16	34.694	27.89			14901	549		452	108	792	2
STD	2750	-.19	34.671	27.87	21.47	.742	14936						
OBS	2794	-.20	34.672	27.87			14943	549		445	111	790	
OBS	2911	-.22	34.666	27.87			14962	547		408	87	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	114	8MAR1963	828	5913S	4852W	3921	484	98	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			60	2	1.0	0.0	60	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.93	34.309	27.52	58.06	0.000	14526						
OBS	2	.93	34.309	27.52			14526	699	202	440	126	804	
STD	10	.94	34.299	27.51	58.91	.006	14528						
STD	20	.95	34.292	27.50	59.47	.012	14529						
OBS	27	.95	34.291	27.50			14530	712	180	441	96	802	
STD	30	.95	34.293	27.50	59.36	.018	14531						
STD	50	.92	34.313	27.52	57.65	.029	14533						
OBS	52	.92	34.316	27.52			14533	675	168	317	91	804	
STD	75	.92	34.341	27.54	55.77	.044	14538						
OBS	79	.92	34.347	27.55			14538	699		341	102	802	
STD	100	.78	34.396	27.60	50.45	.057	14536						
OBS	104	.75	34.406	27.61			14535	585	209	337	98	798	
STD	150	.65	34.481	27.67	43.19	.080	14540						
OBS	155	.65	34.486	27.68			14540	584	232	424	95	794	
STD	200	.66	34.489	27.68	42.74	.102	14548						
OBS	205	.67	34.488	27.68			14549	455	190	421	103	793	
STD	250	.86	34.544	27.71	39.94	.122	14566						
STD	300	1.10	34.615	27.75	36.37	.142	14586						
OBS	309	1.15	34.629	27.76			14590	492	196	453	110	792	
STD	400	1.30	34.670	27.78	34.12	.177	14612						
OBS	411	1.30	34.672	27.78			14613	458	208	409	93	791	
STD	500	1.26	34.683	27.79	32.55	.210	14626						
STD	600	1.16	34.684	27.80	32.49	.243	14638						
OBS	622	1.13	34.685	27.80			14640	438		497	119	797	
STD	700	1.14	34.699	27.82	31.13	.274	14654						
STD	800	1.15	34.714	27.83	30.18	.305	14671						
OBS	828	1.15	34.717	27.83			14676	442	197	444	134	791	
STD	900	1.08	34.713	27.83	29.85	.335	14685						
STD	1000	.97	34.703	27.83	29.95	.365	14696						
OBS	1041	.92	34.698	27.83			14700	477	209	424	131	796	
STD	1250	.78	34.688	27.83	29.29	.439	14729						
OBS	1267	.77	34.687	27.83			14730	481	155	402	143	795	
STD	1500	.33	34.665	27.84	27.35	.510	14749						
OBS	1529	.27	34.662	27.84			14751	511	114	476	135	794	
STD	1750	.14	34.659	27.84	25.68	.576	14782						
OBS	1792	.13	34.660	27.85			14789	521	204	379	141	788	
STD	2000	.12	34.668	27.85	25.29	.640	14823						
OBS	2065	.11	34.671	27.86			14834	522	228	447	142	791	
STD	2250	.01	34.671	27.86	23.80	.701	14860						
OBS	2314	-.03	34.669	27.86			14869	533	187	439	134	788	
STD	2500	-.08	34.652	27.85	24.74	.762	14898						
OBS	2579	-.10	34.645	27.85			14911	541	175	424	130	793	
STD	2750	-.14	34.646	27.85	23.91	.823	14938						
OBS	2841	0.00	34.685	0.00			0	548	188	401	142	794	2
STD	3000	-.21	34.647	27.85	23.25	.882	14978						
OBS	3103	-.23	34.647	27.85			15048	557	157	485	123	789	
STD	3250	-.27	34.648	27.86	21.82	.938	15018						
OBS	3366	-.29	34.650	27.86			15090	566	169	389	130	793	
STD	3500	-.31	34.659	27.87	20.57	.991	15059						
OBS	3647	-.33	34.666	27.87			15138	567	208	466	133	791	
STD	3750	-.34	34.662	27.87	18.97	1.040	15101						
OBS	3905	-.34	34.646	27.86			15182	566	160	452	131	785	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	115	9MAR1963	1355	5854S	4857W	3705	484	88	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			320	05	2.0	0.0	320	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.20	34.249	27.45	64.30	0.000	14537						
OBS	3	1.20	34.249	27.45			14537	734				803	
STD	10	1.19	34.239	27.44	65.03	.006	14538						
STD	20	1.16	34.240	27.45	64.69	.013	14538						
OBS	21	1.15	34.241	27.45			14538	734				803	
STD	30	1.07	34.266	27.47	62.13	.019	14536						
OBS	40	.97	34.297	27.50			14534	717				804	
STD	50	.93	34.304	27.51	58.40	.031	14534						
OBS	61	.91	34.310	27.52			14535	723				803	
STD	75	.89	34.345	27.55	55.31	.046	14537						
OBS	81	.89	34.360	27.56			14538	717				801	
STD	100	.86	34.369	27.57	53.04	.059	14540						
OBS	124	.83	34.365	27.57			14542	717				802	
STD	150	.80	34.386	27.59	51.35	.085	14545						
OBS	168	.78	34.404	27.60			14547	666				803	
STD	200	.68	34.431	27.63	47.23	.110	14548						
STD	250	.50	34.468	27.67	43.39	.132	14549						
OBS	261	.46	34.475	27.68			14549	621				799	
STD	300	.37	34.497	27.70	40.41	.153	14551						
OBS	357	.28	34.524	27.73			14557	603				798	
STD	400	.30	34.539	27.74	37.04	.192	14565						
STD	500	.30	34.568	27.76	34.23	.228	14582						
OBS	568	.36	34.584	27.77			14596	534				795	
STD	600	.38	34.594	27.78	33.37	.262	14602						
STD	700	.42	34.623	27.80	31.29	.294	14621						
OBS	752	.44	34.635	27.81			14630	514				794	
STD	800	.43	34.639	27.81	29.97	.325	14638						
STD	900	.39	34.640	27.81	29.65	.354	14653						
OBS	956	.36	34.642	27.82			14660	517				786	
STD	1000	.32	34.638	27.82	29.36	.384	14666						
STD	1250	.16	34.628	27.82	28.27	.456	14700						
OBS	1338	.13	34.628	27.82			14713	501				784	
STD	1500	.24	34.658	27.84	27.10	.525	14745						
OBS	1534	.27	34.664	27.84			14752	504				785	
OBS	1732	.31	34.669	27.84			14787	505				780	
STD	1750	.30	34.669	27.84	26.55	.592	14790						
OBS	1933	.15	34.664	27.85			14814	509				781	
STD	2000	.09	34.664	27.85	25.43	.657	14822						
OBS	2129	.01	34.661	27.85			14840	505				780	
STD	2250	0.00	34.652	27.85	25.12	.720	14860						
OBS	2331	0.00	34.646	27.84			14874	519				780	9
STD	2500	-.06	34.649	27.85	25.27	.783	14899						
OBS	2538	-.07	34.651	27.85			14906	531				780	
OBS	2750	-.13	34.651	27.85			14939	493				778	4
STD	2750	-.13	34.651	27.85	23.68	.845	14939						
OBS	2964	-.20	34.650	27.85			14972	535				782	
STD	3000	-.21	0.000	0.000	0.000	0.000	0						
OBS	3183	-.27	34.706	27.90			15008	533				776	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	116	9MAR1963	1952	5843S	485Uw	3819	484	88	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			295	6	3.4	U.U	29U	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.56	34.055	27.27	81.39	0.000	14550						
OBS	5	1.56	34.055	27.27			14550	750				806	
STD	10	1.57	34.056	27.27	81.36	.008	14552						
STD	20	1.57	34.059	27.27	81.13	.016	14554						
STD	30	1.57	34.063	27.28	80.87	.024	14556						
STD	50	1.58	34.073	27.28	80.14	.040	14559						
OBS	51	1.58	34.074	27.28			14559	743				801	
STD	75	1.52	34.079	27.29	79.56	.060	14561						
OBS	99	1.47	34.115	27.32			14562	689				797	
STD	100	1.47	34.120	27.33	75.91	.080	14563						
OBS	144	1.53	34.354	27.51			14575	522				786	
STD	150	1.53	34.372	27.53	57.27	.113	14577						
STD	200	1.50	34.481	27.62	49.01	.140	14586						
OBS	238	1.48	34.510	27.64			14591	459				784	
STD	250	1.50	34.520	27.65	46.23	.164	14594						
STD	300	1.58	34.552	27.67	44.67	.186	14607						
OBS	329	1.64	34.564	27.67			14613	437				784	
STD	400	1.68	34.602	27.70	42.21	.230	14628						
OBS	447	1.68	34.625	27.72			14633	430				784	
STD	500	1.71	34.647	27.73	38.86	.270	14646						
OBS	568	1.72	34.669	27.75			14657	371				784	
STD	600	1.69	34.673	27.76	37.70	.309	14662						
STD	700	1.59	34.683	27.77	36.11	.345	14674						
OBS	709	1.58	34.684	27.77			14674	437				784	
STD	800	1.55	34.707	27.79	34.16	.381	14689						
OBS	855	1.53	34.719	27.80			14696	431				785	
STD	900	1.51	34.724	27.81	32.85	.414	14704						
STD	1000	1.40	34.720	27.81	32.58	.447	14715						
OBS	1008	1.39	34.719	27.81			14715	454				785	
OBS	1114	1.12	34.688	27.81			14720	471				780	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	117	10MAR1963	50	5843S	4741W	2999	484	87	13				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		305	6	3.2	0.0	290	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.64	33.909	27.07	100.47	0.000	14596						
OBS	5	2.64	33.909	27.07			14596	750		289	13		
STD	10	2.63	33.903	27.06	100.89	.010	14597						
STD	20	2.62	33.894	27.06	101.44	.020	14598						
STD	30	2.60	33.900	27.06	100.94	.030	14599						
OBS	46	2.58	33.894	27.06			14599	743		275	44	818	
STD	50	2.40	33.896	27.08	99.63	.050	14593						
STD	75	1.21	33.929	27.19	88.85	.074	14545						
OBS	89	.50	33.962	27.26			14515	737		293	47	811	
STD	100	.23	34.003	27.31	77.17	.095	14506						
OBS	130	-.08	34.131	27.43			14497	677		321	53	804	
STD	150	.19	34.207	27.48	61.30	.129	14515						
STD	200	1.15	34.371	27.55	54.85	.158	14569						
OBS	214	1.50	34.410	27.56			14586	484		305	79	793	
STD	250	1.72	34.489	27.61	50.28	.185	14604						
OBS	296	1.81	34.559	27.66			14615	435		437	78	791	
STD	300	1.82	34.563	27.66	45.75	.209	14617						
STD	400	2.01	34.614	27.68	44.11	.254	14642						
OBS	404	2.01	34.614	27.68			14642	413		338	88	798	
STD	500	2.02	34.647	27.71	41.50	.296	14660						
OBS	518	2.01	0.000	0.00			0	409		329	94		
STD	600	1.99	34.674	27.73	40.26	.337	14675						
OBS	648	1.97	34.684	27.74			14655	413		361	85	790	
STD	700	1.93	34.696	27.76	38.11	.376	14689						
OBS	786	1.84	34.713	27.78			14672	418		356	93	796	
STD	800	1.82	34.714	27.78	36.07	.414	14701						
STD	900	1.73	34.722	27.79	35.03	.449	14713						
OBS	935	1.71	34.723	27.79			14691	437		341	82	796	
STD	1000	1.75	34.727	27.79	35.39	.484	14731						
OBS	1038	1.76	34.728	27.79			14710	440		347	98	796	
OBS	1143	1.52	34.725	27.81			14716	448		336		789	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	118	10MAR1963	2019	5849S	4459W	2440	484	84	13				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			345	4	2.7	0.0	350	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.68	34.125	27.32	76.91	0.000	14557						
OBS	4	1.68	34.125	27.32			14557	743	199	289	56	801	
STD	10	1.68	34.129	27.32	76.59	.008	14558						
STD	20	1.68	34.136	27.33	76.07	.015	14560						
STD	30	1.68	34.143	27.33	75.54	.023	14562						
STD	50	1.68	34.147	27.33	75.27	.038	14565						
OBS	57	1.68	34.162	27.35			14566	734	172	277	61	802	
STD	75	1.39	34.232	27.42	67.05	.056	14557						
STD	100	.99	34.335	27.53	56.40	.071	14545						
OBS	112	.81	34.387	27.59			14539	608	123	292	37	791	7
STD	150	.84	34.463	27.65	45.81	.097	14548						
OBS	164	.92	34.481	27.65			14553	543	229	321	85		
STD	200	1.06	34.529	27.68	42.23	.119	14567						
STD	250	1.25	34.583	27.71	39.68	.139	14584						
OBS	273	1.34	34.602	27.72			14592	483	253	304	94	786	
STD	300	1.42	34.626	27.74	37.86	.159	14600						
OBS	378	1.54	34.675	27.77			14618	451	262	437	101	790	
STD	400	1.53	34.680	27.77	35.19	.195	14622						
STD	500	1.38	34.686	27.79	33.26	.229	14632						
OBS	513	1.35	34.685	27.79			14632	461		342	103	786	
STD	600	1.21	34.693	27.81	32.25	.262	14641						
OBS	650	1.13	34.695	27.81			14645	473		327	112		
STD	700	1.02	34.687	27.81	31.03	.294	14649						
STD	800	.84	34.676	27.82	30.47	.325	14657						
OBS	808	.83	34.675	27.82			14657	493	261	362	120	788	
STD	900	.80	34.695	27.83	28.81	.354	14672						
OBS	967	.80	34.711	27.85			14682	483	177	358	121	787	
STD	1000	.80	34.712	27.85	27.83	.382	14688						
OBS	1129	.75	34.707	27.85			14707	480	259	346	126	786	
OBS	1236	.59	34.703	27.85			14717	491	263	347	120	794	
STD	1250	.58	34.702	27.85	26.36	.450	14719						
OBS	1343	.53	34.694	27.85			14732	494	232	337	131	789	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	119	12MAR1963	1236	5308S	4902W	3279	484	38	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	03	8.0	0.0	245	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.28	34.077	26.93	113.30	0.000	14709						
OBS	6	5.28	34.077	26.93			14710	698	229	439	107	801	
STD	10	5.28	34.080	26.94	113.15	.011	14711						
STD	20	5.27	34.085	26.94	112.80	.023	14712						
OBS	27	5.27	34.087	26.94			14713	699	227	438	80	802	
STD	30	5.27	34.087	26.94	112.70	.034	14714						
STD	50	5.26	34.083	26.94	113.07	.056	14717						
OBS	51	5.26	34.083	26.94			14717	688	211	371		801	
STD	75	5.20	34.081	26.95	113.11	.085	14718						
OBS	76	0.00	34.081	0.00			0	704	221	338	105	800	
OBS	96	5.06	34.106	26.98			14716	694	200	335	112	801	
STD	100	4.99	34.113	27.00	108.23	.112	14714						
OBS	145	4.17	34.180	27.14			14688	660	245	403	98	800	
STD	150	4.13	34.181	27.14	94.47	.163	14687						
OBS	187	3.99	34.178	27.16			14687	677	229	419	112	801	
STD	200	3.93	34.175	27.16	93.30	.210	14687						
STD	250	3.72	34.168	27.18	92.12	.256	14686						
OBS	276	3.60	34.165	27.18			14685	644	234	438	122	799	
STD	300	3.49	34.168	27.20	90.23	.302	14684						
OBS	366	3.18	34.184	27.24			14682	626	162	409	117	798	
STD	400	3.03	34.187	27.26	85.34	.390	14681						
STD	500	2.68	34.208	27.30	80.47	.473	14682						
OBS	551	2.55	34.224	27.33			14685	578	271	497	124	796	
STD	600	2.50	34.259	27.36	75.96	.551	14692						
STD	700	2.46	34.340	27.43	69.77	.624	14707						
OBS	741	2.47	34.376	27.46			14715	468	234	443	143	795	
STD	800	2.45	34.424	27.50	63.77	.691	14724						
STD	900	2.44	34.484	27.54	59.70	.752	14741						
OBS	940	2.45	34.501	27.56			14748	417	244	430	135	793	
STD	1000	2.48	34.504	27.56	59.27	.812	14760						
OBS	1015	2.49	34.504	27.56			14763	407	257	405	134	796	
STD	1250	2.32	34.591	27.64	51.80	.951	14795						
OBS	1284	2.28	34.607	27.66			14799	400	263	470	145	792	
STD	1500	2.15	34.662	27.71	46.26	1.073	14830						
OBS	1555	2.12	34.672	27.72			14838	406	230	377	143	787	
STD	1750	1.94	34.695	27.75	42.08	1.184	14862						
OBS	1829	1.86	34.701	27.76			14873	417	297	445	145	785	
STD	2000	1.73	34.711	27.78	40.01	1.286	14895						
OBS	2098	1.68	34.715	27.79			14910	432	240	437	141	784	
STD	2250	1.66	34.718	27.79	39.48	1.386	14934						
OBS	2370	1.66	34.719	27.79			14955	443	263	431	130	783	
STD	2500	1.63	34.723	27.80	40.21	1.485	14975						
OBS	2642	1.56	34.727	27.81			14997	451	231	406	142	782	
STD	2750	1.45	34.730	27.82	37.69	1.583	15010						
OBS	2916	1.29	34.733	27.83			15031	468	223	487	152	784	
STD	3000	1.34	34.733	27.83	36.98	1.676	15047						
OBS	3191	1.20	34.728	27.83			15074	469	264	392	138		
STD	3250	.97	0.000	0.00	0.00	0.000	0						
OBS	3272	.87	34.750	27.87			15074	485	253	444	138		2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 7	120	14MAR1963	1048	5152S	5640W	878	485	16	11				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			350	06	9.2	0.0	360	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	0.00	0.000	0.00	0.00	0.000	0						
STD	10	0.00	0.000	0.00	0.00	0.000	0						
OBS	12	7.53	34.060	26.63			14801	669	134	283	5	815	
STD	20	7.54	34.046	26.61	143.89	.007	14802						
STD	30	7.54	34.037	26.61	144.79	.022	14804						
OBS	38	7.55	34.037	26.60			14806	665	133	269	3	816	
STD	50	7.49	34.055	26.63	142.92	.050	14805						
OBS	65	7.31	34.082	26.67			14801	676	139	286	3	816	
STD	75	7.10	34.085	26.71	136.06	.085	14795						
OBS	90	6.72	34.086	26.76			14782	669	154	313	4	816	
STD	100	6.42	34.092	26.80	126.88	.118	14772						
OBS	144	5.25	34.124	26.97			14732	661	162	296	10	809	
STD	150	5.15	34.127	26.99	109.58	.177	14729						
OBS	197	4.66	34.144	27.06			14716	659	213	422	8	809	
STD	200	4.65	34.145	27.06	103.10	.230	14716						
STD	250	4.60	34.159	27.08	102.05	.282	14723						
STD	300	4.54	34.169	27.09	101.24	.333	14729						
OBS	301	4.54	34.169	27.09			14729	629	158	301	10	809	
STD	400	4.42	34.178	27.11	100.39	.433	14740						
OBS	405	4.41	34.178	27.11			14740	646	196	321	93	808	
STD	500	4.35	34.178	27.12	99.91	.533	14753						
STD	600	4.20	34.180	27.14	99.54	.633	14763						
OBS	613	4.17	34.180	27.14			14764	646	163	343	24	807	
STD	700	3.72	34.194	27.20	93.67	.730	14759						
STD	800	3.24	34.205	27.25	88.23	.821	14755						
OBS	820	3.15	34.214	27.27			14755	596	183	345	32	799	
OBS	859	3.08	34.248	27.30			14759	572	218	334	37	802	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	121	7 APR 1963	753	4804S	4036W	5673	448	80	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR		ST					
		310	05	12.0	0.0	320		4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	9.11	34.271	26.55	149.64	0.000	14862						
OBS	2	9.11	34.271	26.55			14862	662	101	164	12	815	
STD	10	9.08	34.247	26.54	151.15	.015	14862						
STD	20	9.05	34.227	26.53	152.30	.030	14862						
OBS	28	0.00	34.218	0.00			0	685	91	180		821	
STD	30	9.01	34.219	26.53	152.49	.045	14862						
STD	50	9.00	34.225	26.53	152.14	.076	14865						
OBS	54	8.93	34.236	26.55			14863	662	91	153	11	821	
STD	75	8.41	34.387	26.75	132.00	.111	14849						
OBS	80	8.28	34.426	26.80			14846	602	123	211	16	820	
OBS	97	8.03	34.495	26.89			14840	582	109	205		823	
STD	100	7.99	34.489	26.90	118.47	.143	14838						
STD	150	7.27	34.419	26.95	114.32	.201	14817						
OBS	161	7.10	34.372	26.93			14812	601		224	16	821	
STD	200	6.31	34.225	26.92	116.86	.259	14785						
OBS	213	0.00	34.178	0.00			0	634	103	289	23	805	
STD	250	5.32	34.174	27.01	109.13	.315	14752						
STD	300	4.34	34.168	27.11	99.16	.367	14720						
OBS	321	3.94	34.165	27.15			14707	646	144	310		807	
STD	400	3.21	34.153	27.21	89.60	.462	14688						
OBS	432	4.68	34.151	27.06			14756	643	161	290	30	805	1
STD	500	2.65	34.161	27.27	83.66	.548	14680						
STD	600	2.76	34.191	27.28	83.58	.632	14702						
OBS	649	2.55	34.212	27.32			14702	588	142	353	48	806	
STD	700	2.57	34.232	27.33	78.83	.713	14710						
STD	800	2.58	34.286	27.37	75.31	.790	14728						
OBS	869	2.63	34.334	27.41			14743	486	167	414		794	
STD	900	2.61	34.363	27.43	70.37	.863	14746						
OBS	944	2.57	34.402	27.47			14754	460	182	372	71	794	
STD	1000	2.56	34.428	27.49	65.74	.931	14762						
OBS	1088	2.58	34.471	27.52			14779	436	207	395	76	796	
OBS	1221	2.59	34.616	27.64			14803	426	151	364		791	
STD	1250	2.57	34.628	27.65	51.83	1.078	14806						
OBS	1500	2.37	34.648	27.68			14840	383	154	356	84	788	
STD	1500	2.37	34.648	27.68	49.72	1.205	14839						
STD	1750	2.30	34.675	27.71	47.90	1.327	14878						
OBS	1774	2.30	34.679	27.71			14883	417	132	458	101	792	
STD	2000	2.24	34.765	27.79	42.29	1.440	14918						
OBS	2058	2.07	34.784	27.81			14922	423	186	299		793	1
STD	2250	2.13	34.779	27.81	41.00	1.544	14955						
OBS	2336	2.09	34.768	27.80			14969	417	159	330	98	793	
STD	2500	1.97	34.769	27.81	41.28	1.647	14990						
STD	2750	1.75	34.771	27.83	38.79	1.747	15023						
OBS	2886	1.62	34.771	27.84			15042	476	151	378	111	792	
STD	3000	1.51	34.762	27.84	37.24	1.842	15055						
STD	3250	1.27	34.741	27.84	35.71	1.933	15087						
OBS	3434	1.09	34.723	27.84			15112	485	169	380		792	
STD	3500	1.02	34.718	27.84	34.78	2.021	15119						
STD	3750	.78	34.701	27.84	32.01	2.105	15151						
OBS	3980	.58	34.691	27.84			15183	504	187	367	129		
STD	4000	.57	34.690	27.84	29.87	2.182	15185						
STD	4500	.30	34.694	27.86	25.94	2.322	15260						
OBS	4503	.30	34.694	27.86			15263	520	166	394	142	791	
STD	5000	.03	0.000	0.00	0.00	0.000	0						
STD	5500	-.23	0.000	0.00	0.00	0.000	0						
OBS	5654	.24	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	122	10APR1963	903	5535S	2917W	3320	482	59	18				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			320	7	1.6	0.0	340	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.41	34.078	27.30	78.65	0.000	14544						
OBS	2	1.41	34.078	27.30			14544	767		185	24		
STD	10	1.42	34.089	27.31	77.87	.008	14546						
STD	20	1.42	34.097	27.31	77.22	.016	14548						
OBS	26	1.42	34.100	27.32			14549	764		267	26		
STD	30	1.42	34.099	27.31	77.13	.023	14549						
STD	50	1.40	34.092	27.31	77.52	.039	14552						
OBS	51	1.40	34.091	27.31			14552	748		242	30		
OBS	73	1.39	34.059	27.29			14554	762		265	27		
STD	75	1.39	34.063	27.29	79.93	.058	14555						
OBS	100	1.34	34.150	27.36			14558	697		285	44		
STD	100	1.34	34.150	27.36	72.73	.078	14558						
OBS	148	.35	34.369	27.60			14524	567		375	77		
STD	150	.36	34.377	27.61	49.36	.108	14525						
OBS	195	.84	34.529	27.70			14556	528		184	69		
STD	200	.88	34.539	27.70	40.32	.130	14559						
STD	250	1.16	34.608	27.74	37.11	.150	14580						
OBS	293	1.28	34.628	27.75			14593	455		425	76		
STD	300	1.30	34.632	27.75	36.50	.168	14595						
OBS	393	1.39	34.668	27.77			14614	450		280	82		
STD	400	1.38	34.671	27.78	34.74	.204	14616						
STD	500	1.23	34.705	27.81	30.69	.237	14626						
OBS	589	1.02	34.724	27.84			14631	468		354	88		
STD	600	1.00	34.723	27.84	28.29	.266	14632						
STD	700	.84	34.721	27.85	27.04	.294	14641						
OBS	791	.71	34.707	27.85			14650	479		265	99		
STD	800	.70	34.705	27.85	27.15	.321	14651						
STD	900	.60	34.682	27.84	28.18	.348	14663						
OBS	996	.53	34.661	27.82			14675	488		333	110		
STD	1000	.53	34.661	27.82	29.34	.377	14675						
STD	1250	.44	34.670	27.84	27.48	.448	14713						
OBS	1385	.40	34.687	27.85			14733	491		217	109		
STD	1500	.34	34.693	27.86	25.35	.514	14750						
OBS	1552	.31	34.694	27.86			14757	493		427	114		
OBS	1719	.26	34.681	27.86			14783	500		242	117		
STD	1750	.24	34.683	27.86	24.97	.577	14787						
OBS	1832	.19	34.691	27.87			14798	504		371	113		
OBS	1944	.13	34.710	27.89			14815	507		327	118		
STD	2000	.11	34.715	27.89	21.77	.636	14823						
OBS	2116	.08	34.718	27.89			14841	517		446	128		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	123	12 APR 1963	120	5402S	2739W	4976	482	47	17				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			240	6	0.0	0.0	250	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.04	34.050	27.23	85.17	0.000	14571						
OBS	2	2.04	34.050	27.23			14571	737		201		808	
STD	10	2.05	34.038	27.22	86.17	.009	14573						
STD	20	2.07	34.028	27.21	87.03	.017	14575						
OBS	27	2.07	34.024	27.21			14576	755		229			
STD	30	2.07	34.024	27.21	87.37	.026	14577						
OBS	50	2.06	34.027	27.21			14580	740		248		808	
STD	50	2.06	34.027	27.21	87.13	.043	14580						
OBS	75	2.04	34.026	27.21			14583	750		327		806	
STD	75	2.04	34.026	27.21	87.35	.065	14583						
OBS	100	.93	34.106	27.35			14539	612		411		803	
STD	100	.93	34.106	27.35	73.40	.085	14539						
OBS	147	.94	34.311	27.52			14550	548		380		793	
STD	150	.97	34.321	27.52	57.35	.118	14552						
OBS	196	1.44	34.442	27.59			14582	484		323		791	
STD	200	1.47	34.451	27.59	51.01	.145	14584						
STD	250	1.70	34.545	27.65	45.87	.169	14604						
OBS	289	1.77	34.591	27.68			14613	404		400		784	
STD	300	1.78	34.594	27.69	43.01	.192	14616						
OBS	384	1.74	34.594	27.69			14627	427		392		786	
STD	400	1.74	34.604	27.70	42.61	.234	14631						
STD	500	1.73	34.668	27.75	37.51	.274	14647						
OBS	572	1.71	34.715	27.79			14658	308		402		788	4
STD	600	1.68	34.715	27.79	34.42	.310	14662						
STD	700	1.53	34.705	27.79	33.99	.345	14672						
OBS	759	1.43	34.691	27.79			14676	457		390		788	
STD	800	1.35	34.690	27.79	33.60	.378	14680						
STD	900	1.20	34.693	27.81	32.32	.411	14689						
OBS	950	1.15	34.697	27.81			14695	464		351		789	
OBS	999	1.17	34.701	27.82			14704	466		400		788	
STD	1000	1.17	34.701	27.82	31.88	.443	14705						
OBS	1250	0.00	34.696	0.00			0	480		382		788	
STD	1250	.99	34.696	27.82	30.60	.522	14738						
STD	1500	.69	34.709	27.85	27.53	.594	14766						
OBS	1535	.64	34.710	27.86			14678	490		419		787	
STD	1750	.43	34.695	27.86	25.85	.661	14796						
OBS	1767	0.00	34.694	0.00			0	497		349		786	
STD	2000	.18	34.689	27.87	24.45	.724	14826						
OBS	2036	.38	34.689	27.85			14700	499		350		789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	124	14APR1963	112	5600S	2743W	978	482	67	10				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			250	3	0.0	0.0	250	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.89	34.036	27.30	78.59	0.000	14520						
OBS	2	.89	34.036	27.30			14520	767				813	
STD	10	.91	34.034	27.30	78.86	.008	14523						
OBS	20	.93	34.034	27.30			14525	768				813	
STD	20	.93	34.034	27.30	78.94	.016	14525						
STD	30	.93	34.038	27.30	78.58	.024	14527						
OBS	45	.89	34.045	27.31			14527	770				815	
STD	50	.85	34.061	27.32	76.35	.039	14527						
STD	75	.64	34.158	27.41	68.01	.057	14523						
OBS	97	.46	34.265	27.51			14519	654				810	
STD	100	.46	34.277	27.52	57.59	.073	14520						
OBS	149	.50	34.453	27.66			14532	550				801	
STD	150	.50	34.455	27.66	44.26	.098	14533						
STD	200	.64	34.554	27.73	37.64	.119	14548						
STD	250	.78	34.610	27.77	34.37	.137	14563						
OBS	255	.79	34.613	27.77			14564	488				793	
STD	300	.84	34.656	27.80	31.48	.153	14575						
OBS	359	.87	34.693	27.83			14586	473				790	
STD	400	.86	34.692	27.83	29.27	.184	14593						
STD	500	.87	34.691	27.83	28.98	.213	14609						
OBS	570	.84	34.690	27.83			14619	478				796	
STD	600	.83	34.691	27.83	29.33	.242	14624						
STD	700	.77	34.696	27.84	28.35	.271	14637						
OBS	778	.71	34.701	27.84			14647	482				798	
STD	800	.70	34.702	27.85	27.33	.299	14651						
STD	900	.63	34.707	27.85	26.53	.326	14664						
OBS	991	.55	34.709	27.86			14675	484				796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	125	15APR1963	433	5442S	2558W	4895	482	45	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	06	.2	0.0	240	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.84	34.137	27.32	77.12	0.000	14564						
OBS	2	1.84	34.137	27.32			14564	752		217	28	820	
STD	10	1.85	34.098	27.28	80.20	.008	14565						
STD	20	1.86	34.062	27.25	82.99	.016	14567						
OBS	26	1.87	34.048	27.24			14568	753		275	23	820	
STD	30	1.87	34.044	27.24	84.40	.024	14569						
OBS	49	1.88	34.044	27.24			14572	753		271	22	812	
STD	50	1.88	34.044	27.24	84.50	.041	14572						
OBS	75	1.88	34.043	27.24			14576	755		276	23	823	
STD	75	1.88	34.043	27.24	84.87	.062	14576						
OBS	100	1.76	34.019	27.23			14575	750		160	25	820	
STD	100	1.76	34.019	27.23	85.60	.084	14575						
OBS	147	1.27	34.250	27.45			14564	590		306	46	804	
STD	150	1.26	34.260	27.46	63.87	.121	14564						
OBS	197	1.22	34.385	27.56			14572	499		356	58	802	
STD	200	1.23	34.391	27.56	53.88	.151	14572						
STD	250	1.40	34.473	27.62	49.08	.176	14589						
OBS	295	1.60	34.520	27.64			14606	426		425	63	800	
STD	300	1.61	34.525	27.64	46.97	.200	14608						
OBS	394	1.74	34.589	27.68			14629	433		379	68	799	
STD	400	1.74	34.593	27.69	43.42	.246	14630						
STD	500	1.74	34.663	27.74	37.96	.286	14648						
OBS	596	1.74	0.000	0.00			0	429		355	74	802	
STD	600	1.74	34.733	27.80	33.66	.322	14665						
STD	700	1.73	34.802	27.86	28.44	.353	14682						
OBS	799	1.72	34.687	27.76			14697	451		372	73	802	
STD	800	1.71	0.000	0.00	0.00	0.000	0						
STD	900	1.64	0.000	0.00	0.00	0.000	0						
STD	1000	1.55	0.000	0.00	0.00	0.000	0						
OBS	1003	1.55	0.000	0.00			0	463		278	78	804	
OBS	1206	1.35	0.000	0.00			0	469		388	87	802	
STD	1250	1.28	0.000	0.00	0.00	0.000	0						
OBS	1454	.98	0.000	0.00			0	475		363	89	801	
STD	1500	.93	0.000	0.00	0.00	0.000	0						
OBS	1704	.74	0.000	0.00			0	487		382	96	800	
STD	1750	.69	0.000	0.00	0.00	0.000	0						
OBS	1955	.52	0.000	0.00			0	497		387	99	800	
STD	2000	.48	0.000	0.00	0.00	0.000	0						
OBS	2215	.36	0.000	0.00			0	504		392	99	799	
STD	2250	.34	0.000	0.00	0.00	0.000	0						
OBS	2467	.28	0.000	0.00			0	515		376	86	800	
STD	2500	.26	0.000	0.00	0.00	0.000	0						
OBS	2727	.18	0.000	0.00			0	521		406	96	799	
STD	2750	.17	0.000	0.00	0.00	0.000	0						
OBS	2989	.10	0.000	0.00			0	527		386	97	798	
STD	3000	.09	0.000	0.00	0.00	0.000	0						
STD	3250	.02	0.000	0.00	0.00	0.000	0						
STD	3500	-.05	0.000	0.00	0.00	0.000	0						
OBS	3523	-.06	0.000	0.00			0	544		397	101	799	
STD	3750	-.12	0.000	0.00	0.00	0.000	0						
STD	4000	-.20	0.000	0.00	0.00	0.000	0						
OBS	4054	-.26	0.000	0.00			0	573		401	99	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	126	16 APR 1963	1810	5512S	2424W	4022	482	54	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			245	06	- .3	0.0	230	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.65	33.925	27.16	91.87	0.000	14552						
OBS	2	1.65	33.925	27.16			14553	768	127	213	27	824	
STD	10	1.66	33.372	26.72	133.91	.011	14547						
STD	20	1.67	33.058	26.46	157.76	.026	14545						
OBS	23	1.67	33.046	26.45			14545	764	151	234	27	818	
STD	30	1.67	33.307	26.66	138.91	.041	14550						
OBS	43	1.67	33.929	27.16			14560	760	135	235	27	817	
STD	50	1.67	33.977	27.20	88.07	.063	14562						
OBS	67	1.68	33.894	27.13			14564	759	145	223	29	817	
STD	75	1.70	33.895	27.13	94.82	.086	14566						
OBS	90	1.67	33.915	27.15			14568	758	156	271	57	819	
STD	100	1.39	33.955	27.20	87.85	.109	14557						
OBS	132	.52	34.119	27.39			14526	660	149	301	70	804	
STD	150	.68	34.205	27.45	64.32	.147	14537						
OBS	177	1.17	34.320	27.51			14565	512	192	320	72	795	
STD	200	1.36	34.383	27.55	55.46	.177	14578						
STD	250	1.63	34.476	27.60	50.57	.204	14600						
OBS	266	1.67	34.493	27.61			14604	440	215	381	72	792	
STD	300	1.77	34.538	27.64	47.23	.228	14615						
OBS	358	1.87	34.593	27.68			14629	418	175	437	75	791	
STD	400	1.88	34.608	27.69	43.46	.273	14637						
STD	500	1.82	34.625	27.71	41.47	.316	14651						
OBS	547	1.76	34.625	27.71			14656	435	162	352	92	790	
STD	600	1.73	34.655	27.74	39.46	.356	14664						
STD	700	1.68	34.705	27.78	35.30	.394	14678						
OBS	746	1.65	34.725	27.80			14685	451	163	319	102	791	
STD	800	1.60	34.723	27.80	33.39	.428	14691						
STD	900	1.50	34.708	27.80	33.90	.462	14703						
OBS	944	1.45	34.697	27.79			14708	457	195	373	107	797	
STD	1000	1.38	34.688	27.79	34.80	.496	14714						
OBS	1215	1.13	34.669	27.79			14738	479	210	352	117	798	
STD	1250	1.09	34.672	27.80	33.31	.581	14742						
OBS	1395	.94	34.687	27.82			14760	478	223	406	116	798	
STD	1500	.83	34.684	27.82	30.73	.661	14772						
OBS	1648	.70	34.674	27.82			14791	486	153	289	124	797	
STD	1750	.63	34.670	27.83	29.73	.737	14804						
OBS	1923	.52	34.664	27.83			14828	493	171	315	126	795	
STD	2000	.47	34.662	27.83	29.47	.811	14839						
OBS	2192	.36	34.656	27.83			14866	502	132	357	132	793	
STD	2250	.33	0.000	0.00	0.00	0.000	0						
OBS	2467	.26	34.612	27.80			14908	510	119	387	128	796	2
STD	2500	.25	0.000	0.00	0.00	0.000	0						
OBS	2746	.23	34.628	27.81			14954	520	167	354	134	797	2
STD	2750	.22	0.000	0.00	0.00	0.000	0						
STD	3000	.05	0.900	0.00	0.00	0.000	0						
OBS	3021	.04	34.646	27.84			14993	526	171	370	117	795	2
STD	3250	-.03	0.000	0.00	0.00	0.000	0						
OBS	3292	-.05	34.616	27.82			15035	539	167	331	127	794	2
STD	3500	-.15	0.000	0.00	0.00	0.000	0						
OBS	3565	-.19	34.648	27.85			15076	554	199	368	134	793	2
STD	3750	0.00	0.000	0.00	0.00	0.000	0						
OBS	3825	0.00	34.639	0.00			0	564	121	349	125	794	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	127	18APR1963	1415	5659S	2743W	3105	482	77	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			295	05	1.8	0.0	305	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.62	33.979	27.27	81.38	0.000	14507						
OBS	3	.62	33.979	27.27			14508	774	115	294	45	817	
STD	10	.62	33.989	27.28	80.55	.008	14509						
STD	20	.61	34.003	27.29	79.50	.016	14510						
OBS	30	.61	34.014	27.30			14512	781	113	272	45	817	
STD	30	.61	34.014	27.30	78.58	.024	14512						
STD	50	.60	34.029	27.31	77.38	.040	14515						
OBS	57	.59	34.035	27.32			14516	750	104	241	45	818	
STD	75	.53	34.062	27.34	74.57	.059	14516						
OBS	86	.41	34.094	27.37			14513	742	118	287	114	815	
STD	100	.02	34.173	27.46	63.14	.076	14499						
OBS	112	-.29	34.247	27.53			14487	657	87	361	68	807	
STD	150	.10	34.389	27.63	47.06	.103	14513						
OBS	163	.40	34.427	27.64			14530	535	156	294	74	807	
STD	200	.86	34.565	27.73	38.19	.125	14558						
OBS	215	1.01	34.614	27.76			14568	484	174	407	80	804	
STD	250	1.16	34.663	27.79	32.95	.142	14581						
STD	300	1.15	34.669	27.79	32.64	.159	14589						
OBS	321	1.19	34.683	27.80			14594	465	160	350	84	803	
STD	400	1.15	34.691	27.81	31.44	.191	14606						
OBS	425	1.12	34.690	27.81			14608	463	167	364	76	804	
STD	500	1.04	34.694	27.82	30.09	.222	14617						
STD	600	.93	34.697	27.83	29.72	.252	14629						
OBS	636	.89	34.698	27.83			14633	397	134	331	94	803	4
STD	700	.82	34.701	27.84	28.43	.281	14640						
STD	800	.71	34.699	27.84	27.69	.309	14651						
OBS	844	.67	34.634	27.79			14656	462	165	331	97	803	2
STD	900	.63	34.700	27.85	27.05	.336	14664						
STD	1000	.56	34.700	27.85	26.69	.363	14677						
OBS	1057	.53	34.675	27.83			14685	488	173	407	97	803	2
OBS	1121	.50	34.701	27.86			14695	485	146	332	103	801	
STD	1250	.43	34.693	27.86	25.78	.429	14713						
OBS	1275	.42	34.691	27.85			14716	489	143	355	93	800	
OBS	1427	.33	34.675	27.85			14737	499	101	317	102	802	
STD	1500	.29	34.673	27.85	26.47	.494	14748						
OBS	1531	.28	34.672	27.85			14752	446	171	415	108	802	4
STD	1750	.19	34.666	27.85	25.74	.559	14785						
OBS	1785	.18	34.708	27.88			14791	486	143	336	105	803	2
STD	2000	.10	34.658	27.85	25.82	.624	14822						
OBS	2039	.08	34.670	27.86			14828	521	119	406	104	801	
STD	2250	0.00	0.000	0.00	0.00	0.000	0						
OBS	2291	-.02	0.000	0.00			0						
STD	2500	-.06	0.000	0.00	0.00	0.000	0						
OBS	2547	-.07	34.594	27.80			14907	530	180	396	101	801	2
STD	2750	-.09	0.000	0.00	0.00	0.000	0						
OBS	2803	-.10	0.000	0.00			0						
STD	3000	-.09	0.000	0.00	0.00	0.000	0						
OBS	3040	-.09	34.614	27.82			14992	540	167	381	111	799	2
OBS	3136	-.10	34.630	27.83			15008	543	120	342	108	802	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	128	20APR1963	1319	5704S	2259W	4730	482	73	16				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			140	3	2.0	0.0	20	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.56	34.052	27.27	81.62	0.000	14550						
OBS	2	1.56	34.052	27.27			14550	770		283	17	815	
STD	10	1.57	34.022	27.24	83.97	.008	14552						
STD	20	1.58	33.997	27.22	85.93	.017	14553						
OBS	23	1.58	33.992	27.22			14554	765		275	31	813	
STD	30	1.59	33.994	27.22	86.24	.025	14555						
OBS	45	1.60	33.997	27.22			14558	766		229	19	814	
STD	50	1.60	34.010	27.23	85.08	.043	14560						
OBS	69	1.59	34.056	27.27			14562	763		234	25	814	
STD	75	1.58	34.051	27.27	82.14	.063	14563						
OBS	92	1.55	34.041	27.26			14564	753		194	40	816	
STD	100	1.51	34.078	27.29	79.34	.084	14565						
OBS	138	1.40	34.299	27.48			14568	552		416	43	800	
STD	150	1.46	34.330	27.50	60.01	.118	14574						
OBS	184	1.69	34.383	27.52			14590	487		329	53	795	
STD	200	1.71	34.406	27.54	56.24	.148	14594						
STD	250	1.73	34.469	27.59	51.82	.175	14604						
OBS	280	1.70	34.500	27.62			14608	448		400	86	794	
STD	300	1.75	34.522	27.63	48.25	.200	14614						
OBS	377	1.97	34.596	27.67			14637	416		391	72	794	
STD	400	1.98	34.609	27.68	44.19	.246	14641						
STD	500	1.94	34.652	27.72	40.51	.288	14656						
OBS	575	1.84	34.668	27.74			14664	425		334	79	798	
STD	600	1.83	34.674	27.75	38.81	.328	14668						
STD	700	1.78	34.696	27.77	36.83	.366	14682						
STD	800	1.72	34.713	27.78	35.26	.402	14696						
STD	900	1.66	34.725	27.80	34.10	.436	14710						
STD	1000	1.58	34.733	27.81	33.35	.470	14724						
OBS	1171	1.45	34.735	27.82			14745	465		317	89	798	
STD	1250	1.36	34.735	27.83	31.21	.551	14755						
OBS	1437	1.13	34.731	27.84			14775	478		355	113	798	
STD	1500	1.06	34.730	27.85	29.63	.627	14783						
OBS	1704	.86	34.725	27.85			14808	488		290	101	799	
STD	1750	.81	34.723	27.86	27.75	.699	14813						
OBS	1966	.62	34.717	27.86			14841	494		391	109	799	
STD	2000	.60	34.720	27.87	26.55	.766	14845						
OBS	2235	.46	34.731	27.88			14879	501		405	128	798	
STD	2250	.45	34.730	27.88	24.32	.830	14881						
OBS	2494	.35	34.693	27.86			14917	509		405	117	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	129	25 APR 1963	2125	5509S	2825W	7029	482	58	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		125	6	2.3	0.0	135	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.48	34.043	27.27	81.77	0.000	14547						
OBS	2	1.48	34.043	27.27			14547	706		167		801	
STD	10	1.49	34.031	27.26	82.73	.008	14548						
STD	20	1.50	34.022	27.25	83.50	.017	14550						
OBS	26	1.50	34.019	27.25			14551	781		245		816	
STD	30	1.50	34.020	27.25	83.65	.025	14552						
OBS	49	1.48	34.028	27.25			14554	759		173		818	
STD	50	1.48	34.028	27.25	82.87	.042	14554						
OBS	72	1.37	34.034	27.27			14553	774		256		819	
STD	75	1.36	34.034	27.27	81.88	.062	14553						
OBS	94	1.18	34.050	27.29			14548	764		220		816	
STD	100	.99	34.082	27.33	75.60	.082	14541						
OBS	142	-.28	34.337	27.61			14494	645		319		808	
STD	150	-.28	34.360	27.62	47.30	.113	14496						
OBS	191	.11	34.432	27.66			14521	564		273		812	
STD	200	.17	34.448	27.67	42.94	.135	14526						
STD	250	.50	34.526	27.72	38.97	.156	14550						
OBS	286	.71	34.573	27.74			14565	502		350		800	
STD	300	.79	34.590	27.75	36.14	.174	14572						
OBS	382	1.19	34.664	27.78			14604	462		278		800	
STD	400	1.26	34.672	27.78	33.78	.209	14610						
STD	500	1.47	34.693	27.79	33.51	.243	14636						
OBS	576	1.39	34.684	27.79			14645	472		351		799	
STD	600	1.26	34.680	27.79	33.59	.277	14643						
OBS	675	.86	34.673	27.81			14637	494		311		798	
STD	700	.81	34.682	27.82	29.77	.308	14639						
OBS	775	.75	34.704	27.84			14649	480		330		800	
STD	800	.72	34.697	27.84	27.89	.337	14652						
OBS	849	.67	34.681	27.83			14657	485		310		798	
STD	900	.61	34.679	27.83	28.53	.365	14663						
OBS	967	.55	34.682	27.84			14671	491		387		799	
STD	1000	.53	34.682	27.84	27.77	.393	14676						
OBS	1190	.45	34.683	27.85			14703	489		265		800	
STD	1250	.43	34.681	27.85	26.60	.461	14712						
STD	1500	.34	34.673	27.84	26.85	.528	14750						
OBS	1557	.32	34.671	27.84			14758	449		356		798	4
STD	1750	.23	34.669	27.85	25.87	.594	14786						
OBS	1943	.14	34.667	27.85			14814	516		330		798	
STD	2000	.12	34.665	27.85	25.53	.658	14823						
STD	2250	.03	34.660	27.85	24.86	.721	14861						
OBS	2282	.02	34.659	27.85			14866	514		356		798	
STD	2500	-.03	34.660	27.85	24.73	.783	14901						
OBS	2646	-.07	34.661	27.86			14924	542		340		796	
STD	2750	-.11	34.658	27.86	23.36	.843	14939						
STD	3000	-.21	34.651	27.86	22.88	.901	14978						
OBS	3004	-.21	34.651	27.86			14978	553		372		797	
STD	3250	-.27	34.648	27.86	21.80	.957	15018						
OBS	3332	-.28	34.647	27.86			15031						
STD	3500	-.30	34.642	27.85	21.96	1.012	15059						
STD	3750	-.33	34.635	27.85	20.99	1.065	15101						
OBS	3756	-.33	34.635	27.85			15102	572		358		797	
STD	4000	-.37	34.635	27.85	20.11	1.117	15143						
OBS	4165	-.40	34.638	27.85			15171	583		291		795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	130	28APR1963	905	5511S	2620W	7798	482	56	16				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			130	6	1.2	0.0	150	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.06	34.024	27.21	87.29	0.000	14572						
OBS	2	2.06	34.024	27.21			14572	766	144	148	24	812	
STD	10	2.07	34.012	27.20	88.26	.009	14574						
STD	20	2.07	34.011	27.20	88.37	.018	14576						
OBS	29	2.08	34.005	27.19			14577	756	147	249	24	821	
STD	30	2.08	34.006	27.19	88.79	.026	14577						
STD	50	1.96	34.034	27.22	85.81	.044	14576						
OBS	51	1.95	34.036	27.23			14575	760	123	142	26	820	
STD	75	1.82	34.053	27.25	83.69	.065	14574						
OBS	78	1.80	34.055	27.25			14573	756	190	155	29	819	
OBS	98	1.49	34.077	27.29			14563	756	172	186	39	818	
STD	100	1.42	34.083	27.30	78.40	.085	14561						
OBS	146	.17	34.260	27.52			14514	650	171	210	79	809	
STD	150	.19	34.277	27.53	56.04	.119	14516						
OBS	193	.74	34.440	27.63			14550	535	188	224	84	801	
STD	200	.80	34.458	27.64	45.92	.144	14554						
STD	250	1.11	34.557	27.70	40.65	.166	14577						
OBS	289	1.20	34.596	27.73			14588	474	210	203	93	799	
STD	300	1.19	34.604	27.74	37.85	.186	14590						
OBS	391	.99	34.637	27.78			14596	481	165	174	99	800	
STD	400	.99	34.640	27.78	34.10	.222	14598						
STD	500	1.00	34.669	27.80	31.59	.255	14615						
OBS	577	1.05	34.683	27.81			14630	474	193	248	114	800	
STD	600	1.04	34.685	27.81	31.51	.286	14633						
STD	700	1.04	34.688	27.81	31.17	.317	14650						
OBS	771	0.00	34.687	0.00			0	470	174	231	115	800	
STD	800	1.01	34.688	27.82	30.93	.348	14665						
STD	900	.96	34.692	27.82	30.38	.379	14679						
OBS	958	.92	34.694	27.83			14670	481	226	360	113	801	
STD	1000	.87	34.693	27.83	29.90	.409	14691						
STD	1250	.58	34.682	27.84	27.93	.482	14719						
OBS	1335	.48	34.677	27.84			14712	492	165	247	122	799	
STD	1500	.38	34.679	27.85	26.77	.550	14752						
OBS	1611	.33	34.680	27.85			14751	503	153	203	136	797	
STD	1750	.27	34.672	27.85	26.06	.616	14788						
OBS	1892	.22	34.664	27.84			14793	510	202	192	131	798	
STD	2000	.18	34.664	27.85	26.27	.681	14826						
OBS	2173	.11	34.670	27.85			14835	528	215	248	126	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	131	30APR1963	1536	5554S	2456W	6027	482	54	25				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		220	4	-0.6	0.0	200	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.14	34.062	27.23	85.00	0.000	14576						
OBS	2	2.14	34.062	27.23			14576	758	145		20	809	
STD	10	2.13	34.060	27.23	85.13	.009	14577						
STD	20	2.12	34.055	27.23	85.41	.017	14578						
OBS	24	2.11	34.052	27.23			14578	761	139		17	818	
STD	30	2.10	34.046	27.22	85.99	.026	14579						
OBS	46	2.07	34.032	27.21			14580	759	138		21	819	
STD	50	2.06	34.032	27.21	86.79	.043	14580						
OBS	72	1.96	34.041	27.23			14579	755	141		24	818	
STD	75	1.93	34.043	27.23	85.30	.064	14579						
OBS	97	1.66	34.067	27.27			14570	759	130		31	808	
STD	100	1.58	34.074	27.28	80.12	.085	14568						
OBS	143	.53	34.215	27.47			14529	657	150		57	808	
STD	150	.48	34.241	27.49	60.46	.120	14529						
OBS	191	.48	34.384	27.60			14537	577	181		76	798	
STD	200	.48	34.410	27.62	47.62	.147	14539						
STD	250	.56	34.526	27.71	39.34	.169	14552						
OBS	286	.69	34.583	27.75			14565	479	198		78	796	
STD	300	.79	34.598	27.76	35.48	.188	14572						
OBS	383	1.36	34.652	27.76			14611	458	181		83	798	
STD	400	1.40	34.661	27.77	35.57	.223	14616						
STD	500	1.47	34.704	27.80	32.61	.257	14636						
OBS	575	1.35	34.722	27.82			14643	458	196		96	796	
STD	600	1.34	34.724	27.82	30.92	.289	14647						
STD	700	1.28	34.727	27.83	30.21	.320	14661						
OBS	767	1.23	34.724	27.83			14669	469	183		101	796	
STD	800	1.20	34.725	27.83	29.71	.350	14673						
STD	900	1.09	34.728	27.84	28.81	.379	14685						
OBS	961	1.02	34.729	27.85			14692	474	183		108	797	
STD	1000	.98	34.728	27.85	28.20	.407	14697						
OBS	1206	.79	34.718	27.85			14722	485	190		116	794	
STD	1250	.74	34.714	27.85	26.98	.476	14727						
OBS	1454	.55	34.699	27.85			14752	496	190		111	795	
STD	1500	.53	34.700	27.85	26.66	.543	14759						
OBS	1605	.50	34.704	27.86			14775	495	196		121	796	
STD	1750	.40	34.705	27.87	24.87	.608	14795						
OBS	1862	.32	34.705	27.87			14809	500	214		123	795	
STD	2000	.27	34.709	27.88	23.85	.669	14830						
OBS	2149	.22	34.756	27.92			14854	513	199		120	793	2
STD	2250	.18	34.713	27.89	22.49	.727	14868						
OBS	2417	.10	34.714	27.89			14893	522	212		126	793	
STD	2500	.06	34.708	27.89	22.33	.783	14906						
STD	2750	-.04	34.689	27.88	21.96	.838	14943						
OBS	2978	-.12	34.671	27.87			14978	537	194		123		
STD	3000	-.13	34.670	27.87	22.51	.894	14982						
STD	3250	-.18	34.665	27.87	21.64	.949	15022						
OBS	3490	-.23	34.664	27.87			15061	561	215		121	791	
STD	3500	-.23	34.664	27.87	21.28	1.002	15063						
STD	3750	-.29	34.666	27.87	19.33	1.053	15103						
STD	4000	-.34	34.668	27.88	18.25	1.100	15145						
OBS	4018	-.34	34.668	27.88			15148	576	205		117	792	
STD	4500	-.34	34.665	27.87	18.03	1.191	15232						
OBS	4558	-.34	34.664	27.87			15243	584	219		117	792	
STD	5000	-.34	34.664	27.87	17.69	1.280	15321						
OBS	5026	-.34	34.664	27.87			15326	589	195		115	790	
STD	5500	-.34	34.690	27.89	15.20	1.362	15410						
OBS	5603	-.34	34.695	27.90			15430	600	220		115	788	
STD	6000	-.28	34.684	27.89	16.96	1.443	15503						
OBS	6047	-.27	34.681	27.88			15513	594	200		114	788	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	132	1MAY1963	2312	5657S	2425W	7846	482	64	29				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			185	9	.3	0.0	205	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.71	34.073	27.27	81.06	0.000	14557						
OBS	2	1.71	34.073	27.27			14557	756	160		36		
STD	10	1.72	34.055	27.26	82.46	.008	14559						
OBS	16	1.72	34.044	27.25			14559	749	123		28	813	
STD	20	1.72	34.037	27.24	83.84	.016	14560						
OBS	28	1.72	34.027	27.24			14561	753	123		26	814	
STD	30	1.73	34.026	27.23	84.79	.025	14562						
OBS	45	1.77	34.026	27.23			14566	759	138		41	814	
STD	50	1.78	34.031	27.24	84.71	.042	14568						
OBS	60	1.75	34.046	27.25			14568	755	108		28	815	
STD	75	1.52	34.062	27.28	80.88	.063	14561						
OBS	96	1.02	34.104	27.35			14542	715	199		37	812	
STD	100	.89	34.123	27.37	71.86	.082	14538						
OBS	135	-.07	34.307	27.57			14502	631	184		88	803	
STD	150	-.07	34.354	27.61	48.76	.112	14505						
STD	200	.35	34.460	27.67	42.99	.135	14534						
OBS	220	.70	34.480	27.67			14553	518	209		76	809	
STD	250	.83	34.514	27.69	41.96	.156	14565						
STD	300	.96	34.556	27.71	39.83	.176	14579						
OBS	315	.98	34.565	27.72			14582	483	142		92	808	
STD	400	1.03	34.617	27.76	36.09	.214	14599						
OBS	478	.99	34.651	27.79			14610	468	199		107	801	
STD	500	.99	34.658	27.79	32.37	.249	14614						
STD	600	.96	34.683	27.81	31.01	.280	14630						
OBS	639	.95	34.691	27.82			14635	473	205		107	798	
STD	700	.92	34.711	27.84	28.44	.310	14644						
STD	800	.85	34.736	27.86	26.02	.337	14658						
OBS	818	.84	34.740	27.87			14660	478	172		114	798	
STD	900	.78	34.733	27.87	25.78	.363	14671						
STD	1000	.70	34.718	27.86	26.55	.389	14684						
OBS	1092	.63	34.697	27.85			14695	486			118	798	
STD	1250	.52	34.688	27.85	26.84	.456	14717						
OBS	1340	.46	0.000	0.00			0	484	151		124	795	
STD	1500	.39	34.684	27.85	26.53	.523	14752						
OBS	1564	.37	34.684	27.85			14702	486	154		121	797	
STD	1750	.36	34.678	27.85	26.52	.589	14792						
OBS	1816	.36	34.676	27.85			14743	491	142		123	795	
STD	2000	.29	34.679	27.85	26.28	.655	14831						
OBS	2068	.26	34.681	27.86			14781	504	168		130	795	
STD	2250	.20	34.679	27.86	25.31	.720	14869						
OBS	2385	.16	34.675	27.86			14829	514	185		125	795	
STD	2500	.12	34.671	27.85	25.70	.783	14908						
STD	2750	.05	34.663	27.85	24.90	.847	14947						
OBS	2858	.02	34.660	27.85			14903	529	166		141	792	
STD	3000	-.01	34.661	27.85	24.53	.908	14987						
STD	3250	-.08	34.664	27.86	23.08	.968	15027						
OBS	3298	-.09	34.638	27.84			14972	536	148		138	791	2
STD	3500	-.17	34.666	27.87	21.94	1.024	15066						
STD	3750	-.26	34.669	27.87	19.52	1.076	15105						
OBS	3875	-.30	34.651	27.86			15063	563	151		128	794	2
STD	4000	-.31	34.672	27.88	18.28	1.123	15146						
OBS	4395	-.32	34.644	27.86			15152	574	178		138	794	2
STD	4500	-.32	34.679	27.88	17.32	1.212	15233						
OBS	4855	-.32	34.652	27.86			15233	582	139		126	791	2
STD	5000	-.31	34.687	27.89	16.46	1.297	15322						
OBS	5427	-.29	34.695	27.90			15337	587			129	790	
STD	5500	-.28	34.694	27.89	15.99	1.378	15413						
OBS	5949	-.25	34.651	27.86			15432	578			136	789	2
STD	6000	-.25	34.683	27.88	17.55	1.462	15504						
OBS	6086	-.25	34.681	27.88			15457	509	179		138	791	
STD	6500	-.20	34.665	27.87	18.65	1.552	15596						
OBS	6574	-.19	34.663	27.86			15547	520	174		134	789	
STD	7000	-.13	34.668	27.87	19.45	1.647	15690						
OBS	7082	-.12	34.671	27.87			15643	538	187		125	787	
OBS	7390	.09	34.650	27.84			15708	543	151		128	786	3

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	133	3MAY1963	1447	5814S	2552W	2313	482	85	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		255	3	-1.0	0.0	230	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.51	33.955	27.26	82.61	0.000	14502						
OBS	2	.51	33.955	27.26			14502	801	113	274	56	812	
STD	10	.05	33.931	27.26	82.04	.008	14482						
STD	20	-.37	33.913	27.27	81.52	.016	14464						
OBS	24	-.48	33.909	27.27			14459	805	134	296	56	816	
STD	30	-.48	33.914	27.27	80.92	.025	14461						
STD	50	-.49	33.937	27.29	78.94	.041	14464						
OBS	51	-.48	33.939	27.29			14464	804	125	289	54	816	
OBS	75	-.61	33.927	27.29			14462	806	147	291	56	816	
STD	75	-.61	33.927	27.29	79.36	.060	14462						
OBS	100	-.93	34.263	27.57			14456	670	172	341	69	807	
STD	100	-.93	34.263	27.57	52.04	.077	14456						
STD	150	-.66	34.454	27.72	38.36	.099	14479						
OBS	151	-.65	34.454	27.72			14480	586	176	380	91	803	
STD	200	-.06	34.568	27.78	32.48	.117	14517						
OBS	201	-.05	34.570	27.78			14517	519	160	404	80	797	
STD	250	.16	34.638	27.83	28.43	.132	14536						
STD	300	.19	34.672	27.85	26.09	.146	14546						
OBS	304	.20	34.673	27.85			14547	486	163	435	93	802	
OBS	394	.30	34.664	27.84			14566	482	109	350	102	796	
STD	400	.30	34.665	27.84	27.58	.173	14567						
STD	500	.36	34.680	27.85	26.19	.200	14586						
STD	600	.36	34.697	27.86	25.46	.225	14603						
OBS	614	.36	34.700	27.86			14605	478	122	445	108	795	
STD	700	.33	34.695	27.86	25.19	.251	14618						
OBS	784	.29	34.686	27.86			14629	482	179	427	128	796	
STD	800	.28	34.685	27.86	25.48	.276	14632						
STD	900	.24	34.678	27.85	25.64	.302	14646						
OBS	975	.21	34.676	27.85			14657	495	231	428	130	796	
STD	1000	.21	34.679	27.86	25.47	.327	14661						
OBS	1130	.15	34.686	27.87			14680	495	210	433	125	800	
OBS	1206	.05	34.674	27.86			14688	504	226	383	131	797	
STD	1250	.05	34.670	27.86	24.28	.389	14695						
OBS	1320	.08	34.733	27.91			14709	511	260	400	124	796	2
OBS	1439	.04	34.668	27.86			14726	516	275	421	128	795	
STD	1500	.01	34.674	27.86	23.88	.450	14735						
OBS	1557	-.01	34.679	27.87			14743	520	240	425	114	799	
OBS	1681	-.06	34.682	27.87			14762	523	246	422	123	798	
STD	1750	-.08	34.681	27.87	22.00	.507	14772						
OBS	1807	-.10	34.679	27.87			14781	524	240	407	130	796	
STD	2000	-.12	34.668	27.87	22.94	.563	14812						
OBS	2061	-.13	34.668	27.87			14822	533	242	403	126	793	
OBS	2178	-.17	34.685	27.88			14840	533	237	430	127	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	134	5 MAY 1963	47	5829 J	2223 W	4104	482	82	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			0	2	.6	0.0	320	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.80	34.013	27.29	79.81	0.000	14516						
OBS	2	.80	34.013	27.29			14516	756	156	268	29		
STD	10	.81	34.007	27.28	80.29	.008	14518						
STD	20	.82	34.002	27.28	80.72	.016	14519						
OBS	29	.82	33.999	27.27			14521		156	291	36	810	
STD	30	.82	33.999	27.27	80.92	.024	14521						
STD	50	.82	34.000	27.28	80.81	.040	14524						
OBS	55	.81	34.001	27.28			14524	756	169	252	34	818	
STD	75	.76	34.008	27.28	80.09	.060	14526						
OBS	80	.74	34.009	27.29			14525	759	152	289	39	818	
STD	100	.64	34.000	27.29	79.67	.080	14524						
OBS	105	.62	34.003	27.29			14524	757	169	283	37	818	
STD	150	.68	34.296	27.52	57.45	.115	14539						
OBS	160	.72	34.372	27.58			14543	548	263	423	70	803	
STD	200	.78	34.447	27.64	46.59	.141	14553						
OBS	215	.81	34.456	27.64			14557	511	197	403	87	797	
STD	250	1.00	34.512	27.67	43.25	.163	14572						
STD	300	1.28	34.581	27.71	40.17	.184	14593						
OBS	318	1.38	34.603	27.72			14601	453	222	371	88	796	
STD	400	1.52	34.647	27.75	37.60	.223	14622						
OBS	427	1.53	34.654	27.75			14626	442	233	386	95	797	
STD	500	1.50	34.673	27.77	35.20	.259	14637						
STD	600	1.40	34.690	27.79	34.01	.294	14649						
OBS	636	1.35	34.693	27.80			14653	454	176	369	98	791	
STD	700	1.34	34.704	27.81	32.39	.327	14663						
STD	800	1.28	34.714	27.82	31.29	.359	14677						
OBS	842	1.25	34.716	27.82			14682	465	220	359	103	791	
STD	900	1.11	34.709	27.82	30.46	.390	14686						
STD	1000	.87	34.693	27.83	29.81	.420	14691						
OBS	1034	.78	34.687	27.83			14692	477	219	383	114	802	
STD	1250	.58	34.684	27.84	27.74	.492	14719						
OBS	1268	.57	34.684	27.84			14722	486	201	388	123	806	
STD	1500	.50	34.685	27.84	27.49	.561	14757						
OBS	1515	.50	34.685	27.84			14759	491	215	391	119	799	
STD	1750	.37	34.677	27.85	26.68	.629	14793						
OBS	1772	.36	34.676	27.85			14796	493	241	398	128	801	
STD	2000	.25	34.679	27.85	25.96	.694	14829						
OBS	2033	.24	34.679	27.85			14834	504	220	413	134	800	
STD	2250	.18	34.673	27.85	25.46	.759	14868						
OBS	2280	.17	34.672	27.85			14873	510	216	373	123	800	
STD	2500	.09	34.666	27.85	25.72	.823	14906						
OBS	2528	.08	34.665	27.85			14910	518	256	388	122	795	
STD	2750	0.00	34.660	27.85	24.53	.886	14945						
OBS	2982	-.08	34.657	27.85			14981	538	229	365	130	795	
STD	3000	-.09	34.657	27.85	23.96	.946	14983						
STD	3250	-.17	34.655	27.86	22.55	1.004	15023						
STD	3500	-.23	34.655	27.86	21.93	1.060	15063						
OBS	3538	-.24	34.655	27.86			15069	500	249	368	128	800	4
STD	3750	-.28	34.654	27.86	20.31	1.113	15104						
STD	4000	-.31	34.654	27.86	19.69	1.163	15146						
OBS	4062	-.31	34.669	27.88			15157	571	221	423	121	802	2
STD	4500	-.29	34.652	27.86	19.63	1.261	15234						
OBS	4567	-.29	34.652	27.86			15247	576	228	400	123	798	
OBS	4679	-.29	34.657	27.86			15267	574	225	363	118	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	135	6MAY1963	1550	60030	2232 _w	4322	518	2	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			275	04	-5.0	0.0	270	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.54	33.915	27.28	80.73	0.000	14453						
OBS	2	-.54	33.915	27.28			14453	795	138	303	52	804	
STD	10	-.53	33.906	27.27	81.44	.008	14455						
STD	20	-.51	33.898	27.26	82.05	.016	14457						
OBS	26	1.21	33.895	27.17			14537	790	188	322	55	821	1
STD	30	-.50	33.896	27.26	82.19	.024	14459						
OBS	50	-.47	33.900	27.26			14464	793	194	329	54	809	
STD	50	-.47	33.900	27.26	81.89	.041	14464						
OBS	73	-.10	33.942	27.28			14486	777	100	313	58	823	
STD	75	-.09	33.943	27.28	80.50	.061	14486						
OBS	96	-.04	33.965	27.29			14492	777	155	297	55	809	
STD	100	-.05	33.990	27.31	76.76	.081	14493						
OBS	146	.04	34.336	27.59			14509	591	188	427	84	804	
STD	150	.11	34.357	27.60	49.54	.112	14513						
OBS	198	1.00	34.536	27.69			14564	487	86	451	93	793	
STD	200	1.02	34.540	27.70	41.14	.135	14565						
STD	250	1.30	34.618	27.74	37.43	.155	14587						
OBS	296	1.29	34.639	27.76			14594	460	209	436	101	793	
STD	300	1.29	34.641	27.76	35.76	.173	14595						
STD	400	1.12	34.665	27.79	33.22	.208	14604						
OBS	401	1.12	34.665	27.79			14604	467	193	417	102	797	
STD	500	1.07	34.689	27.81	30.64	.239	14618						
STD	600	1.03	34.704	27.83	29.99	.270	14633						
OBS	604	1.03	34.704	27.83			14634	471	104	459	110	795	
STD	700	.87	34.694	27.83	29.32	.299	14642						
STD	800	.69	34.678	27.83	29.08	.329	14650						
OBS	804	.68	34.677	27.83			14650	483	117	460	116	800	
STD	900	.58	34.671	27.83	28.82	.358	14661						
OBS	990	.51	34.670	27.83			14673	487	191	474	124	798	
STD	1000	.51	34.671	27.83	28.42	.386	14675						
OBS	1167	.46	34.689	27.85			14700	480	177	448	124	802	
STD	1250	.46	34.686	27.85	26.51	.455	14714						
OBS	1375	.45	34.677	27.84			14734	463	171	445	122	804	
STD	1500	.41	34.674	27.84	27.40	.522	14753						
OBS	1629	.35	34.673	27.84			14772	482	231	467	116	802	
STD	1750	.29	34.672	27.85	26.27	.589	14789						
OBS	1885	.23	34.670	27.85			14809	510	196	471	137	804	
STD	2000	.18	34.668	27.85	25.99	.655	14826						
OBS	2127	.13	34.664	27.85			14845	516	182	405	136	802	
STD	2250	.09	34.656	27.84	25.78	.719	14864						
OBS	2370	.06	34.650	27.84			14883	522	217	445	133	801	
STD	2500	.02	34.651	27.84	26.01	.784	14903						
OBS	2612	-.02	34.653	27.85			14920	527	205	417	135	802	
STD	2750	-.08	34.653	27.85	24.13	.847	14941						
OBS	2811	-.11	34.652	27.85			14950	538	230	305	133	800	
STD	3000	-.17	34.650	27.85	23.50	.906	14980						
STD	3250	-.22	34.646	27.85	22.58	.964	15020						
OBS	3356	-.23	34.644	27.85			15038	556	168	395	130	791	
STD	3500	-.25	34.642	27.85	22.65	1.020	15062						
STD	3750	-.27	34.638	27.85	21.54	1.076	15104						
OBS	3867	-.28	34.635	27.85			15125	567	225	427	123	795	
STD	4000	-.28	0.000	0.00	0.00	0.000	0						
OBS	4313	-.30	34.677	27.88			15202	574	200	436	110	790	2

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	136	8MAY1963	1004	5859S	2740W	2880	482	87	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		250	4	-6.3	0.0	240	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.72	33.792	27.18	89.46	0.0000	14443						
OBS	2	-.72	33.792	27.18			14443	797	149	234	60	811	
STD	10	-.69	33.785	27.18	90.02	.009	14446						
STD	20	-.66	33.779	27.17	90.54	.018	14449						
OBS	27	-.65	33.776	27.17			14450	801	166	293	61	802	
STD	30	-.65	33.776	27.17	90.75	.027	14451						
STD	50	-.64	33.774	27.17	90.78	.045	14454						
OBS	51	-.64	33.776	27.17			14454	798	136	282	53	806	
STD	75	-.44	33.911	27.27	81.29	.067	14470						
OBS	76	-.43	33.920	27.28			14470	702	108	320	70		
STD	100	-.75	34.208	27.52	56.97	.084	14463						
OBS	102	-.78	34.232	27.54			14463	692	166	338	93	802	
OBS	150	.15	34.436	27.66			14516	564	198	414	97	805	
STD	150	.15	34.436	27.66	43.72	.109	14516						
OBS	199	.87	34.579	27.74			14559	498	145	394	95	793	
STD	200	.88	34.580	27.74	37.14	.129	14559						
STD	250	1.01	34.631	27.77	34.36	.147	14574						
OBS	299	.90	34.638	27.78			14577	486	196	387	113	796	
STD	300	.90	34.638	27.78	33.19	.164	14577						
OBS	399	.90	34.666	27.80			14594	481	191	363	96	798	
STD	400	.90	34.666	27.80	31.51	.197	14594						
STD	500	.86	34.671	27.81	30.37	.227	14608						
OBS	599	.78	34.668	27.81			14621	485	167	400	113	792	
STD	600	.78	34.668	27.81	30.73	.258	14621						
STD	700	.66	34.671	27.82	29.43	.288	14632						
OBS	800	.55	34.674	27.83			14643	490	174	398	131		
STD	800	.55	34.674	27.83	28.29	.317	14644						
STD	900	.48	34.672	27.84	27.93	.345	14657						
OBS	1000	.43	34.669	27.84			14671	490	236	407	141	797	
STD	1000	.43	34.669	27.84	27.96	.373	14671						
OBS	1106	.41	34.668	27.84			14687	495	193	346	134	788	
OBS	1223	.35	34.666	27.84			14704	502	179	374	115	791	
STD	1250	.34	34.668	27.84	26.85	.442	14708						
OBS	1330	.31	34.673	27.85			14720	505	189	388	138	792	
OBS	1440	.26	0.000	0.00			0	507	206	425	146	796	
STD	1500	.23	34.665	27.84	26.47	.508	14745						
OBS	1570	.20	34.660	27.84			14663	510	166	388	141	780	
OBS	1668	.18	34.661	27.84			14678	515	116	418	132	791	
STD	1750	.15	34.661	27.84	25.69	.573	14783						
OBS	1898	.08	34.685	27.87			14712	529	111	400	126	791	2
STD	2000	.03	34.656	27.85	25.36	.637	14819						
OBS	2137	-.02	34.652	27.85			14747	531	99	392	143	809	
STD	2250	-.05	34.648	27.85	24.87	.700	14858						
OBS	2385	-.07	34.644	27.84			14786	532	208	408	141	811	
STD	2500	-.09	34.640	27.84	25.56	.763	14898						
OBS	2628	-.11	34.639	27.84			14825	540	191	420	135	807	
STD	2750	-.13	34.644	27.85	24.20	.825	14939						
OBS	2763	-.13	34.645	27.85			14847	547	99	394	139	810	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	137	10MAY1963	1210	6102S	2558W	3926	518	15	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		150	1	-11.5	U.U	U	U						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.54	33.835	27.25	83.59	0.000	14405						
OBS	2	-1.54	33.835	27.25			14405	809	138	268	58	807	
STD	10	-1.55	33.811	27.23	85.32	.008	14406						
STD	20	-1.55	33.795	27.22	86.42	.017	14407						
OBS	28	-1.56	33.794	27.21			14408	832	152	274	57	812	
STD	30	-1.49	33.795	27.21	86.54	.026	14412						
STD	50	-.80	33.841	27.23	85.06	.043	14448						
OBS	52	-.73	33.850	27.23			14451	845	133	244	60	814	
STD	75	-.84	34.011	27.37	71.99	.062	14452						
OBS	78	-.89	34.037	27.39			14451	757	168	268	67	804	
STD	100	-.98	34.224	27.54	54.85	.078	14453						
OBS	104	-.99	34.255	27.57			14453	691	145	272	84	799	
STD	150	-.94	34.384	27.67	42.57	.103	14465						
OBS	154	-.92	34.387	27.67			14467	641	176	288	89	797	
STD	200	-.49	34.504	27.75	35.19	.122	14496						
OBS	204	-.45	34.513	27.76			14498	563	156	389	97	797	
STD	250	-.09	34.583	27.79	31.24	.139	14524						
STD	300	.21	34.628	27.82	29.56	.154	14546						
OBS	306	.24	34.631	27.82			14548	505	177	388	107	794	
STD	400	.45	34.671	27.84	28.11	.183	14574						
OBS	408	.46	34.672	27.84			14575	492	168	393	114	793	
STD	500	.42	34.675	27.84	27.02	.210	14589						
STD	600	.38	34.678	27.85	27.13	.237	14604						
OBS	610	.37	34.678	27.85			14604	481	158	326	113	788	
STD	700	.34	34.678	27.85	26.55	.264	14618						
STD	800	.31	34.676	27.85	26.32	.291	14633						
OBS	812	.31	34.676	27.85			14635	486	155	312	118	789	
STD	900	.28	34.673	27.85	26.32	.317	14648						
STD	1000	.25	34.670	27.85	26.45	.343	14663						
OBS	1012	.25	34.670	27.85			14665	493	205	311	122	787	
STD	1250	.19	34.668	27.85	25.58	.408	14702						
STD	1500	.11	34.669	27.85	25.07	.472	14739						
OBS	1689	.02	34.668	27.86			14767	521	163	256	121	790	
STD	1750	-.03	34.667	27.86	23.47	.532	14775						
OBS	1940	-.17	34.665	27.87			14800	529	182	388	122	788	
STD	2000	-.18	34.664	27.86	22.70	.590	14810						
OBS	2192	-.17	34.661	27.86			14842	545	165	388	122	789	
STD	2250	-.19	34.660	27.86	22.56	.647	14851						
OBS	2443	-.25	34.657	27.86			14881	556	181	409	117	790	
STD	2500	-.26	34.657	27.86	22.46	.703	14891						
OBS	2697	-.29	34.659	27.87			14923	563	145	424	121	788	
STD	2750	-.32	34.658	27.87	21.03	.757	14930						
OBS	2953	-.41	34.654	27.87			14961	579	160	298	116	788	
STD	3000	-.41	34.654	27.87	20.18	.809	14969						
OBS	3201	-.42	34.657	27.87			15003	582	155	271	114		
STD	3250	-.44	34.656	27.87	19.09	.858	15011						
OBS	3455	-.49	34.628	27.85			15043	596	175	228	112	787	2
STD	3500	-.49	34.652	27.87	18.79	.905	15051						
OBS	3712	-.46	34.633	27.85			15089	595	160	225	111	790	2
STD	3750	-.46	34.647	27.86	18.40	.952	15096						
OBS	3959	-.44	34.643	27.86			15133	602	192	314	108	787	
STD	4000	-.44	34.643	27.86	18.56	.998	15140						
OBS	4041	-.44	34.643	27.86			15148	596	153	308	111	785	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	138	11MAY1963	530	6056S	2756W	3679	518	7	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			5	5	-1.7	0.0	0	0					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.74	33.769	27.20	88.18	0.000	14395						
OBS	2	-1.74	33.769	27.20			14395	813	172	304	60	814	
STD	10	-1.74	33.755	27.19	89.13	.009	14396						
STD	20	-1.74	33.743	27.18	90.00	.018	14398						
OBS	30	-1.73	33.735	27.17			14399	816	172	389	69	811	
STD	30	-1.73	33.735	27.17	90.52	.027	14400						
STD	50	-1.72	33.734	27.17	90.41	.045	14403						
OBS	53	-1.70	33.735	27.17			14404	814	139	367	62	813	
STD	75	-1.19	33.715	27.14	93.49	.068	14432						
OBS	78	-1.12	33.729	27.15			14436	743	199	360	72	805	
STD	100	-1.11	34.237	27.56	53.35	.086	14447						
OBS	104	-1.13	34.340	27.64			14448	662	157	322	88	801	
STD	150	-.62	34.535	27.78	32.39	.108	14482						
OBS	155	-.55	34.520	27.77			14486	568	152	349	103	800	
STD	200	-.25	34.584	27.80	30.30	.123	14508						
OBS	203	-.24	34.586	27.80			14509	535	163	369	99	797	
STD	250	-.05	34.623	27.83	28.35	.138	14526						
OBS	300	.09	34.645	27.84			14541	503	164	353	118	794	
STD	300	.09	34.645	27.84	27.53	.152	14541						
OBS	398	.34	34.664	27.84			14568	479	188	342	117	793	
STD	400	.34	34.664	27.84	27.86	.180	14569						
STD	500	.38	34.676	27.84	26.63	.207	14587						
OBS	600	.42	34.683	27.85			14605	464	176	395	120	789	
STD	600	.42	34.683	27.85	26.99	.234	14605						
STD	700	.40	34.685	27.85	26.40	.260	14621						
OBS	796	.35	34.684	27.85			14634	477	184	380	124	789	
STD	800	.35	34.684	27.85	26.01	.287	14635						
STD	900	.29	34.681	27.85	25.85	.313	14649						
OBS	987	.24	34.677	27.85			14660	491	197	389	76	790	7
STD	1000	.24	34.676	27.85	25.85	.338	14662						
STD	1250	.14	34.670	27.85	24.93	.402	14699						
OBS	1484	.04	34.672	27.86			14733	513	196	310	118	791	
STD	1500	.03	34.673	27.86	24.03	.463	14736						
OBS	1614	-.04	34.678	27.87			14751	523	172	380	130	793	
OBS	1745	-.08	34.659	27.86			14771	533	182	380	130	797	
STD	1750	-.08	34.659	27.86	23.64	.523	14772						
OBS	1874	-.13	34.569	27.79			14789	539	176	427	111	794	2
STD	2000	-.20	34.657	27.86	23.01	.581	14809						
OBS	2004	-.20	34.657	27.86			14809	547	171	404	111	795	
STD	2250	-.24	34.655	27.86	22.36	.638	14849						
OBS	2265	-.24	34.655	27.86			14851	552	171	357	111	796	
STD	2500	-.31	34.649	27.86	22.46	.694	14888						
OBS	2526	-.32	34.649	27.86			14892	566	185	427	129	799	
STD	2750	-.38	34.658	27.87	20.26	.747	14927						
OBS	2785	-.39	34.660	27.87			14933	573	172	404	127	799	
STD	3000	-.41	34.664	27.88	19.55	.797	14969						
OBS	3043	-.41	34.664	27.88			14976	578	171	357	123	795	
STD	3250	-.41	34.657	27.87	19.30	.845	15012						
OBS	3301	-.41	34.656	27.87			15021	584	180	328	121	793	
STD	3500	-.40	34.661	27.87	19.27	.894	15055						
OBS	3578	-.40	34.665	27.88			15069	584	166	227	126	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 8	139	12MAY1963	835	6155S	2742W	2573	518	17	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		355	3	- .2	0.0	0	0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.88	34.013	27.40	69.11	0.000	14392						
OBS	2	-1.88	34.013	27.40			14392	803	130	218	52	821	
STD	10	-1.88	33.997	27.39	70.24	.007	14393						
STD	20	-1.88	33.998	27.39	70.07	.014	14395						
STD	30	-1.88	33.990	27.38	70.62	.021	14396						
OBS	32	-1.88	33.988	27.38			14396	808	128	305	52	816	
STD	50	-1.90	34.012	27.40	68.66	.035	14399						
OBS	55	-1.89	34.033	27.42			14400	694	110	229	54	820	
STD	75	-1.69	34.256	27.59	50.47	.050	14416						
OBS	81	-1.62	34.327	27.65			14421	695	122	272	68	807	
STD	100	-1.47	34.408	27.71	39.06	.061	14433						
OBS	108	-1.40	34.426	27.72			14437	660	145	367	73	807	
STD	150	-.74	34.561	27.81	29.86	.078	14477						
OBS	162	-.54	34.590	27.82			14488	554	144	426	83	802	
STD	200	-.08	34.630	27.83	27.69	.093	14516						
OBS	212	.03	34.635	27.83			14523	483	170	425	90	797	
STD	250	.24	34.656	27.84	27.49	.106	14540						
STD	300	.36	34.673	27.84	27.03	.120	14554						
OBS	314	.37	34.676	27.85			14556	455	153	445	96	794	
STD	400	.43	34.682	27.85	27.08	.147	14573						
OBS	416	.43	34.682	27.85			14575	450	135	449	101	794	
STD	500	.41	34.682	27.85	26.40	.174	14589						
STD	600	.40	34.683	27.85	26.87	.201	14604						
OBS	624	.39	34.683	27.85			14608	457	119	430	109	792	
STD	700	.36	34.682	27.85	26.36	.227	14619						
STD	800	.30	34.680	27.85	26.01	.253	14633						
OBS	826	.29	34.679	27.85			14636	472	132	407	107	794	
STD	900	.26	34.683	27.86	25.42	.279	14647						
STD	1000	.21	34.679	27.86	25.50	.304	14662						
OBS	1026	.20	34.676	27.85			14665	490	178	392	112	794	
OBS	1078	.16	34.660	27.84			14671	496	121	353	110	793	
OBS	1195	.08	34.666	27.85			14687	503	146	324	111	795	
STD	1250	.06	34.666	27.85	24.60	.367	14695						
OBS	1312	.03	34.663	27.85			14704	511	121	347	111	795	
OBS	1428	-.03	34.652	27.85			14721	526	192	441	106	797	
STD	1500	-.05	34.651	27.85	25.02	.429	14732						
OBS	1545	-.05	34.653	27.85			14739	524	187	304	111	794	
OBS	1660	-.06	34.669	27.86			14758	522	182	419	108	795	
STD	1750	-.07	34.664	27.86	23.34	.490	14773						
OBS	1774	-.08	34.662	27.86			14776	528	156	441	109	797	
OBS	1886	-.13	34.670	27.87			14793	535	123	371	109	798	
STD	2000	-.18	34.665	27.87	22.55	.547	14810						
OBS	2112	-.23	34.659	27.86			14826	544	137	371	104	796	
STD	2250	-.26	34.669	27.87	21.08	.602	14848						
OBS	2334	-.28	34.675	27.88			14862	553	175	433	103	796	
OBS	2437	-.30	34.673	27.88			14878	555	187	359	112	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	140	13MAY1963	1100	6309S	2726W	4509	518	37	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			190	04	-4.1	0.0		0					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-1.90	34.172	27.53	56.85	0.000	14393						
OBS	2	-1.90	34.172	27.53			14393	798	135	223	63	812	
STD	10	-1.90	34.161	27.52	57.59	.006	14394						
STD	20	-1.90	34.150	27.51	58.36	.012	14396						
OBS	28	-1.90	34.143	27.51			14397	803	135	272	56	812	
STD	30	-1.90	34.142	27.50	58.90	.017	14397						
STD	50	-1.89	34.133	27.50	59.38	.029	14401						
OBS	52	-1.89	34.133	27.50			14401	804	122	247	52	813	
STD	75	-1.88	34.131	27.50	59.62	.044	14406						
OBS	78	-1.87	34.139	27.50			14406	798	126	286	70	814	
STD	100	-1.73	34.366	27.68	41.50	.057	14420						
OBS	104	-1.69	34.413	27.72			14423	693	163	289	78	807	
STD	150	-.49	34.584	27.81	29.27	.074	14489						
OBS	154	-.37	34.587	27.81			14495	521	172	363	100	795	
STD	200	.24	34.651	27.83	27.84	.089	14531						
OBS	204	.27	34.654	27.83			14534	460	170	379	112	797	
STD	250	.46	34.677	27.84	27.28	.102	14550						
STD	300	.45	34.680	27.84	27.04	.116	14558						
OBS	306	.46	34.682	27.84			14559	443	169	379	121	791	
STD	400	.47	34.692	27.85	26.64	.143	14575						
OBS	408	.47	34.692	27.85			14576	447	171	336	123	792	
STD	500	.45	34.690	27.85	26.09	.169	14590						
STD	600	.41	34.684	27.85	26.89	.196	14605						
OBS	610	.41	34.683	27.85			14607	451	153	396	123	791	
STD	700	.37	34.681	27.85	26.53	.222	14619						
STD	800	.33	34.680	27.85	26.14	.249	14634						
OBS	812	.32	34.680	27.85			14636	469	160	390	134	793	
STD	900	.28	34.680	27.85	25.76	.275	14648						
STD	1000	.23	34.680	27.86	25.51	.300	14662						
OBS	1012	.22	34.680	27.86			14664	482	182	391	132	795	
STD	1250	.13	34.676	27.86	24.46	.363	14699						
OBS	1331	.10	34.674	27.86			14711	498	174	328	136	795	
STD	1500	.03	34.672	27.86	24.08	.424	14736						
OBS	1582	-.01	34.671	27.86			14748	515	165	390	134	795	
STD	1750	-.06	34.667	27.86	23.18	.483	14773						
OBS	1835	-.09	34.665	27.86			14786	525	153	361	129	789	
STD	2000	-.15	34.660	27.86	23.25	.541	14811						
OBS	2083	-.18	34.658	27.86			14824	533	203	370	136	790	
STD	2250	-.22	34.659	27.86	22.24	.598	14850						
OBS	2339	-.24	34.660	27.86			14864	443	192	341	132	796	
STD	2500	-.26	34.658	27.86	22.36	.653	14890						
OBS	2596	-.27	34.657	27.86			14907	550	180	356	130	795	
STD	2750	-.28	34.657	27.86	21.50	.708	14932						
OBS	2846	-.29	34.657	27.86			14948	561	207	344	132	794	
STD	3000	-.32	34.655	27.86	21.22	.761	14973						
OBS	3097	-.35	34.653	27.86			14989	555	186	367	131	791	
STD	3250	-.38	34.650	27.86	20.18	.813	15013						
STD	3500	-.43	34.647	27.86	19.89	.863	15054						
OBS	3598	-.45	34.646	27.86			15071	586	186	340	119	789	
STD	3750	-.48	34.646	27.86	18.12	.911	15095						
STD	4000	-.53	34.648	27.87	16.96	.955	15137						
OBS	4103	-.54	34.650	27.87			15155	580	179	363	117	788	
STD	4500	-.53	0.000	0.00	0.00	0.000	0						
OBS	4556	-.53	34.637	27.86			15235					791	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	141	15MAY1963	2142	6130S	2934W	4056	518	19	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		310	05	-0.2	0.0		0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.83	33.779	27.21	87.21	0.000	14391						
OBS	2	-1.83	33.779	27.21			14391	820	140	232	66	813	
STD	10	-1.84	33.752	27.19	89.14	.009	14391						
STD	20	-1.85	33.732	27.17	90.61	.018	14392						
OBS	30	-1.86	33.725	27.17			14393	817	154	292	63	834	
STD	30	-1.86	33.725	27.17	91.00	.027	14393						
OBS	50	-1.64	33.754	27.18			14407	806	135	294	65	835	
STD	50	-1.64	33.754	27.18	89.10	.045	14407						
OBS	74	-1.00	33.918	27.30			14444	782	160	310	62	834	
STD	75	-1.01	33.933	27.31	77.40	.066	14443						
OBS	98	-1.42	34.274	27.60			14433	691	158	340	88	828	
STD	100	-1.41	34.291	27.61	48.21	.081	14434						
OBS	147	-.76	34.498	27.76			14475	580	180	394	94	824	
STD	150	-.72	34.506	27.76	34.13	.102	14477						
OBS	192	-.18	34.587	27.80			14510	531	178	396	106	825	
STD	200	-.12	34.596	27.81	30.07	.118	14514						
STD	250	.14	34.634	27.82	28.64	.133	14535						
OBS	286	.20	34.642	27.83			14544	499	196	387	139	822	
STD	300	.22	34.646	27.83	28.23	.147	14547						
OBS	379	.28	34.661	27.84			14563	482	143	383	121	833	
STD	400	.30	34.665	27.84	27.55	.175	14567						
STD	500	.36	34.677	27.85	26.42	.202	14586						
OBS	571	.38	34.682	27.85			14599	472	210	399	119	820	
STD	600	.38	34.682	27.85	26.75	.228	14603						
STD	700	.34	34.680	27.85	26.40	.255	14618						
OBS	764	.31	34.677	27.85			14627	482	189	398	119	820	
STD	800	.30	34.676	27.85	26.22	.281	14632						
STD	900	.25	34.674	27.85	26.07	.307	14647						
OBS	960	.23	34.673	27.85			14656	491	177	399	134	822	
STD	1000	.21	34.673	27.85	25.93	.333	14661						
OBS	1095	0.00	34.674	0.00			0	494	169	390	135	821	
STD	1250	.11	34.677	27.86	24.24	.396	14698						
OBS	1305	.09	34.677	27.86			14707	504	184	365	139	818	
STD	1500	.02	34.668	27.86	24.34	.457	14735						
OBS	1511	-.07	34.667	27.86			14734	516	168	368	134	821	1
OBS	1717	-.06	34.668	27.86			14769	523	218	409	140	821	
STD	1750	-.07	34.665	27.86	23.26	.516	14773						
OBS	1947	-.13	34.652	27.85			14804	533	152	390	124	820	
STD	2000	-.15	34.654	27.85	23.76	.575	14811						
OBS	2173	-.20	34.662	27.86			14839	541	196	399	135	821	
STD	2250	-.22	34.663	27.87	21.99	.632	14850						
STD	2500	-.29	34.661	27.87	21.82	.687	14889						
OBS	2658	-.33	34.658	27.87			14915	564	169	369	138	821	
STD	2750	-.36	34.657	27.87	20.65	.740	14929						
STD	3000	-.42	34.653	27.87	20.20	.791	14968						
OBS	3113	-.44	34.652	27.87			14988	574	173	384	121	821	
STD	3250	-.45	34.650	27.87	19.38	.841	15010						
STD	3500	-.44	34.650	27.87	19.54	.889	15053						
OBS	3599	-.44	34.650	27.87			15072	589	149	400	124	820	
STD	3750	-.45	34.652	27.87	18.13	.936	15096						
STD	4000	-.46	34.659	27.87	17.13	.981	15140						
OBS	4091	-.46	34.663	27.88			15157	592	198	415	113	819	
STD	4500	-.42	0.000	0.00	0.00	0.000	0						
OBS	4501	-.42	34.639	27.86			15231	600	152	388	122	819	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	142	17MAY1963	545	6018S	2937W	2348	518	9	17				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		0	5	0.0	0.0	10	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-1.06	33.862	27.25	82.91	0.000	14428						
OBS	2	-1.06	33.862	27.25			14428	802	106	256	65	826	
STD	10	-1.06	33.850	27.24	83.75	.008	14430						
STD	20	-1.05	33.840	27.24	84.50	.017	14431						
OBS	25	-1.05	33.836	27.23			14432	802	111	259	57	837	
STD	30	-1.05	33.836	27.23	84.75	.025	14433						
OBS	48	-1.04	33.834	27.23			14436	805	130	238	57	838	
STD	50	-1.03	33.832	27.23	84.99	.042	14437						
OBS	71	-.90	33.856	27.24			14447	789	131	263	56	824	
STD	75	-.89	33.888	27.27	81.25	.063	14448						
OBS	93	-.87	34.061	27.41			14454	730	146	267	68	822	
STD	100	-.86	34.120	27.46	63.26	.081	14457						
OBS	142	-.69	34.391	27.67			14475	611	136	343	81	819	
STD	150	-.62	34.420	27.69	41.18	.107	14481						
OBS	191	-.21	34.514	27.75			14507	553	124	319	85	814	
STD	200	-.14	34.531	27.76	34.90	.126	14513						
STD	250	.17	34.604	27.80	31.06	.143	14536						
OBS	285	.31	34.634	27.81			14548	503	145	364	94	822	
STD	300	.33	34.640	27.82	29.38	.158	14552						
OBS	385	.35	34.648	27.82			14566	493	155	379	122	812	
STD	400	.35	34.650	27.83	29.01	.187	14569						
STD	500	.35	34.660	27.83	27.68	.215	14585						
OBS	588	.35	34.666	27.84			14600	487	154	364	122	812	
STD	600	.35	34.667	27.84	27.71	.243	14602						
STD	700	.33	34.671	27.84	26.93	.270	14617						
OBS	793	.30	34.672	27.85			14631	483	162	354	130	811	
STD	800	.30	34.672	27.85	26.56	.297	14632						
OBS	872	.28	34.669	27.84			14643	489	178	307	123	808	
STD	900	.27	34.668	27.84	26.60	.324	14647						
OBS	982	.24	34.670	27.85			14659	490	161	375	150	810	
STD	1000	.23	34.672	27.85	26.19	.350	14662						
OBS	1012	.23	34.673	27.85			14664	494	179	368	127	806	
OBS	1143	.18	34.672	27.85			14683	497	196	331	126	808	
STD	1250	.15	34.666	27.85	25.41	.415	14700						
OBS	1273	.15	34.665	27.85			14703	503	198	356	133	806	
OBS	1407	.12	34.675	27.86			14724	509	177	268	117	801	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	143	18MAY1963	1110	5956S	2730W	1463	482	97	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		120	5	-0.5	0.0	120	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.45	33.771	27.19	88.74	0.000	14408						
OBS	2	-1.45	33.771	27.19			14408	808	160	290	63	819	
STD	10	-1.45	33.750	27.18	90.27	.009	14410						
STD	20	-1.44	33.732	27.16	91.60	.018	14412						
OBS	23	-1.44	33.728	27.16			14412	807	174	260	64	820	
STD	30	-1.44	33.728	27.16	91.78	.027	14413						
OBS	49	-1.44	33.729	27.16			14416	807	156	272	65	821	
STD	50	-1.44	33.727	27.16	91.74	.046	14417						
OBS	73	-1.26	33.790	27.20			14429	799	178	270	67	821	
STD	75	-1.24	33.826	27.23	84.76	.068	14431						
OBS	98	-0.95	34.289	27.60			14455	658	189	338	82	812	
STD	100	-0.92	34.310	27.61	48.54	.084	14457						
OBS	148	-0.15	34.525	27.75			14503	553	212	376	96	806	
STD	150	-0.13	34.531	27.75	35.07	.105	14505						
OBS	197	.30	34.618	27.80			14533	511	200	385	101	805	
STD	200	.31	34.621	27.80	30.61	.122	14534						
STD	250	.36	34.634	27.81	29.92	.137	14545						
OBS	299	.41	34.648	27.82			14555	494	210	381	108	803	
STD	300	.41	34.648	27.82	29.23	.152	14555						
OBS	388	.40	34.664	27.83			14569	488	200	364	114	803	
STD	400	.40	34.668	27.84	27.96	.180	14571						
STD	500	.38	34.688	27.85	25.70	.207	14587						
STD	600	.36	34.690	27.86	26.04	.233	14603						
OBS	607	.36	34.691	27.86			14604	488		405		802	
OBS	659	.36	34.675	27.84			14612	489	208	384	116	803	
STD	700	.35	34.667	27.84	27.39	.260	14618						
STD	800	.30	34.671	27.85	26.62	.287	14633						
OBS	807	.30	34.673	27.85			14633	495	218	407	118	803	
OBS	852	.28	34.688	27.86			14640	488	207	417	119	801	
STD	900	.27	34.690	27.86	24.95	.312	14648						
STD	1000	.25	34.682	27.86	25.57	.338	14663						
OBS	1005	.25	34.681	27.86			14664	489	210	404	119	802	
OBS	1058	.23	34.680	27.86			14672	494	207	418	123	806	
OBS	1113	.23	34.682	27.86			14681	498	211	358	124	805	
OBS	1168	.22	34.677	27.85			14689	495	208	403	125	805	
OBS	1225	.19	34.680	27.86			14697	504	206	414	122	806	
STD	1250	.18	34.680	27.86	24.61	.400	14701						
OBS	1274	.18	34.680	27.86			14705	509	209	392	119	808	
OBS	1326	.16	34.682	27.86			14713	505	211	375	123	807	
OBS	1377	.13	34.671	27.85			14720	506	214	384	125	806	
OBS	1444	.11	34.676	27.86			14730	507	221	415	124	806	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	144	20MAY1963	348	5933S	2404W	6666	482	94	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			105	4	-3	0.0	110	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	.93	34.067	27.32	76.47	0.000	14522						
OBS	2	.93	34.067	27.32			14522	762	135	244	40	826	
STD	10	.92	34.044	27.30	78.09	.008	14523						
STD	20	.90	34.024	27.29	79.56	.016	14524						
OBS	24	.90	34.018	27.28			14524	762	149	268	37	817	
STD	30	.90	34.014	27.28	80.24	.024	14525						
STD	50	.88	34.014	27.28	80.16	.040	14527						
OBS	51	.88	34.014	27.28			14527	759	139	229	39	818	
OBS	75	.81	34.016	27.29			14528	765	151	253	39	816	
STD	75	.81	34.016	27.29	79.76	.060	14528						
OBS	100	.77	34.010	27.29			14530	764	137	240	37	818	
STD	100	.77	34.010	27.29	79.70	.080	14530						
STD	150	.07	34.210	27.49	60.47	.115	14509						
OBS	152	.04	34.221	27.50			14508	663	190	300	72	808	
STD	200	.08	34.417	27.65	44.76	.141	14521						
OBS	202	.09	34.424	27.66			14522	569	172	337	87	804	
STD	250	.69	34.538	27.72	39.25	.162	14558						
STD	300	1.26	34.604	27.73	38.35	.181	14593						
OBS	305	1.32	34.608	27.73			14596	488	200	382		804	
OBS	394	.85	34.659	27.80			14590	480	176	362	104	800	
STD	400	.83	34.660	27.80	31.46	.216	14591						
STD	500	.57	34.661	27.82	29.08	.246	14596						
STD	600	.46	34.664	27.83	28.70	.275	14607						
OBS	614	.45	34.664	27.83			14608	491	171	367	115	801	
STD	700	.44	34.667	27.83	28.07	.304	14622						
STD	800	.44	34.672	27.84	27.54	.332	14639						
OBS	813	.30	34.673	27.85			14634	480	196	356	100	793	1
STD	900	.43	34.678	27.84	27.08	.359	14655						
STD	1000	.42	34.684	27.85	26.79	.386	14671						
OBS	1006	.42	34.684	27.85			14672	463	210	387	126	798	
STD	1250	.33	34.683	27.85	25.67	.451	14708						
STD	1500	.22	34.683	27.86	25.09	.515	14745						
OBS	1568	.19	34.681	27.86			14754	504	182	353	130	797	
STD	1750	.12	34.684	27.87	23.66	.576	14782						
STD	2000	.03	34.686	27.87	23.13	.634	14819						
OBS	2058	.01	34.686	27.87			14828	518	196	369	120	796	
STD	2250	-.04	34.677	27.87	22.88	.692	14858						
STD	2500	-.09	34.665	27.86	23.69	.750	14898						
OBS	2525	-.10	34.664	27.86			14902	532	175	242	126	799	
STD	2750	-.17	34.663	27.86	22.31	.807	14937						
OBS	2949	-.23	34.665	27.87			14968	546	171	386	130	798	
STD	3000	-.24	34.665	27.87	21.51	.862	14977						
STD	3250	-.28	34.664	27.87	20.44	.915	15018						
OBS	3469	-.31	34.663	27.87			15054	566	172	339	123	798	
STD	3500	-.32	34.662	27.87	20.31	.966	15059						
STD	3750	-.35	34.659	27.87	18.92	1.015	15101						
OBS	3961	-.38	34.660	27.87			15137	491	177	375	110	795	
STD	4000	-.38	34.662	27.87	18.01	1.061	15143						
OBS	4442	-.38	34.689	27.89			15221	479	172	372	126	792	
STD	4500	-.38	34.689	27.89	15.69	1.145	15231						
OBS	4930	-.38	34.684	27.89			15308	496	206	378	124	791	
STD	5000	-.37	34.682	27.89	15.86	1.224	15320						
OBS	5430	-.32	34.674	27.88			15399	508	185	332	127	790	
STD	5500	-.31	34.674	27.88	16.82	1.306	15411						
OBS	5944	-.28	34.676	27.88			15494	527	169	381	125	790	
STD	6000	-.27	34.676	27.88	17.63	1.392	15503						
STD	6500	-.22	34.670	27.87	18.07	1.481	15596						
OBS	6752	-.18	34.664	27.86			15645	550	191	366	130	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	145	21MAY1963	2357	5834S	2349W	6657	482	83	25				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			135	4	.4	0.0	120	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.22	33.999	27.33	75.66	0.000	14469						
OBS	2	-.22	33.999	27.33			14469	793	125	255	58	820	
STD	10	-.23	33.961	27.30	78.48	.008	14470						
OBS	19	-.23	33.932	27.28			14470	793	144	281	50	822	
STD	20	-.23	33.931	27.28	80.74	.016	14471						
STD	30	-.22	33.930	27.28	80.75	.024	14473						
OBS	44	-.20	33.928	27.27			14476	789	119	259	57	821	
STD	50	-.18	33.929	27.27	80.96	.040	14478						
OBS	70	-.10	33.937	27.27			14485	787	146	273	55	822	
STD	75	-.08	33.936	27.27	81.04	.060	14486						
OBS	95	-.08	33.954	27.29			14490	779	147	340	56	822	
STD	100	-.15	33.986	27.32	76.56	.080	14488						
OBS	148	-.77	34.350	27.64			14472	630	192	364	92	811	
STD	150	-.75	34.359	27.64	45.17	.110	14474						
OBS	198	-.12	34.523	27.75			14513	547	189	379	106	805	
STD	200	-.11	34.527	27.75	35.36	.130	14514						
STD	250	.16	34.610	27.80	30.52	.147	14535						
STD	300	.30	34.647	27.83	28.65	.162	14551						
OBS	303	.31	34.648	27.83			14551	491	196	392	107	802	
OBS	392	.87	34.692	27.83			14591	483	224	408	114	801	
STD	400	.87	34.694	27.83	29.19	.191	14593						
STD	500	.83	34.696	27.83	28.29	.219	14607						
STD	600	.82	34.700	27.84	28.66	.248	14623						
OBS	613	.78	34.700	27.84			14624	483	202	368	117	807	
STD	700	.63	34.696	27.85	27.34	.276	14631						
STD	800	.46	34.690	27.85	26.43	.303	14640						
OBS	813	.44	34.689	27.85			14641	482	181	363	121	802	
STD	900	.40	34.687	27.85	26.18	.329	14653						
STD	1000	.38	34.686	27.85	26.31	.355	14669						
OBS	1014	.38	34.686	27.85			14671	481	199	387	113	801	
STD	1250	.33	34.691	27.86	24.99	.419	14708						
OBS	1282	.32	34.692	27.86			14713	497	134	374	132	799	
STD	1500	.24	34.686	27.86	24.94	.482	14745						
OBS	1534	.22	34.685	27.86			14750	505	200	412	125	799	
STD	1750	.12	34.689	27.87	23.37	.542	14782						
OBS	1759	.12	34.689	27.87			14783	513	150	382	135	801	
OBS	1997	.03	34.677	27.86			14819	521	204	392	136	800	
STD	2000	.03	34.677	27.86	23.79	.601	14819						
STD	2250	-.04	34.673	27.87	23.10	.660	14858						
OBS	2479	-.10	34.673	27.87			14894	535	136	421	136	800	
STD	2500	-.11	34.673	27.87	23.00	.717	14897						
STD	2750	-.18	34.670	27.87	21.69	.773	14937						
OBS	2957	-.24	34.668	27.87			14969	553	168	413	123	798	
STD	3000	-.25	34.668	27.87	21.20	.827	14976						
STD	3250	-.29	34.666	27.87	20.16	.879	15017						
OBS	3444	-.32	34.665	27.87			15049	570	161	388	128	800	
STD	3500	-.33	34.665	27.87	19.97	.929	15059						
STD	3750	-.36	34.663	27.87	18.56	.977	15100						
OBS	3947	-.38	34.662	27.87			15134	579	189	382	115	800	
STD	4000	-.38	34.662	27.87	18.07	1.023	15143						
OBS	4467	-.38	34.661	27.87			15225	587	169	415	111	799	
STD	4500	-.38	34.661	27.87	17.71	1.112	15231						
OBS	4981	-.37	34.663	27.87			15317	592	185	397	120	800	
STD	5000	-.37	34.663	27.87	17.25	1.200	15320						
OBS	5487	-.32	34.670	27.88			15410	591	168	404	119	798	
STD	5500	-.32	34.670	27.88	17.04	1.285	15411						
OBS	5989	-.26	34.663	27.87			15502	598	196	415	126	796	
STD	6000	-.26	34.663	27.87	18.79	1.375	15503						
OBS	6486	-.22	34.659	27.86			15594	597	136	417	102	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	146	27MAY1963	948	5759S	2745W	3282	482	77	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			125	2	-2.4	0.0	110	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.16	34.153	27.44	65.70	0.000	14489						
OBS	2	.16	34.153	27.44			14489	772	156	249	52	801	
STD	10	.16	34.130	27.42	67.43	.007	14490						
STD	20	.17	34.108	27.40	69.06	.013	14492						
OBS	27	.17	34.098	27.39			14492	769	149	268	60	819	
STD	30	.17	34.100	27.39	69.67	.020	14493						
OBS	50	.17	33.882	27.22			14493	759	158	256	63	817	2
STD	50	.17	34.103	27.39	69.41	.034	14496						
STD	75	.18	34.130	27.42	67.52	.051	14501						
OBS	76	.18	34.132	27.42			14501	766	180	250	63	821	
STD	100	.22	34.144	27.43	66.40	.068	14507						
OBS	101	.22	34.147	27.43			14507	760	185	276	70	817	
OBS	124	.41	34.414	27.63			14523	578	196	354	66	805	
OBS	149	.61	34.485	27.68			14537	553	204	331	69	804	
STD	150	.62	34.487	27.68	42.55	.095	14538						
OBS	198	.88	34.553	27.72			14558	508	218	340	73	804	
STD	200	.89	34.555	27.72	39.14	.116	14560						
STD	250	1.12	34.608	27.74	36.85	.135	14579						
OBS	296	1.24	34.641	27.76			14592	470	209	333	70	801	
STD	300	1.24	34.643	27.76	35.26	.153	14593						
OBS	396	1.06	34.662	27.79			14600	471	221	349	63	799	
STD	400	1.06	34.663	27.79	32.91	.187	14601						
STD	500	1.05	34.679	27.81	31.20	.219	14617						
OBS	595	1.07	34.691	27.81			14633	470	222	290	69	802	
STD	600	1.07	34.691	27.81	31.17	.250	14634						
STD	700	.97	34.699	27.83	29.71	.281	14647						
OBS	796	.85	34.703	27.84			14657	482	208	352	75	801	
STD	800	.85	34.703	27.84	28.46	.310	14657						
STD	900	.74	34.703	27.84	27.74	.338	14669						
OBS	995	.65	34.701	27.85			14680	486	206	329	93	800	
STD	1000	.65	34.701	27.85	27.34	.365	14681						
OBS	1090	.59	34.701	27.85			14693	479	209	339	106	800	
OBS	1222	.51	34.685	27.84			14711	497	209	301	108	801	
STD	1250	.49	34.683	27.84	27.02	.433	14715						
OBS	1472	.36	34.679	27.85			14746	496	194	363	87	799	
STD	1500	.35	34.680	27.85	26.42	.500	14750						
OBS	1732	.25	34.685	27.86			14784	499	194	333	105	798	
STD	1750	.24	34.685	27.86	24.85	.564	14787						
OBS	1998	.16	34.674	27.86			14825	519	209	341	117	798	
STD	2000	.16	34.674	27.86	25.33	.627	14825						
STD	2250	.06	34.665	27.85	24.79	.690	14863						
OBS	2251	.06	34.665	27.85			14863	516	212	351	121	799	
STD	2500	-.04	34.670	27.86	23.96	.751	14900						
OBS	2503	-.04	34.670	27.86			14901	534	215	318	123	799	
STD	2750	-.08	34.662	27.86	23.45	.810	14941						
OBS	2757	-.08	34.662	27.86			14942	542	218	313	116	797	
OBS	2964	-.09	34.656	27.85			14977	535	217	338	108	798	
STD	3000	-.09	34.656	27.85	23.94	.869	14983						
STD	3250	-.10	34.670	27.87	22.37	.927	15026						
OBS	3303	-.10	34.675	27.87			15035	538	216	331	101	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	147	31MAY1963	2250	5548S	2738W	1121	482	57	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	4	-1.1	0.0	310	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.37	34.034	27.37	72.33	0.000	14463						
OBS	2	-.37	34.034	27.37			14463						
STD	10	-.37	34.004	27.34	74.57	.007	14464						
STD	20	-.36	33.983	27.32	76.12	.015	14465						
OBS	25	-.36	33.980	27.32			14466						
STD	30	-.36	33.985	27.33	76.00	.022	14467						
OBS	49	-.34	34.028	27.36			14471						
STD	50	-.34	34.029	27.36	72.62	.037	14472						
OBS	74	-.21	34.099	27.41			14482						
STD	75	-.19	34.111	27.42	67.20	.055	14484						
OBS	100	.40	34.393	27.62			14519						
STD	100	.40	34.393	27.62	48.44	.069	14519						
OBS	125	.45	34.406	27.62			14525						
OBS	147	.51	34.467	27.67			14532						
STD	150	.52	34.474	27.67	42.96	.092	14534						
OBS	198	.75	34.568	27.74			14553						
STD	200	.76	34.571	27.74	37.09	.112	14554						
STD	250	.90	34.637	27.78	33.14	.130	14569						
OBS	264	.92	34.651	27.79			14572						
OBS	283	.93	34.669	27.81			14576						
STD	300	.93	34.678	27.81	30.39	.146	14579						
STD	400	.90	34.686	27.82	30.03	.176	14594						
OBS	496	.88	34.700	27.83			14609						
STD	500	.88	34.700	27.83	28.33	.205	14610						
STD	600	.76	34.701	27.84	28.13	.233	14621						
OBS	697	.63	34.701	27.85			14631						
STD	700	.63	34.701	27.85	26.92	.261	14631						
STD	800	.54	34.702	27.86	26.11	.287	14644						
OBS	900	.47	34.704	27.86			14657						
STD	900	.47	34.704	27.86	25.48	.313	14657						
STD	1000	.39	34.705	27.87	24.92	.338	14670						
OBS	1162	.38	34.720	27.88			14696						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 8	148	1JUN1963	120	5545S	2738W	1364	482	57	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
320	5	-0.8	0.0	305	3

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-0.05	34.120	27.42	67.20	0.000	14478						
OBS	2	-0.05	34.120	27.42			14478						
STD	10	-0.06	34.059	27.37	71.77	.007	14479						
STD	20	-0.10	34.002	27.33	75.90	.014	14478						
OBS	22	-0.11	33.993	27.32			14477						
STD	30	-0.19	33.997	27.33	75.81	.022	14475						
OBS	43	-0.29	0.000	0.00			0						
STD	50	-0.26	34.007	27.34	74.67	.037	14476						
OBS	65	-0.14	34.014	27.34			14479						
STD	75	-0.12	34.013	27.34	74.95	.056	14486						
OBS	88	-0.08	34.032	27.35			14485						
STD	100	.08	34.097	27.39	69.24	.074	14500						
OBS	109	.21	34.169	27.45			14504						
OBS	129	.33	34.392	27.62			14516						
STD	150	.47	34.484	27.69	41.85	.101	14531						
OBS	172	.61	34.513	27.70			14537						
STD	200	.77	34.563	27.73	37.78	.121	14554						
OBS	246	.96	34.616	27.76			14566						
STD	250	.97	34.619	27.76	34.92	.140	14572						
STD	300	1.00	34.653	27.79	32.78	.156	14582						
OBS	336	.98	34.667	27.80			14583						
STD	400	.96	34.682	27.81	30.76	.188	14597						
STD	500	.90	34.689	27.82	29.34	.218	14611						
OBS	521	.88	34.688	27.82			14608						
STD	600	.79	34.687	27.83	29.33	.248	14622						
STD	700	.66	34.684	27.83	28.46	.277	14633						
OBS	702	.66	34.684	27.83			14628						
STD	800	.59	34.686	27.84	27.72	.305	14646						
OBS	888	.54	34.688	27.84			14653						
STD	900	.53	34.688	27.85	27.15	.332	14660						
STD	1000	.47	34.690	27.85	26.67	.359	14673						
OBS	1136	.42	34.693	27.86			14689						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	149	1JUN1963	402	5543S	2739W	1805	482	57	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		325	5	-.6	0.0	320	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.09	34.020	27.33	75.50	0.000	14483						
OBS	2	.09	34.020	27.33			14483						
STD	10	.10	34.014	27.33	75.99	.008	14485						
STD	20	.11	34.008	27.32	76.44	.015	14487						
OBS	24	.11	34.006	27.32			14488						
STD	30	.11	34.004	27.32	76.67	.023	14489						
OBS	45	.11	34.003	27.32			14491						
STD	50	.11	34.002	27.32	76.81	.038	14492						
OBS	64	.11	34.004	27.32			14494						
STD	75	.13	34.017	27.33	75.91	.057	14497						
OBS	85	.16	34.043	27.35			14500						
STD	100	.22	34.145	27.43	66.37	.075	14508						
OBS	106	.25	0.000	0.00			0						
OBS	126	.29	34.347	27.58			14513						
STD	150	.49	34.458	27.66	43.97	.103	14532						
OBS	169	.67	34.520	27.70			14540						
STD	200	.83	34.577	27.74	37.10	.123	14557						
STD	250	.97	34.615	27.76	35.27	.141	14572						
OBS	252	.97	34.615	27.76			14568						
STD	300	.98	34.640	27.78	33.66	.158	14581						
OBS	340	.95	34.651	27.79			14582						
STD	400	.96	34.668	27.80	31.78	.191	14597						
STD	500	.93	34.685	27.82	29.89	.222	14612						
OBS	508	.93	34.686	27.82			14609						
STD	600	.78	34.690	27.83	29.08	.251	14622						
OBS	671	.65	34.689	27.84			14623						
STD	700	.62	34.688	27.84	27.82	.280	14631						
STD	800	.52	34.684	27.84	27.31	.307	14643						
OBS	831	.50	34.683	27.84			14642						
STD	900	.44	34.680	27.84	26.97	.334	14655						
STD	1000	.34	34.684	27.85	26.12	.361	14667						
OBS	1127	.34	34.690	27.86			14684						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	150	1JUN1963	700	5537S	2739W	2472	482	57	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			335	6	-.4	0.0	320	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	.41	34.022	27.32	76.97	0.000	14498						
OBS	2	.41	34.022	27.32			14498						
STD	10	.41	34.019	27.31	77.17	.008	14500						
STD	20	.41	34.016	27.31	77.37	.015	14501						
OBS	24	.41	34.015	27.31			14502						
STD	30	.39	34.015	27.31	77.35	.023	14502						
STD	50	.36	34.013	27.31	77.20	.039	14504						
OBS	55	.33	34.013	27.31			14503						
OBS	63	.25	34.011	27.32			14501						
STD	75	.18	34.004	27.31	77.18	.058	14500						
OBS	82	.16	34.000	27.31			14499						
STD	100	.15	34.002	27.31	76.83	.077	14502						
OBS	101	.15	34.005	27.32			14502						
OBS	119	.20	34.201	27.47			14510						
STD	150	.04	34.370	27.62	48.11	.108	14510						
OBS	155	.01	34.386	27.63			14510						
STD	200	.44	34.530	27.72	38.19	.130	14539						
OBS	222	.71	34.573	27.74			14555						
STD	250	.81	34.606	27.76	34.91	.148	14565						
OBS	288	.85	34.628	27.78			14573						
STD	300	.85	34.633	27.78	33.21	.165	14575						
STD	400	.72	34.656	27.81	31.07	.197	14586						
OBS	417	.69	34.656	27.81			14587						
STD	500	.64	34.667	27.82	29.12	.228	14599						
OBS	547	.62	34.672	27.83			14605						
STD	600	.59	34.677	27.83	28.64	.256	14613						
OBS	680	.54	34.683	27.84			14623						
STD	700	.53	34.685	27.84	27.41	.284	14626						
STD	800	.47	34.693	27.85	26.24	.311	14640						
STD	900	.41	34.701	27.86	25.20	.337	14654						
OBS	949	.44	34.686	27.85			14663						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 8	151	1JUN1963	1023	5531S	2741W	4982	482	57	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
330	5	.5	0.0	330	5

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.54	34.037	27.32	76.52	0.000	14504						
OBS	2	.54	34.037	27.32			14504						
STD	10	.54	34.028	27.31	77.18	.008	14506						
STD	20	.54	34.019	27.31	77.83	.015	14507						
OBS	28	.54	34.014	27.30			14508						
STD	30	.54	34.013	27.30	78.24	.023	14509						
STD	50	.54	34.009	27.30	78.50	.039	14512						
OBS	54	.54	34.009	27.30			14512						
STD	75	.55	34.002	27.29	79.33	.059	14516						
OBS	76	.55	34.003	27.29			14516						
STD	100	.27	34.139	27.42	67.07	.077	14509						
OBS	102	.24	34.152	27.43			14508						
OBS	127	.01	34.239	27.51			14503						
OBS	150	-.01	34.366	27.62			14508						
STD	150	-.01	34.366	27.62	48.19	.106	14508						
OBS	200	.52	34.515	27.71			14542						
STD	200	.52	34.515	27.71	39.85	.128	14542						
STD	250	.88	34.597	27.75	36.01	.147	14568						
OBS	300	1.08	34.639	27.77			14585						
STD	300	1.08	34.639	27.77	34.40	.164	14585						
STD	400	1.05	34.672	27.80	32.15	.198	14601						
OBS	404	1.04	34.672	27.80			14601						
STD	500	.90	34.677	27.81	30.30	.229	14611						
STD	600	.74	34.671	27.82	30.23	.259	14620						
OBS	603	.74	34.671	27.82			14620						
STD	700	.66	34.671	27.82	29.44	.289	14632						
OBS	797	.61	34.671	27.83			14646						
STD	800	.61	34.671	27.83	28.97	.318	14646						
STD	900	.60	34.673	27.83	28.79	.347	14662						
OBS	985	.59	34.675	27.83			14676						
STD	1000	.59	34.675	27.83	28.79	.376	14678						
STD	1250	.41	34.668	27.84	27.42	.446	14711						
OBS	1307	.35	34.665	27.84			14718						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 8	152	1JUN1963	1407	5521S	2740W	7125	482	57	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
330	8	.8	0.0	330	4

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.61	34.031	27.31	77.36	0.000	14507						
OBS	6	.61	34.031	27.31			14507						
STD	10	.61	34.027	27.31	77.66	.008	14509						
STD	20	.60	34.018	27.30	78.30	.016	14510						
STD	30	.60	34.011	27.30	78.76	.023	14511						
OBS	32	.60	34.010	27.30			14511						
STD	50	.59	34.006	27.29	79.03	.039	14514						
OBS	62	.59	34.007	27.29			14515						
STD	75	.60	34.009	27.30	79.03	.059	14519						
OBS	87	.61	34.013	27.30			14520						
STD	100	.65	34.008	27.29	79.20	.079	14525						
OBS	113	.62	34.023	27.31			14525						
OBS	141	-.04	34.217	27.50			14502						
STD	150	-.09	34.262	27.54	55.65	.112	14503						
OBS	167	-.07	34.334	27.59			14507						
STD	200	.17	34.441	27.67	43.44	.137	14526						
OBS	221	.38	34.490	27.69			14538						
STD	250	.52	34.525	27.71	39.17	.158	14551						
STD	300	.68	34.559	27.73	37.76	.177	14567						
OBS	329	.73	34.563	27.73			14572						
STD	400	.82	34.618	27.77	34.59	.213	14590						
OBS	441	.84	34.646	27.79			14597						
STD	500	.82	34.664	27.81	30.69	.246	14607						
STD	600	.76	34.668	27.81	30.66	.277	14621						
OBS	648	.72	34.674	27.82			14626						
STD	700	.70	34.675	27.82	29.48	.307	14634						
STD	800	.67	34.673	27.83	29.28	.336	14649						
OBS	846	.65	34.671	27.82			14655						
STD	900	.60	34.669	27.83	29.17	.365	14663						
STD	1000	.52	34.666	27.83	28.91	.394	14675						
OBS	1031	.49	34.665	27.83			14678						
STD	1250	.38	34.666	27.84	27.29	.465	14710						
OBS	1346	.36	34.670	27.84			14724						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 8	153	1JUN1963	1755	5510S	2741W	6522	482	57	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
340	7	.4	0.0	315	6

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.80	34.071	27.33	75.40	0.000	14516						
OBS	2	.80	34.071	27.33			14516						
STD	10	.80	34.092	27.35	73.77	.007	14518						
STD	20	.80	34.104	27.36	72.82	.015	14520						
OBS	23	.80	34.105	27.36			14520						
STD	30	.80	34.095	27.35	73.50	.022	14522						
OBS	45	.81	34.066	27.33			14524						
STD	50	.81	34.060	27.32	76.19	.037	14525						
OBS	64	.81	34.051	27.32			14527						
STD	75	.79	34.038	27.31	77.96	.056	14528						
OBS	87	.73	34.055	27.32			14527						
STD	100	.58	34.168	27.42	66.57	.074	14524						
OBS	109	.47	34.257	27.50			14521						
OBS	130	.41	34.372	27.60			14524						
STD	150	.55	34.435	27.64	46.07	.103	14535						
OBS	174	.80	34.483	27.66			14550						
STD	200	.95	34.530	27.69	41.48	.124	14562						
STD	250	1.14	34.596	27.73	37.95	.144	14580						
OBS	266	1.18	34.610	27.74			14584						
STD	300	1.25	34.636	27.76	35.84	.163	14593						
OBS	363	1.29	34.665	27.78			14605						
STD	400	1.24	34.672	27.79	33.58	.197	14609						
STD	500	1.06	34.678	27.80	31.37	.230	14618						
OBS	548	.95	34.675	27.81			14620						
STD	600	.91	34.678	27.81	30.94	.261	14627						
STD	700	.86	34.684	27.82	29.97	.292	14641						
OBS	734	.85	34.686	27.82			14646						
STD	800	.83	34.690	27.83	29.36	.321	14657						
STD	900	.81	34.694	27.83	28.97	.350	14672						
OBS	916	.80	34.694	27.83			14674						
STD	1000	.78	34.694	27.83	28.99	.379	14687						
OBS	1235	.49	34.680	27.84			14712						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	154	6 JUN 1963	230	5907S	5427W	3833	485	94	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		175	3	-6.5	0.0	150	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	.26	33.973	27.29	79.93	0.000	14491						
OBS	2	.26	33.973	27.29			14491	771			25		
STD	10	.27	33.959	27.27	80.99	.008	14492						
STD	20	.28	33.946	27.26	81.96	.016	14494						
OBS	30	.28	33.939	27.26			14496	773			19		
STD	30	.28	33.939	27.26	82.51	.024	14496						
STD	50	.28	33.941	27.26	82.30	.041	14499						
OBS	56	.28	33.944	27.26			14500	771			22	816	
STD	75	.29	33.951	27.27	81.76	.061	14504						
OBS	82	.30	33.957	27.27			14505	776			29	811	
STD	100	.30	33.986	27.29	78.84	.081	14509						
OBS	108	.31	34.005	27.31			14510	743			29	810	
STD	150	.41	34.170	27.44	65.35	.118	14524						
OBS	163	.50	34.228	27.48			14531	502			54	795	
STD	200	1.17	34.347	27.53	56.81	.148	14569						
OBS	218	1.52	34.395	27.55			14588	463			66		
STD	250	1.78	34.457	27.58	53.16	.176	14606						
STD	300	1.98	34.524	27.61	49.93	.201	14624						
OBS	322	1.98	34.542	27.63			14627	422			78	790	
STD	400	2.05	34.584	27.66	46.66	.250	14644						
OBS	431	2.04	34.593	27.66			14648	421			82	788	
STD	500	2.03	34.622	27.69	43.56	.295	14660						
STD	600	1.99	34.657	27.72	41.55	.337	14675						
OBS	639	1.97	34.669	27.73			14680	420			90	790	
STD	700	1.94	34.685	27.75	39.14	.378	14689						
STD	800	1.88	34.703	27.77	37.45	.416	14703						
OBS	845	1.85	34.709	27.77			14709	413			94	788	
STD	900	1.80	34.711	27.78	36.50	.453	14716						
STD	1000	1.71	34.713	27.79	36.03	.489	14729						
OBS	1036	1.68	34.713	27.79			14733	443			100	790	
OBS	1222	1.55	34.727	27.81			14758	451			99	791	
STD	1250	1.53	34.728	27.81	33.42	.576	14762						
OBS	1472	1.34	34.729	27.83			14790	459			107	793	
STD	1500	1.32	34.728	27.83	32.35	.658	14794						
OBS	1733	1.16	34.722	27.83			14826	466			122	791	
STD	1750	1.15	34.721	27.83	31.36	.738	14828						
OBS	1999	.95	34.715	27.84			14861	471			117	787	
STD	2000	.95	34.715	27.84	30.74	.815	14861						
STD	2250	.77	34.715	27.85	29.02	.890	14895						
OBS	2251	.77	34.715	27.85			14895	483			117	787	
STD	2500	.60	34.711	27.86	28.35	.962	14930						
OBS	2503	.60	34.711	27.86			14930	492			128	785	
STD	2750	.54	34.703	27.86	27.96	1.032	14969						
OBS	2757	.54	34.703	27.86			14971	496			140	790	
OBS	2964	.47	34.701	27.86			15003	496			142	790	
STD	3000	.45	34.699	27.86	27.63	1.102	15008						
STD	3250	.30	34.684	27.86	26.52	1.169	15044						
OBS	3283	.28	34.682	27.86			15049	514			128	790	
STD	3500	.15	34.669	27.85	26.11	1.235	15080						
OBS	3527	.14	34.668	27.85			15084	538			105	784	
STD	3750	.03	34.672	27.86	23.37	1.297	15118						
OBS	3820	0.00	34.676	27.87			15129	549			105	784	9

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	155	7JUN1963	420	6110S	6149W	3811	522	11	16				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		265	5	-3.0	0.0	0	0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.70	33.945	27.31	77.82	0.000	14446						
OBS	2	-.70	33.945	27.31			14446	795	156		30	800	
STD	10	-.68	33.930	27.29	78.98	.008	14448						
STD	20	-.67	33.917	27.28	79.92	.016	14450						
OBS	23	-.67	33.915	27.28			14450	787	170		26	805	
STD	30	-.67	33.915	27.28	80.02	.024	14452						
OBS	48	-.68	33.921	27.29			14454	787	171		20	815	
STD	50	-.68	33.918	27.29	79.60	.040	14454						
OBS	71	-.68	33.912	27.28			14458	790	179		30	816	
STD	75	-.67	33.923	27.29	79.46	.060	14459						
OBS	94	-.46	34.005	27.35			14473	736	167		37	810	
STD	100	-.22	34.050	27.37	71.33	.078	14486						
OBS	137	1.33	34.317	27.50			14565	535	173		56	792	
STD	150	1.47	34.349	27.51	58.65	.111	14575						
OBS	188	1.49	34.380	27.54			14582	500	211		41	795	
STD	200	1.55	34.397	27.54	55.74	.140	14587						
STD	250	1.79	34.464	27.58	52.74	.167	14607						
OBS	283	1.94	34.504	27.60			14619	432	219		72	794	
STD	300	1.97	34.519	27.61	50.23	.192	14623						
OBS	365	2.01	34.564	27.64			14636	423	199		79	794	
STD	400	2.01	34.583	27.66	46.43	.241	14642						
STD	500	2.02	34.628	27.69	42.96	.285	14659						
OBS	569	2.02	34.650	27.71			14671	421	245		91		
STD	600	2.01	34.660	27.72	41.50	.328	14676						
STD	700	1.97	34.687	27.74	39.25	.368	14691						
OBS	761	1.94	34.700	27.76			14699	434	256		95	795	
STD	800	1.91	34.706	27.77	37.48	.406	14705						
STD	900	1.83	34.719	27.78	36.24	.443	14718						
OBS	957	1.79	34.723	27.79			14725	443	256		101	804	
STD	1000	1.77	34.726	27.79	35.68	.479	14732						
OBS	1073	1.74	34.728	27.80			14742	443	213		101	805	
STD	1250	1.55	34.725	27.81	33.81	.566	14763						
OBS	1310	1.47	34.723	27.81			14769	455	201		88	804	
STD	1500	1.32	34.722	27.82	32.81	.649	14794						
OBS	1554	1.28	34.722	27.82			14801	465	205		110	802	
STD	1750	1.14	34.724	27.84	31.14	.729	14828						
OBS	1803	1.11	34.725	27.84			14835	472	174		115	807	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	156	7JUN1963	2340	6001S	6509W	3366	522	5	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			355	6	.6	0.0	335	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.38	33.859	27.22	85.67	0.000	14460						
OBS	1	-.38	33.859	27.22			14460	798	164		49		
STD	10	-.38	33.845	27.21	86.74	.009	14461						
OBS	19	-.37	33.838	27.21			14463	796	167		46		
STD	20	-.37	33.838	27.21	87.17	.017	14463						
STD	30	-.36	33.843	27.21	86.77	.026	14465						
OBS	36	-.36	33.847	27.21			14466	791	170		42		
STD	50	-.36	33.836	27.21	87.25	.043	14468						
OBS	53	-.36	33.835	27.20			14469	798	173		46		
OBS	72	-.35	33.885	27.24			14473	792	149		46		
STD	75	-.31	33.893	27.25	83.24	.065	14476						
STD	100	.08	33.960	27.28	79.68	.085	14498						
OBS	113	.30	33.993	27.30			14511	753	172		46		
STD	150	.41	34.076	27.36	72.54	.123	14523						
OBS	157	.42	34.091	27.37			14525	718	205		90		
STD	200	1.00	34.195	27.42	67.16	.158	14560						
OBS	241	1.61	34.285	27.45			14594	544	214		103		
STD	250	1.67	34.299	27.46	64.17	.191	14599						
STD	300	1.90	34.366	27.49	61.23	.222	14618						
OBS	331	1.96	34.395	27.51			14626	473	195		100		
STD	400	2.08	34.427	27.53	58.80	.282	14643						
STD	500	2.16	34.455	27.54	57.21	.340	14663						
OBS	509	2.16	34.456	27.55			14665		245		112		
STD	600	2.21	34.526	27.60	53.39	.396	14683						
OBS	698	2.23	34.598	27.65			14700	418	252		132		
STD	700	2.23	34.599	27.65	48.23	.446	14701						
STD	800	2.18	34.630	27.68	45.72	.493	14715						
OBS	884	2.12	34.640	27.70			14727	415	224		136		
STD	900	2.11	34.638	27.69	44.90	.539	14729						
STD	1000	2.06	34.636	27.70	45.11	.584	14743						
OBS	1015	2.05	34.637	27.70			14745	419	210		138		
OBS	1133	1.99	34.695	27.75			14763	424	208		133		
STD	1250	1.89	34.714	27.77	38.12	.688	14778						
OBS	1332	1.81	34.717	27.78			14788	440	205		136		
STD	1500	1.71	34.734	27.80	36.05	.780	14812						
OBS	1570	1.67	34.738	27.81			14821	447	180		136		
STD	1750	1.51	34.725	27.81	35.02	.869	14844						
OBS	1816	1.45	34.719	27.81			14853	457	212		146		
STD	2000	1.35	34.715	27.81	35.24	.957	14879						
OBS	2056	1.32	34.715	27.82			14887	464	200		151		
STD	2250	1.21	34.719	27.83	33.80	1.043	14914						
OBS	2308	1.17	34.720	27.83			14923	475	206		167		
STD	2500	1.05	34.712	27.83	33.74	1.128	14950						
OBS	2552	1.02	34.709	27.83			14957	475	203		168		
STD	2750	.90	34.702	27.83	32.48	1.211	14985						
OBS	2821	.85	34.700	27.84			14995	493	212		160		
STD	3000	.72	34.693	27.84	31.51	1.291	15020						
OBS	3079	.67	34.693	27.84			15031	493	243		195		
OBS	3151	.65	34.697	27.85			15043	496	212		122		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	157	8JUN1963	1738	5827S	6205W	3204	486	82	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		335	6	1.4	0.0	345	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	.67	33.956	27.25	83.41	0.000	14509						
OBS	3	.67	33.956	27.25			14509	718	179		20		
STD	10	.67	33.942	27.24	84.48	.008	14510						
STD	20	.67	33.928	27.23	85.47	.017	14512						
OBS	23	.67	33.926	27.22			14512	778	173		24		
STD	30	.67	33.927	27.22	85.59	.025	14514						
OBS	49	.68	33.939	27.23			14517	772	160		22		
STD	50	.68	33.940	27.23	84.59	.042	14517						
OBS	65	.69	33.948	27.24			14520	772	167		55		
STD	75	.67	33.943	27.24	84.48	.064	14521						
OBS	88	.67	33.937	27.23			14522	767	165		53		
STD	100	.80	33.947	27.23	84.66	.085	14531						
OBS	130	1.19	33.995	27.25			14553	751	195		56		
STD	150	1.33	34.038	27.27	81.22	.126	14564						
OBS	172	1.44	34.086	27.30			14573	703	185		63		
STD	200	1.59	34.136	27.33	75.80	.165	14585						
STD	250	1.80	34.198	27.37	72.85	.203	14603						
OBS	260	1.83	34.206	27.37			14606	603	184		88		
STD	300	1.84	34.210	27.37	72.54	.239	14613						
OBS	353	1.83	34.206	27.37			14621	603	194		95		
STD	400	1.97	34.251	27.40	70.98	.311	14636						
STD	500	2.26	34.367	27.47	64.65	.379	14666						
OBS	531	2.35	34.408	27.49			14675	455	198		102		
STD	600	2.33	34.452	27.53	59.99	.441	14687						
STD	700	2.24	34.502	27.58	55.54	.499	14700						
OBS	714	2.22	34.508	27.58			14701	433	229		108		
STD	800	2.21	34.561	27.63	51.18	.552	14716						
OBS	897	2.21	34.609	27.66			14732	412	211		115		
STD	900	2.21	34.610	27.66	48.00	.602	14733						
OBS	967	2.20	34.624	27.68			14743	414	201		122		
STD	1000	2.18	34.627	27.68	47.07	.649	14748						
OBS	1065	2.14	34.637	27.69			14757	420	195		126		
OBS	1152	2.08	34.679	27.73			14769	424	230		127		
OBS	1238	2.05	34.682	27.73			14782	426	190		128		
STD	1250	2.04	34.683	27.74	42.00	.760	14784						
OBS	1384	1.92	34.702	27.76			14801	440	199		134		
STD	1500	1.79	34.713	27.78	38.44	.861	14815						
OBS	1531	1.75	34.715	27.78			14818	442	185		141		
OBS	1660	1.59	34.717	27.80			14832	448	199		149		
STD	1750	1.54	34.714	27.80	36.17	.954	14845						
OBS	1777	1.48	34.712	27.80			14847	453	208		147		
OBS	1806	1.34	34.709	27.81			14845	465	207		152		
OBS	1880	1.56	34.707	27.79			14868	476	212		158		1

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	158	9JUN1963	755	5722S	6058W	4040	486	71	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			340	7	3.5	0.0	330	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	4.55	34.207	27.12	95.67	0.000	14681						
OBS	2	4.55	34.207	27.12			14681	712	148		18	807	
STD	10	4.55	34.203	27.12	96.07	.010	14683						
STD	20	4.56	34.200	27.11	96.42	.019	14684						
OBS	26	4.56	34.199	27.11			14685	705	144		15	810	
STD	30	4.56	34.199	27.11	96.58	.029	14686						
OBS	49	4.56	34.200	27.11			14689	696	141		15	810	
STD	50	4.56	34.200	27.11	96.69	.048	14689						
OBS	72	4.57	34.198	27.11			14693	697	137		12	816	
STD	75	4.57	34.198	27.11	97.41	.072	14694						
OBS	94	0.00	34.196	0.00			0	704	123		12	809	
STD	100	4.57	34.196	27.11	97.53	.097	14698						
OBS	143	4.57	34.195	27.11			14702	705	144		12	812	
STD	150	4.56	34.195	27.11	97.91	.146	14705						
OBS	192	4.50	34.198	27.12			14707	695	133		11	811	
STD	200	4.49	34.198	27.12	97.43	.195	14711						
STD	250	4.41	34.196	27.13	97.27	.243	14715						
OBS	285	0.00	34.194	0.00			0	692	148		12	812	
STD	300	4.33	34.194	27.13	97.06	.292	14720						
OBS	383	4.18	34.194	27.15			14713	684	143		15	808	
STD	400	4.14	34.190	27.15	96.49	.389	14728						
STD	500	3.91	34.170	27.16	95.61	.485	14734						
OBS	576	3.71	34.163	27.17			14724	691	165		16	808	
STD	600	3.64	34.170	27.18	94.16	.579	14739						
STD	700	3.38	34.212	27.24	88.64	.671	14745						
OBS	775	3.20	34.257	27.30			14736	544	196		34	792	
STD	800	3.15	34.272	27.31	82.25	.756	14752						
STD	900	2.98	34.332	27.38	76.51	.836	14762						
OBS	966	2.88	34.373	27.42			14755	464	205		55	789	
STD	1000	2.84	34.393	27.44	71.29	.910	14773						
OBS	1225	2.61	34.508	27.55			14788	401	157		72	788	
STD	1250	2.58	34.519	27.56	60.04	1.074	14805						
OBS	1482	2.36	34.599	27.64			14821	402	168		78	788	
STD	1500	2.35	34.604	27.65	52.73	1.215	14837						
OBS	1738	2.19	34.654	27.70			14857	410	166		92	789	
STD	1750	2.18	34.657	27.70	47.77	1.340	14873						
OBS	1994	2.02	34.705	27.76			14893	423	219		88	785	
STD	2000	2.02	34.705	27.76	43.86	1.455	14908						
STD	2250	1.83	34.715	27.78	41.79	1.562	14942						
OBS	2254	1.83	34.715	27.78			14928	443	190		93		
STD	2500	1.66	34.725	27.80	40.48	1.665	14976						
OBS	2514	1.65	34.725	27.80			14964	452	182		104		
STD	2750	1.50	34.719	27.81	39.06	1.764	15012						
OBS	2776	1.48	34.718	27.81			15001	465	175		109	803	
STD	3000	1.37	34.714	27.81	38.75	1.861	15049						
OBS	3038	1.35	34.714	27.81			15040	470	180		110	799	
STD	3250	1.17	34.715	27.83	36.20	1.955	15083						
OBS	3320	1.10	34.716	27.83			15077	492	213		113	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	159	9JUN1963	2018	5711S	6300W	3753	486	73	19				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		350	6	4.3	0.0		0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	3.19	34.169	27.23			14623	717	157		22	811	
STD	0	3.19	34.169	27.23	85.47	0.000	14623						
STD	10	3.20	34.158	27.22	86.36	.009	14625						
OBS	19	3.20	34.152	27.21			14626	709	165		21	807	
STD	20	3.20	34.152	27.21	86.96	.017	14626						
STD	30	3.21	34.149	27.21	87.28	.026	14628						
OBS	38	3.21	34.148	27.21			14630	709	166		23	811	
STD	50	3.21	34.148	27.21	87.44	.043	14632						
OBS	57	3.21	34.149	27.21			14633	705	178		20	812	
STD	75	3.21	34.151	27.21	87.62	.065	14636						
OBS	77	3.21	34.151	27.21			14636	709	156		20	815	
OBS	98	3.16	34.147	27.21			14637		160		20		
STD	100	3.17	34.147	27.21	87.37	.087	14638						
OBS	115	3.21	34.148	27.21			14642	709	163		18	814	
STD	150	3.08	34.139	27.21	87.47	.131	14642						
OBS	153	3.06	34.138	27.21			14642	699	171		22	802	
STD	200	2.96	34.146	27.23	86.12	.174	14645						
STD	250	2.85	34.157	27.25	84.76	.217	14649						
STD	300	2.76	34.168	27.27	83.39	.259	14653						
STD	400	2.59	34.195	27.30	80.65	.341	14662						
STD	500	2.46	34.228	27.34	76.91	.420	14673						
STD	600	2.76	34.266	27.34	77.90	.497	14703						
STD	700	2.69	34.310	27.38	74.22	.573	14717						
STD	800	2.62	34.359	27.43	70.27	.646	14731						
STD	900	2.55	34.414	27.48	66.03	.714	14745						
STD	1000	2.48	34.474	27.53	61.52	.777	14759						
OBS	1124	2.40	34.556	27.61			14777	402	231		86	787	
STD	1250	2.33	34.593	27.64	51.76	.919	14795						
OBS	1379	2.26	34.622	27.67			14814	402	221		80	787	
STD	1500	2.19	34.628	27.68	49.17	1.045	14831						
OBS	1639	2.12	34.636	27.69			14851	410	176		102	783	
STD	1750	2.07	34.667	27.72	45.71	1.164	14868						
OBS	1892	2.00	34.706	27.76			14889	421	215		100	785	
STD	2000	1.92	34.712	27.77	42.19	1.274	14903						
OBS	2160	1.79	34.710	27.78			14925	423	139		114	785	
STD	2250	1.74	34.713	27.78	40.81	1.377	14938						
OBS	2447	1.65	34.719	27.80			14967	435	213		84	786	
STD	2500	1.62	34.719	27.80	40.34	1.479	14975						
OBS	2725	1.47	34.719	27.81			15007	450	199		121	781	
STD	2750	1.45	34.719	27.81	38.45	1.577	15010						
STD	3000	1.26	34.718	27.82	36.93	1.672	15044						
OBS	3009	1.25	34.718	27.82			15045	463	201		125	791	
STD	3250	1.10	34.711	27.83	35.47	1.762	15079						
OBS	3252	1.10	34.711	27.83			15080	468	183		123	787	
STD	3500	1.06	34.703	27.82	36.28	1.852	15120						
OBS	3524	1.05	34.703	27.82			15125	474	197		132	787	
OBS	3726	.91	34.707	27.84			15154	483	212		116	786	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 8	160	10JUN1963	626	5641S	6350W	4086	486	63	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			5	6	6.0	0.0	350	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	5.16	34.187	27.03	103.72	0.000	14706						
OBS	2	5.16	34.187	27.03			14706	701			3	806	
STD	10	5.13	34.175	27.03	104.39	.010	14706						
STD	20	5.10	34.165	27.02	104.87	.021	14706						
STD	30	5.07	34.161	27.02	104.95	.031	14707						
OBS	31	5.07	34.161	27.02			14707	691			3	807	
STD	50	5.03	34.174	27.04	103.73	.052	14708						
OBS	57	5.02	34.179	27.04			14709	688			3	808	
STD	75	5.01	34.174	27.04	103.95	.078	14712						
OBS	85	5.01	34.169	27.04			14713	690			3	805	
STD	100	5.01	34.165	27.04	104.54	.104	14715						
OBS	107	0.00	34.164	0.00			0	693			3	802	
STD	150	5.00	34.164	27.04	105.04	.157	14723						
OBS	160	5.00	34.167	27.04			14726	693			4	809	
STD	200	5.02	34.193	27.06	103.61	.209	14732						
OBS	211	5.02	34.201	27.06			14735	684			4	807	
STD	250	4.99	34.209	27.07	102.73	.260	14740						
STD	300	4.94	34.210	27.08	102.67	.312	14745						
OBS	315	0.00	34.211	0.00			0	674			5	800	
STD	400	4.74	34.221	27.11	100.85	.413	14754						
OBS	427	4.67	34.223	27.12			14765	655			9	801	
STD	500	4.46	34.212	27.13	98.67	.513	14758						
STD	600	4.15	34.199	27.16	97.54	.611	14761						
OBS	626	4.06	34.196	27.16			14772	628			14	800	
STD	700	3.86	34.209	27.19	94.05	.707	14765						
STD	800	3.58	34.242	27.25	89.18	.799	14770						
OBS	830	3.50	34.255	27.27			14782	537			47	793	
STD	900	3.28	34.292	27.32	82.83	.885	14775						
STD	1000	3.00	34.349	27.39	76.22	.964	14780						
OBS	1029	2.92	34.367	27.41			14792	463			29	789	
OBS	1067	2.84	34.387	27.43			14795	450			50	785	
STD	1250	2.71	34.466	27.51	65.33	1.141	14810						
OBS	1295	2.70	34.482	27.52			14828	417			62	782	
STD	1500	2.49	34.550	27.59	58.34	1.296	14843						
OBS	1522	2.47	34.556	27.60			14856	388			81		
OBS	1744	2.34	34.604	27.65			14888	382			78	784	
STD	1750	2.34	34.605	27.65	53.40	1.436	14879						
OBS	1988	2.21	34.647	27.69			14924	395			85	779	
STD	2000	2.20	34.650	27.70	50.21	1.565	14915						
OBS	2231	2.04	34.694	27.75			14958	409			85	781	
STD	2250	2.03	34.696	27.75	45.67	1.685	14950						
OBS	2482	1.90	34.706	27.77			14995	418			92	783	
STD	2500	1.89	34.707	27.77	44.78	1.798	14986						
OBS	2742	1.75	34.713	27.78			15032	435			101	785	
STD	2750	1.75	34.713	27.78	42.83	1.907	15022						
OBS	2971	1.65	34.721	27.80			15067	446			107	781	
STD	3000	1.64	34.721	27.80	42.05	2.014	15060						
OBS	3234	1.57	34.716	27.80			15108	452			104	780	
STD	3250	1.57	34.716	27.80	41.73	2.118	15100						
STD	3500	1.49	34.711	27.80	42.10	2.223	15139						
STD	3750	1.41	34.706	27.80	41.16	2.327	15179						
OBS	3768	1.16	34.713	27.83			15183	471			116	782	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	161	10JUN1963	1922	5548S	6514W	2952	486	55	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		15	5	6.0	0.0	5	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	5.03	34.169	27.04	103.64	0.000	14700						
OBS	3	5.03	34.169	27.04			14700	698	120		1	809	
STD	10	5.02	34.161	27.03	104.30	.010	14702						
STD	20	5.02	34.151	27.02	105.03	.021	14703						
STD	30	5.02	34.145	27.02	105.56	.031	14704						
OBS	31	5.02	34.145	27.02			14704	695	134		2	806	
STD	50	5.03	34.145	27.02	105.89	.053	14708						
OBS	58	5.04	34.147	27.02			14709	698	104		1	809	
STD	75	5.04	34.147	27.02	106.27	.079	14712						
OBS	88	5.03	34.147	27.02			14714	696	120		1	811	
STD	100	5.03	34.148	27.02	106.10	.106	14716						
OBS	116	5.03	34.151	27.02			14718	696	114		2	808	
STD	150	5.06	34.172	27.03	105.11	.158	14726						
OBS	175	5.06	34.189	27.05			14730	674	126		4	811	
STD	200	4.99	34.195	27.06	103.18	.210	14731						
OBS	235	4.87	34.199	27.08			14732	666	119		1	807	
STD	250	4.83	34.199	27.08	101.66	.262	14733						
STD	300	4.71	34.199	27.09	100.90	.312	14736						
OBS	363	4.57	34.199	27.11			14740	653	133		9	803	
STD	400	4.46	34.196	27.12	99.60	.413	14742						
OBS	486	4.22	34.189	27.14			14745	648	109		9	800	
STD	500	4.19	34.189	27.14	97.32	.511	14746						
STD	600	3.98	34.197	27.17	95.78	.608	14754						
STD	700	3.78	34.216	27.21	92.72	.702	14762						
OBS	710	3.76	34.218	27.21			14762	590	146		16	796	
STD	800	3.52	34.241	27.25	88.57	.792	14768						
STD	900	3.28	34.275	27.30	84.11	.879	14774						
OBS	914	3.25	34.280	27.31			14775	521	163		36	789	
STD	1000	3.15	34.319	27.35	80.16	.961	14786						
OBS	1021	3.12	34.329	27.36			14788	480	136		39	785	
OBS	1116	2.85	34.375	27.42			14792	457	199		79	793	
OBS	1165	2.86	34.390	27.43			14801	442	185		73	785	
STD	1250	2.75	34.435	27.48	68.05	1.146	14811						
OBS	1284	2.69	34.455	27.50			14814	419			72	777	
OBS	1402	2.58	34.504	27.55			14830	404			58	780	
STD	1500	2.54	34.527	27.57	60.54	1.307	14845						
OBS	1514	2.53	34.530	27.57			14846	396	188		53	776	
OBS	1633	2.42	34.574	27.62			14862	392	212		40	785	
OBS	1749	2.33	34.599	27.65			14878	387	161		95	782	
STD	1750	2.33	34.599	27.65	53.74	1.450	14878						
OBS	1997	2.22	34.653	27.70			14915	399	182		98	784	
STD	2000	2.22	34.653	27.70	50.15	1.580	14916						
STD	2250	2.07	34.673	27.73	47.80	1.702	14951						
OBS	2279	2.05	34.674	27.73			14955	408	187		90	785	
STD	2500	1.97	34.685	27.74	47.38	1.821	14989						
OBS	2545	1.95	34.687	27.75			14996	415	191		66		
STD	2750	1.84	34.701	27.77	45.01	1.937	15026						
OBS	2766	1.83	34.702	27.77			15028	431	192		77	787	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	162	11JUN1963	1830	5811S	6747W	3595	486	87	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			70	3	6.0	0.0	50	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.61	34.174	27.19	88.90	0.000	14641						
OBS	2	3.61	34.174	27.19			14641	704	133		57	819	
STD	10	3.62	34.172	27.19	89.18	.009	14643						
STD	20	3.63	34.170	27.19	89.44	.018	14645						
OBS	30	3.63	34.169	27.18			14646	705	155		60	823	
STD	30	3.63	34.169	27.18	89.62	.027	14647						
STD	50	3.62	34.169	27.19	89.64	.045	14649						
OBS	57	3.61	34.168	27.19			14650	703	136		70	822	
STD	75	3.59	34.160	27.18	90.40	.067	14652						
OBS	83	3.58	34.157	27.18			14653	705	170		60	831	
STD	100	3.55	34.156	27.18	90.26	.090	14655						
OBS	109	3.54	34.157	27.18			14655	698	152		95	830	
STD	150	3.47	34.155	27.19	89.93	.135	14659						
OBS	165	3.44	34.153	27.19			14660	702	175		104	817	
STD	200	3.34	34.146	27.19	89.68	.180	14661						
OBS	221	3.28	34.143	27.20			14662	707	176		105		
STD	250	3.21	34.144	27.21	89.00	.224	14664						
STD	300	3.09	34.149	27.22	87.92	.269	14667						
OBS	326	3.04	34.154	27.23			14669		157		116	802	
STD	400	2.90	34.167	27.25	85.55	.355	14675						
OBS	436	2.82	34.175	27.27			14677	626	154			802	
STD	500	2.55	34.183	27.29	81.12	.439	14676						
STD	600	2.21	34.209	27.34	77.04	.518	14678						
OBS	647	2.08	34.227	27.37			14680	592	203		117	792	
STD	700	2.19	34.271	27.40	72.33	.593	14695						
STD	800	2.44	34.361	27.45	68.34	.663	14723						
OBS	855	2.61	34.415	27.47			14740	445	215		123	791	
STD	900	2.60	34.449	27.50	63.92	.729	14748						
STD	1000	2.53	34.514	27.56	59.00	.790	14762						
OBS	1049	2.46	34.540	27.59			14767	410	188		126	798	
STD	1250	2.32	34.598	27.65	51.23	.928	14795						
OBS	1278	2.30	34.604	27.65			14799	403	173		130	790	
STD	1500	2.21	34.674	27.72	45.97	1.050	14832						
OBS	1519	2.20	34.679	27.72			14835	412	163		117	788	
STD	1750	2.06	34.699	27.75	43.24	1.161	14868						
OBS	1761	2.05	34.699	27.75			14869	424	184		116	786	
OBS	2000	1.88	34.718	27.78			14902	432	167		104	791	
STD	2000	1.88	34.718	27.78	41.30	1.267	14902						
OBS	2246	1.68	34.731	27.80			14935	444	226		122	793	
STD	2250	1.68	34.731	27.80	38.66	1.367	14935						
OBS	2493	1.53	34.741	27.82			14970	448	167		128	782	
STD	2500	1.53	34.741	27.82	37.57	1.462	14971						
OBS	2736	1.35	34.733	27.83			15003	456	168		128	786	
STD	2750	1.34	34.732	27.83	36.09	1.554	15005						
OBS	2981	1.17	34.713	27.82			15037		198		121	775	
STD	3000	1.15	34.714	27.83	35.87	1.644	15039						
OBS	3232	.98	34.721	27.84			15071	483	152		122	788	
STD	3250	.97	34.719	27.84	33.04	1.730	15074						
OBS	3478	.86	34.705	27.84			15108	480	155		124	787	
STD	3500	.85	34.706	27.84	33.20	1.813	15112						
OBS	3571	.84	34.713	27.85			15124	486	146		127	775	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 8	163	12JUN1963	345	5900S	6801W	3639	486	98	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			50	4	4.3	0.0	70	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	.49	33.909	27.22	86.00	0.000	14500						
OBS	2	.49	33.909	27.22			14500	785	121		58	805	
STD	10	.52	33.908	27.22	86.20	.009	14503						
STD	20	.57	33.906	27.21	86.58	.017	14507						
OBS	30	.65	33.905	27.21			14512	773	122		59	804	
STD	30	.65	33.905	27.21	87.10	.026	14512						
STD	50	.90	33.951	27.23	85.07	.043	14528						
OBS	57	.99	33.968	27.24			14532	763	140		58	808	
STD	75	1.08	33.982	27.24	84.00	.064	14540						
OBS	83	1.10	33.985	27.25			14542	750	126		64	806	
STD	100	1.15	33.994	27.25	83.23	.085	14547						
OBS	109	1.17	34.000	27.25			14549	749	150		65	807	
STD	150	1.40	34.043	27.27	81.32	.126	14567						
OBS	165	1.48	34.062	27.28			14573	709	153		69	804	
STD	200	1.49	34.108	27.32	77.19	.166	14580						
OBS	221	1.46	34.132	27.34			14582	671	156		91	800	
STD	250	1.33	34.141	27.35	73.64	.204	14582						
STD	300	1.16	34.154	27.38	71.63	.240	14582						
OBS	326	1.11	34.160	27.39			14584	647	159		99	801	
STD	400	1.63	34.259	27.43	67.72	.310	14621						
OBS	436	1.95	34.313	27.45			14641	520	187		111	790	
STD	500	2.13	34.368	27.48	63.40	.375	14661						
STD	600	2.14	34.433	27.53	59.58	.437	14678						
OBS	647	2.19	34.455	27.54			14688	435	188		117	787	
STD	700	2.22	34.486	27.56	56.56	.495	14699						
STD	800	2.25	34.538	27.60	53.27	.550	14717						
OBS	855	2.25	34.563	27.62			14726	406	202		120	784	
STD	900	2.24	34.580	27.64	50.55	.602	14734						
STD	1000	2.22	34.613	27.67	48.44	.651	14750						
OBS	1049	2.20	34.627	27.68			14757	407	199		141	783	
OBS	1242	2.12	34.673	27.72			14786	415	201		141		
STD	1250	2.11	34.674	27.72	43.45	.766	14787						
STD	1500	1.93	34.698	27.76	41.16	.872	14821						
OBS	1505	1.93	34.698	27.76			14821	423	152		127	785	
STD	1750	1.80	34.717	27.78	38.93	.972	14857						
OBS	1768	1.79	34.718	27.78			14859	446	125		126	785	
STD	2000	1.60	34.724	27.80	37.50	1.067	14890						
OBS	2032	1.57	34.724	27.81			14894	448	130		122	786	
STD	2250	1.42	34.719	27.81	36.37	1.160	14924						
OBS	2297	1.39	34.718	27.81			14930	460			120	785	
STD	2500	1.25	34.716	27.82	35.93	1.250	14959						
OBS	2560	1.21	34.715	27.82			14967	471	172		118	784	
STD	2750	1.09	34.712	27.83	34.26	1.338	14994						
OBS	2823	1.05	34.711	27.83			15004	477	184		124		
STD	3000	.97	34.708	27.83	33.78	1.423	15031						
OBS	3086	.93	34.707	27.84			15044	478	170		126	784	
STD	3250	.81	34.703	27.84	32.00	1.505	15067						
OBS	3370	.73	34.703	27.85			15084	489	190		124	788	
STD	3500	.71	34.718	27.86	30.29	1.583	15105						
OBS	3615	.71	34.723	27.86			15126	501	185		122	783	
OBS	3720	.71	34.703	27.85			15144	490	190		124	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	164	12AUG1963	2235	4948S	4003W	2835	448	90	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			320	3	3.2	0.0	290	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	1.50	34.090	27.30	78.33	0.000	14548						
OBS	2	1.50	34.090	27.30			14548	775	137	330	23	782	
STD	10	1.51	34.088	27.30	78.59	.008	14550						
STD	20	1.52	34.077	27.29	79.42	.016	14552						
OBS	25	1.52	34.069	27.28			14552	781	116	360	18	784	
STD	30	1.52	34.052	27.27	81.33	.024	14553						
STD	50	1.51	33.994	27.22	85.73	.040	14555						
OBS	53	1.51	33.986	27.22			14555	775	103	279	26	787	
STD	75	1.50	34.006	27.24	84.94	.062	14559						
OBS	78	1.50	34.011	27.24			14559	775	119	348	27	789	
STD	100	1.49	34.002	27.23	84.97	.083	14562						
OBS	103	1.49	34.001	27.23			14563	774	108	261	19	794	
STD	150	1.74	34.115	27.30	78.32	.124	14583						
OBS	155	1.77	34.132	27.32			14585	669	127	434	23	779	
STD	200	1.69	34.244	27.41	68.37	.161	14591						
OBS	201	1.69	34.246	27.41			14591	622	126	412	45	778	
STD	250	1.69	34.319	27.47	62.89	.193	14600						
STD	300	1.70	34.363	27.51	59.85	.224	14609						
OBS	308	1.70	34.367	27.51			14610	512	152	461	45	774	
OBS	397	2.06	34.406	27.51			14641	483	116	461	47	768	
STD	400	2.07	34.408	27.51	60.06	.284	14642						
STD	500	2.26	34.483	27.56	55.97	.342	14668						
STD	600	2.29	34.564	27.62	51.18	.396	14686						
OBS	613	2.30	34.575	27.63			14689	404	135	470	65	765	
STD	700	2.25	34.636	27.68	45.65	.444	14702						
STD	800	2.14	34.687	27.73	41.18	.487	14715						
OBS	811	2.13	34.691	27.74			14716	417	132	341	90	777	
STD	900	2.05	34.695	27.74	40.16	.528	14727						
STD	1000	1.98	34.687	27.74	40.52	.568	14740						
OBS	1009	1.97	34.686	27.74			14741	424	159	471	62	798	7
OBS	1228	1.87	34.711	27.77			14773	433	167	399	101	791	
STD	1250	1.85	34.710	27.77	37.98	.667	14776						
OBS	1382	1.73	34.820	27.87			14794	434	146	450		790	2
OBS	1486	1.71	34.704	27.78			14808	441	153	352	107	787	
STD	1500	1.70	34.705	27.78	38.01	.762	14810						
OBS	1612	1.81	34.715	27.78			14834	468	175	459	102	787	1
OBS	1736	1.40	34.713	27.81			14836	456	186	407	112	792	
STD	1750	1.39	34.712	27.81	34.63	.852	14838						
OBS	1863	1.30	34.782	27.87			14854	463	166	432	103	788	2
OBS	1988	1.24	34.711	27.82			14871	466	129	430	71	790	7
STD	2000	1.23	34.712	27.82	34.15	.938	14873						
OBS	2113	1.14	34.721	27.83			14888	473	149	459	121	789	
OBS	2239	.94	34.757	27.88			14901	480	174	282	109	787	2
STD	2250	.93	34.716	27.84	30.80	1.020	14902						
OBS	2497	.80	34.694	27.83			14937	492	137	459	94	786	7
STD	2500	.80	34.694	27.83	31.95	1.098	14938						
STD	2750	.62	34.680	27.83	30.62	1.176	14972						
OBS	2752	.62	34.680	27.83			14973	499	121	434	124	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	165	14AUG1963	145	4659S	3959W	5373	447	69	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		305	6	6.8	0.0	290	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	5.89	34.221	26.97	109.56	0.000	14736						
OBS	2	5.89	34.221	26.97			14736	705	103	166	7	809	
STD	10	5.89	34.218	26.97	109.85	.011	14738						
STD	20	5.89	34.216	26.97	110.11	.022	14739						
OBS	23	5.89	34.216	26.97			14739	693	123	206	5	811	
STD	30	5.91	34.216	26.97	110.40	.033	14741						
OBS	45	5.94	34.217	26.96			14745	701	100		6	818	
STD	50	5.94	34.217	26.96	110.98	.055	14746						
OBS	67	5.95	0.000	0.00			0						
STD	75	5.97	34.222	26.96	111.48	.083	14751						
OBS	89	6.00	34.226	26.96			14749	700	109	216	7	825	
STD	100	6.08	34.238	26.96	111.74	.111	14760						
OBS	133	6.02	34.248	26.98			14757	702	119	212	3	817	
STD	150	5.48	34.201	27.01	107.76	.166	14743						
OBS	177	4.46	34.118	27.06			14699	678	117	252	8	813	
STD	200	3.94	34.103	27.10	98.85	.217	14686						
STD	250	3.20	34.117	27.19	90.88	.265	14663						
OBS	265	3.07	34.134	27.21			14654	639	136	250	21	815	
STD	300	2.79	34.152	27.25	84.89	.309	14654						
OBS	355	2.52	34.183	27.30			14646	637	107	347	29	812	
STD	400	2.34	34.193	27.32	78.56	.390	14651						
STD	500	2.13	34.220	27.36	74.56	.467	14659						
OBS	540	2.12	34.232	27.37			14659	562	157	398	44	801	
STD	600	2.23	34.277	27.40	72.20	.540	14680						
STD	700	2.46	34.363	27.45	68.11	.611	14708						
OBS	736	2.56	34.397	27.46			14712	449	160	444	58	802	
STD	800	2.59	34.465	27.52	62.02	.676	14731						
STD	900	2.55	34.532	27.57	57.26	.735	14746						
OBS	903	2.55	34.533	27.57			14741	417	139	480	72	796	
OBS	952	2.52	34.522	27.57			14748	424	128	461	69	795	
STD	1000	2.52	34.531	27.58	57.66	.793	14762						
OBS	1185	2.59	34.610	27.63			14790	425	167	437	76	791	
STD	1250	2.59	34.631	27.65	51.78	.930	14807						
OBS	1464	2.58	34.694	27.70			14837	443	177	432	74	798	
STD	1500	2.59	34.704	27.71	48.10	1.054	14849						
OBS	1742	2.62	34.760	27.75			14886	481	147	391	64	794	
STD	1750	2.62	34.761	27.75	45.42	1.171	14893						
STD	2000	2.54	34.780	27.77	45.03	1.284	14931						
OBS	2007	2.54	34.780	27.77			14927	493	145	296	61	803	
STD	2250	2.42	34.785	27.79	44.24	1.396	14968						
OBS	2278	2.40	34.785	27.79			14966	502	158	368	70	797	
STD	2500	2.10	34.770	27.80	43.06	1.505	14996						
STD	2750	1.73	34.749	27.81	40.07	1.609	15022						
OBS	2818	1.62	34.742	27.82			15023	475	161	444	95	793	
STD	3000	1.43	34.737	27.83	37.96	1.706	15051						
STD	3250	1.19	34.730	27.84	35.43	1.798	15083						
OBS	3373	1.09	34.727	27.84			15094	487	170	425	119	791	
STD	3500	.97	34.719	27.84	33.91	1.885	15116						
STD	3750	.74	34.704	27.84	31.32	1.966	15149						
OBS	3946	.58	34.691	27.84			15171	498	132	450	128	791	
STD	4000	.53	34.688	27.84	29.52	2.042	15183						
STD	4500	.23	34.672	27.85	26.42	2.182	15257						
OBS	4525	.22	34.671	27.85			15256	522	123	368	130	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	166	16AUG1963	1000	4838S	3811W	5406	447	88	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		150	4	1.5	0.0	210	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\epsilon \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	5.93	34.382	27.09	97.99	0.000	14740						
OBS	2	5.93	34.382	27.09			14740	711	138	203	21		
STD	10	5.92	34.384	27.10	97.84	.010	14741						
STD	20	5.92	34.386	27.10	97.80	.020	14743						
OBS	27	5.92	34.387	27.10			14744	683	119	256	25	788	
STD	30	5.92	34.387	27.10	97.86	.029	14744						
OBS	50	5.94	34.386	27.10			14748	684	147	171	22	793	
STD	50	5.94	34.386	27.10	98.35	.049	14748						
STD	75	4.68	34.252	27.14	94.56	.073	14699						
OBS	76	4.63	34.246	27.14			14697	680	148	295	24	775	
STD	100	4.45	34.211	27.13	95.06	.097	14693						
OBS	101	4.45	34.211	27.13			14693	669	164	228	37	781	7
OBS	148	3.94	34.184	27.17			14679	693	157	311	15	781	
STD	150	3.93	34.183	27.17	92.25	.144	14679						
OBS	197	3.76	34.174	27.18			14679	713	088	250	29	783	
STD	200	3.75	34.175	27.18	91.52	.190	14679						
STD	250	3.58	34.189	27.21	89.24	.235	14680						
OBS	294	0.00	34.207	0.00			0	628	107	250	60	789	
STD	300	3.42	34.208	27.24	86.65	.279	14682						
OBS	393	3.16	34.227	27.28			14675	594	141	272	55	790	
STD	400	3.14	34.229	27.28	83.27	.364	14686						
STD	500	2.87	34.263	27.33	78.17	.444	14691						
OBS	588	2.69	34.306	27.38			14687	547	153	394	73	788	
STD	600	2.68	34.315	27.39	73.53	.520	14700						
STD	700	2.60	34.390	27.46	67.43	.591	14714						
OBS	778	2.58	34.452	27.51			14715	466	164	312	97	791	
STD	800	2.58	34.468	27.52	61.71	.655	14730						
STD	900	2.58	34.537	27.58	57.14	.715	14748						
STD	1000	2.58	34.596	27.62	53.41	.770	14765						
STD	1250	2.57	34.703	27.71	46.31	.895	14807						
OBS	1354	2.57	34.730	27.73			14813	430	161	327	108	800	
STD	1500	2.51	34.734	27.74	45.01	1.009	14846						
OBS	1593	2.48	34.735	27.74			14849	449	186	323	91	798	
STD	1750	2.48	34.765	27.77	43.42	1.119	14887						
OBS	1826	2.48	34.779	27.78			14888	471	195	375	117	780	
STD	2000	2.41	34.776	27.78	43.52	1.228	14925						
OBS	2056	2.37	34.773	27.78			14922	484	177	346		783	
STD	2250	2.22	34.774	27.79	42.51	1.336	14959						
OBS	2317	2.16	34.774	27.80			14956	493	169	308	122	787	
STD	2500	1.94	34.769	27.81	40.93	1.440	14989						
OBS	2575	1.84	34.766	27.82			14986	492	159	385		787	
STD	2750	1.62	34.754	27.83	38.23	1.539	15017						
STD	3000	1.34	34.739	27.83	36.52	1.632	15047						
OBS	3088	1.24	34.529	27.67			15044	484	154	360	133	789	2
STD	3250	1.08	34.724	27.84	34.26	1.721	15078						
STD	3500	.86	34.711	27.84	32.96	1.805	15111						
OBS	3614	.77	34.592	27.75			15114	500	161	282	143	789	2
STD	3750	.66	34.699	27.85	30.41	1.884	15145						
STD	4000	.48	34.688	27.85	28.72	1.958	15181						
OBS	4145	.39	34.602	27.78			15190	514	166	450	142	786	2
STD	4500	.26	34.669	27.85	27.08	2.097	15258						
OBS	4677	.22	34.663	27.84			15276	508	188	365	103	789	7
STD	5000	.15	34.667	27.85	25.49	2.229	15341						
OBS	5466	.09	34.682	27.87			15411	548	174	494	122	786	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	167	17AUG1963	1158	5000S	3655W	5069	483	6	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	08	.8	0.0	290	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.37	33.926	27.18	89.93	0.000	14540						
OBS	2	1.37	33.926	27.18			14540	782		296	19	833	
STD	10	1.37	33.926	27.18	89.89	.009	14542						
STD	20	1.37	33.927	27.18	89.86	.018	14543						
OBS	26	1.37	33.927	27.18			14544	779		330	20	835	
STD	30	1.37	33.925	27.18	89.99	.027	14545						
STD	50	1.38	33.917	27.17	90.62	.045	14548						
OBS	51	1.38	33.917	27.17			14549	776		313	18	838	
STD	75	1.37	33.925	27.18	90.21	.068	14552						
OBS	76	1.37	33.926	27.18			14552	790		351	24	834	
OBS	100	1.34	33.948	27.20			14555	776		280	24	834	
STD	100	1.34	33.948	27.20	88.04	.090	14555						
STD	150	1.18	34.144	27.37	72.18	.130	14559						
OBS	156	1.17	34.171	27.39			14560	636		409	42	829	
STD	200	1.38	34.278	27.46	63.51	.164	14578						
OBS	201	1.39	34.280	27.46			14578	566		393		829	
STD	250	1.64	34.359	27.51	59.43	.195	14598						
STD	300	1.87	34.419	27.54	56.97	.224	14618						
OBS	302	1.88	34.421	27.54			14618	464		424	74	832	
STD	400	2.14	34.526	27.60	51.85	.278	14647						
OBS	403	2.15	34.529	27.60			14648	422		476	74	818	
STD	500	2.12	34.593	27.66	46.43	.327	14663						
STD	600	2.10	34.635	27.69	44.15	.373	14679						
OBS	612	2.08	34.638	27.70			14680	410		433	98	819	
STD	700	2.03	34.661	27.72	41.73	.416	14693						
STD	800	1.97	34.677	27.74	40.18	.456	14707						
OBS	824	1.95	34.680	27.74			14710	417		452	98	817	
STD	900	1.93	34.689	27.75	39.34	.496	14721						
OBS	983	1.87	34.701	27.76			14733	425		458	102	819	
STD	1000	1.85	34.705	27.77	37.89	.535	14735						
OBS	1037	1.79	34.714	27.78			14738	429		395	105	818	
STD	1250	1.67	34.716	27.79	35.77	.627	14768						
OBS	1262	1.67	34.715	27.79			14770	444		375	107	810	
STD	1500	1.52	34.730	27.81	34.27	.714	14803						
OBS	1537	1.49	34.732	27.82			14808	464		447	117	812	
STD	1750	1.34	34.723	27.82	33.30	.799	14836						
OBS	1814	1.29	34.717	27.82			14845	474		400	113	805	
STD	2000	1.12	34.688	27.81	34.67	.884	14868						
OBS	2086	1.04	34.669	27.80			14879	479		423	87	805	
STD	2250	.87	0.000	0.00	0.00	0.000	0						
OBS	2367	.77	34.605	27.76			14913	486		413	134	806	2
STD	2500	.67	0.000	0.00	0.00	0.000	0						
STD	2750	.53	0.000	0.00	0.00	0.000	0						
OBS	2918	.46	0.000	0.00			0	504		462	136	808	
STD	3000	.41	0.000	0.00	0.00	0.000	0						
STD	3250	.30	0.000	0.00	0.00	0.000	0						
OBS	3465	.21	34.585	27.78			15077	519		409	141	808	2
STD	3500	.19	0.000	0.00	0.00	0.000	0						
STD	3750	.07	0.000	0.00	0.00	0.000	0						
STD	4000	-.03	0.000	0.00	0.00	0.000	0						
OBS	4004	0.00	0.000	0.00			0	535		458	149	805	9

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	168	18AUG1963	15	4847S	3600W	5254	447	86	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		235	07	0.0	0.0	230	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.84	33.981	27.19	88.95	0.000	14562						
OBS	4	1.84	33.981	27.19			14562	774	224	255	10	824	
STD	10	1.84	33.980	27.19	89.03	.009	14563						
STD	20	1.84	33.980	27.19	89.00	.018	14565						
OBS	30	1.84	33.977	27.19			14566	771	182	302	14	834	
STD	30	1.84	33.977	27.19	89.27	.027	14566						
STD	50	1.82	33.962	27.18	90.26	.045	14568						
OBS	57	1.81	33.956	27.17			14569	769	212	273	16	830	
STD	75	1.82	33.945	27.16	91.83	.067	14572						
OBS	84	1.82	33.941	27.16			14574	771	221	299	14	832	
STD	100	1.78	33.936	27.16	92.06	.090	14575						
OBS	112	1.72	33.932	27.16			14574	772	214	258	15	832	
STD	150	1.15	33.905	27.18	90.12	.136	14554						
OBS	167	.88	33.894	27.19			14545	781	205	310	17	830	
STD	200	.66	33.897	27.20	87.61	.180	14540						
OBS	222	.62	33.903	27.21			14542	771	223	279	13	828	
STD	250	.81	33.908	27.20	87.75	.224	14555						
STD	300	1.27	33.908	27.17	90.94	.269	14584						
OBS	330	1.61	33.922	27.16			14604	777	210	311	19	810	
STD	400	1.87	34.034	27.23	86.57	.358	14628						
OBS	438	1.94	34.110	27.29			14639	600	228	331	39	807	
STD	500	2.05	34.245	27.39	71.96	.437	14656						
STD	600	2.16	34.432	27.53	59.90	.503	14679						
OBS	653	2.18	34.515	27.59			14690	417	237		71	801	
STD	700	2.18	34.515	27.59	53.99	.560	14697						
STD	800	2.15	34.516	27.59	53.98	.614	14713						
OBS	866	2.12	34.517	27.60			14722	410	233	376	82	796	
STD	900	2.11	34.527	27.61	53.16	.667	14727						
STD	1000	2.07	34.561	27.64	50.82	.719	14742						
OBS	1088	0.00	34.597	0.00			0	408	218	393	91	798	
STD	1250	1.98	34.653	27.72	43.56	.837	14781						
STD	1500	1.88	34.725	27.78	38.64	.940	14819						
OBS	1538	1.87	34.734	27.79			14827	457	217	260	89	804	
STD	1750	1.82	34.766	27.82	35.57	1.033	14858						
OBS	1773	1.81	34.668	27.74			14862	473	235	355	83	802	2
STD	2000	1.59	34.786	27.85	32.80	1.118	14890						
OBS	2008	1.88	34.680	27.75			14905	477	206	380	95	799	3
OBS	2240	1.29	34.789	27.88			14919	473	180	378	114	799	
STD	2250	1.28	34.789	27.88	29.61	1.196	14918						
OBS	2465	1.07	34.746	27.86			14947	482	196	332	100	800	2
STD	2500	1.04	34.784	27.89	28.34	1.269	14950						
OBS	2700	.86	34.775	27.89			14978	493	175	390	117	796	
STD	2750	.82	34.773	27.90	26.43	1.337	14982						
STD	3000	.64	34.762	27.90	25.53	1.402	15017						
OBS	3168	.53	34.756	27.90			15043	507	202	355	124	794	
STD	3250	.47	34.756	27.90	23.69	1.464	15052						
STD	3500	.32	34.753	27.91	22.36	1.521	15088						
OBS	3636	.25	34.751	27.91			15111	523	237	374	134	795	
STD	3750	.21	34.745	27.91	20.75	1.575	15127						
STD	4000	.16	34.728	27.90	21.20	1.628	15167						
OBS	4103	.15	34.719	27.89			15188	531	161	392	123	795	
STD	4500	.06	34.683	27.87	23.03	1.738	15250						
OBS	4582	0.00	34.674	0.00			0	527		397	115	793	
STD	5000	-.04	0.000	0.00	0.00	0.000	0						
OBS	5272	.13	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	169	18AUG1963	1530	4656S	3605W	5839	447	66	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			180	5	5.5	0.0	220	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	7.67	34.557	27.00	107.42	0.000	14811						
OBS	2	7.67	34.557	27.00			14811	640	214		5	824	
STD	10	7.66	34.545	26.99	108.29	.011	14812						
STD	20	7.65	34.537	26.98	108.94	.022	14813						
OBS	22	7.65	34.536	26.98			14813	645	209		7	843	
STD	30	7.65	34.538	26.98	109.06	.033	14815						
OBS	43	7.66	34.545	26.99			14817	660	187		14	844	
STD	50	7.65	34.547	26.99	108.62	.054	14818						
OBS	66	7.63	34.551	27.00			14819	661	202		22	845	
STD	75	7.64	34.555	27.00	108.55	.081	14822						
OBS	87	7.66	34.559	27.00			14824	664	210		16	844	
STD	100	7.65	34.559	27.00	108.53	.109	14826						
OBS	129	7.62	34.554	27.00			14829	640	192		29	844	
STD	150	7.64	34.553	27.00	109.53	.163	14834						
OBS	172	7.63	34.551	27.00			14837	646	244		23	842	
STD	200	7.30	34.552	27.04	105.79	.217	14829						
STD	250	6.63	34.511	27.11	100.41	.268	14810						
OBS	260	0.00	34.497	0.00			0	634	182		63	834	
STD	300	5.83	34.356	27.09	102.46	.319	14784						
OBS	348	4.96	34.179	27.05			14728	611	234		73	836	
STD	400	4.50	34.131	27.06	104.81	.423	14742						
STD	500	3.85	34.139	27.14	97.35	.524	14731						
OBS	537	3.69	34.176	27.18			14705	622	207		67	835	
STD	600	3.42	34.179	27.21	91.12	.618	14730						
STD	700	3.09	34.192	27.25	87.12	.707	14732						
OBS	733	3.01	34.198	27.27			14708	571	222		72	830	
STD	800	2.78	34.206	27.29	83.30	.792	14735						
STD	900	2.43	34.217	27.33	79.44	.874	14737						
OBS	939	2.65	34.277	27.36			14728	510	229		80	826	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	170	19AUG1963	301	4650S	3505W	5614	447	65	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	7	4.8	0.0	235	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	6.28	34.395	27.06	101.28	0.000	14754						
OBS	3	6.28	34.395	27.06			14754	682	188		10	848	
STD	10	6.28	34.387	27.05	101.99	.010	14756						
STD	20	6.28	34.376	27.04	102.95	.020	14757						
OBS	25	6.28	34.370	27.04			14757	676	229		14	849	
STD	30	6.28	34.365	27.04	103.84	.031	14758						
OBS	48	6.28	34.345	27.02			14761	675	196		16	848	
STD	50	6.28	34.341	27.02	105.88	.052	14761						
OBS	71	6.29	34.303	26.99			14764	671	215		20	850	
STD	75	6.29	34.298	26.98	109.79	.079	14765						
OBS	93	6.29	34.282	26.97			14767	673	203		12	852	
STD	100	6.27	34.279	26.97	110.97	.106	14768						
OBS	142	6.18	34.282	26.98			14771	676	202		29	850	
STD	150	6.22	34.287	26.98	110.42	.162	14774						
OBS	183	6.30	34.296	26.98			14782	676	231		46	847	
STD	200	6.02	34.264	26.99	110.35	.217	14774						
STD	250	5.04	34.160	27.03	106.92	.271	14741						
OBS	272	4.53	34.111	27.05			14722	630	215		38	845	
STD	300	4.28	34.110	27.07	102.76	.324	14717						
OBS	362	3.94	34.143	27.13			14712	631	211		60	844	
STD	400	3.74	34.150	27.16	95.15	.423	14711						
STD	500	3.29	34.166	27.22	89.50	.515	14708						
OBS	549	0.00	34.172	0.00			0	617	174		76	845	
STD	600	2.95	34.180	27.26	86.29	.603	14710						
STD	700	2.73	34.202	27.29	82.70	.687	14717						
OBS	743	2.67	34.214	27.31			14693	549	207		76	838	
STD	800	2.59	34.235	27.33	79.20	.768	14728						
STD	900	2.56	34.285	27.37	75.73	.846	14744						
OBS	948	2.53	34.314	27.40			14721	478	209		102	833	
STD	1000	2.56	34.352	27.43	71.41	.919	14761						
OBS	1010	2.57	34.359	27.43			14734	462	215		105	832	
STD	1250	2.52	34.533	27.58	58.27	1.081	14802						
OBS	1291	2.50	34.560	27.60			14780	416	216		111	831	
STD	1500	2.57	34.669	27.68	50.50	1.217	14848						
OBS	1571	2.60	34.699	27.70			14832	435	215		87	828	
STD	1750	2.63	34.763	27.75	45.39	1.337	14893						
OBS	1848	2.63	34.790	27.77			14881	468	203		93	832	
STD	2000	2.59	34.812	27.79	43.28	1.448	14934						
STD	2250	2.44	34.809	27.80	42.85	1.556	14969						
OBS	2400	2.31	34.816	27.82			14959	494	196		125	828	
STD	2500	2.18	34.806	27.82	41.42	1.661	15000						
STD	2750	1.83	34.778	27.83	39.33	1.762	15027						
OBS	2950	1.54	34.752	27.83			15018	477	202		132	827	
STD	3000	1.48	34.748	27.83	37.90	1.858	15054						
STD	3250	1.22	34.732	27.84	35.68	1.950	15085						
STD	3500	.99	34.723	27.84	33.98	2.038	15117						
OBS	3503	.99	34.723	27.84			15088	488	219		139	826	
STD	3750	.75	34.723	27.86	30.10	2.118	15150						
STD	4000	.54	34.722	27.87	27.17	2.189	15184						
OBS	4049	.50	34.722	27.87			15161	515	211		124	826	
STD	4500	.25	34.690	27.86	25.48	2.321	15258						
OBS	4602	.22	34.682	27.86			15245	530	202		102	824	
STD	5000	.21	34.674	27.85	25.95	2.449	15344						
OBS	5139	.21	34.673	27.85			15339	536	203		116	824	
STD	5500	.11	34.662	27.85	25.07	2.577	15428						
OBS	5690	.03	34.654	27.85			15429	555	204		110	823	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 9	171	19AUG1963	1815	4706S	3456W	5594	447	74	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
260	6	4.0	0.0	240	5

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	6.41	34.387	27.04	103.49	0.000	14759						
OBS	2	6.41	34.387	27.04			14759						
STD	10	6.41	34.368	27.02	105.06	.010	14761						
STD	20	6.42	34.348	27.01	106.73	.021	14762						
OBS	24	6.42	34.341	27.00			14762						
STD	30	6.42	34.331	26.99	108.11	.032	14764						
OBS	49	6.42	34.309	26.97			14766						
STD	50	6.42	34.308	26.97	110.09	.054	14767						
OBS	72	6.42	34.297	26.96			14770						
STD	75	6.42	34.297	26.96	111.51	.081	14770						
OBS	95	6.43	34.306	26.97			14774						
STD	100	6.43	34.313	26.98	110.41	.109	14775						
OBS	121	6.41	34.345	27.00			14778						
OBS	147	6.41	34.359	27.01			14782						
STD	150	6.42	34.357	27.01	107.65	.164	14783						
OBS	189	6.35	34.310	26.98			14786						
STD	200	6.14	34.282	26.99	110.41	.218	14779						
STD	250	5.08	34.167	27.03	106.90	.272	14743						
OBS	281	4.35	34.105	27.06			14716						
STD	300	4.19	34.108	27.08	101.93	.325	14713						
OBS	373	3.88	34.163	27.16			14712						
STD	400	3.75	34.167	27.17	94.04	.423	14711						
OBS	469	3.46	34.171	27.20			14710						
STD	500	3.36	34.179	27.22	89.31	.514	14711						
OBS	566	3.18	34.198	27.25			14714						
STD	600	3.07	34.206	27.27	85.55	.602	14716						
STD	700	2.81	34.234	27.31	81.10	.685	14721						
OBS	771	2.66	34.257	27.34			14726						
STD	800	2.59	34.265	27.36	76.91	.764	14728						
STD	900	2.33	34.294	27.40	72.71	.839	14734						
OBS	984	2.64	34.370	27.44			14761						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 9	172	20AUG1963	315	4722S	3448W	5602	447	74	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
270	4	6.1	0.0	270	4

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	6.30	34.375	27.04	103.02	0.000	14755						
OBS	2	6.30	34.375	27.04			14755						
STD	10	6.30	34.368	27.04	103.63	.010	14756						
OBS	20	6.30	34.364	27.03			14757						
STD	20	6.30	34.364	27.03	104.07	.021	14758						
STD	30	6.29	34.364	27.03	104.09	.031	14759						
OBS	41	6.29	34.368	27.04			14760						
STD	50	6.29	34.374	27.04	103.64	.052	14762						
OBS	61	6.30	34.379	27.04			14764						
STD	75	6.29	34.374	27.04	104.11	.078	14766						
OBS	82	6.29	34.373	27.04			14767						
STD	100	6.30	34.392	27.06	102.88	.104	14771						
OBS	104	6.30	34.396	27.06			14771						
OBS	125	6.32	34.378	27.04			14775						
STD	150	6.36	34.378	27.04	105.41	.156	14781						
OBS	167	6.33	34.377	27.04			14782						
STD	200	5.77	34.308	27.06	103.95	.208	14765						
STD	250	4.75	34.204	27.09	100.38	.259	14730						
OBS	251	4.73	34.202	27.10			14728						
STD	300	4.28	34.224	27.16	94.23	.308	14718						
OBS	336	4.07	34.260	27.21			14715						
STD	400	3.72	34.248	27.24	87.65	.399	14711						
STD	500	3.30	34.211	27.25	86.30	.486	14709						
OBS	504	3.29	34.209	27.25			14709						
STD	600	2.96	34.229	27.30	82.65	.570	14711						
OBS	674	2.77	34.261	27.34			14715						
STD	700	2.73	34.275	27.35	77.29	.650	14718						
STD	800	2.64	34.331	27.41	72.53	.725	14731						
OBS	862	2.62	34.369	27.44			14741						
STD	900	2.59	34.391	27.46	68.12	.795	14746						
STD	1000	2.51	34.448	27.51	63.68	.861	14760						
OBS	1131	2.58	34.498	27.54			14785						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	173	20AUG1963	835	4735S	3449W	5596	447	74	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	3	7.0	0.0	300	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.99	34.224	27.08	99.08	0.000	14699						
OBS	2	4.99	34.224	27.08			14699						
STD	10	5.02	34.227	27.08	99.34	.010	14703						
STD	20	5.05	34.226	27.08	99.70	.020	14705						
OBS	25	5.05	34.227	27.08			14706						
STD	30	5.04	34.222	27.08	99.99	.030	14706						
OBS	49	4.98	34.215	27.08			14706						
STD	50	4.98	34.218	27.08	99.86	.050	14707						
OBS	73	4.96	34.269	27.12			14710						
STD	75	4.96	34.266	27.12	96.49	.074	14711						
OBS	99	4.94	34.217	27.08			14713						
STD	100	4.94	34.216	27.08	99.95	.099	14713						
OBS	123	4.80	34.206	27.09			14711						
OBS	147	4.61	34.193	27.10			14707						
STD	150	4.59	34.193	27.10	98.39	.149	14706						
OBS	195	4.27	34.193	27.14			14700						
STD	200	4.24	34.191	27.14	95.26	.197	14700						
STD	250	3.97	34.175	27.16	94.13	.244	14696						
OBS	292	3.79	34.163	27.16			14695						
STD	300	3.77	34.164	27.17	93.36	.291	14696						
OBS	389	3.54	34.191	27.21			14701						
STD	400	3.50	34.193	27.22	89.49	.383	14701						
STD	500	3.14	34.217	27.27	84.22	.469	14702						
OBS	584	2.83	34.238	27.31			14703						
STD	600	2.77	34.242	27.32	79.83	.551	14703						
STD	700	2.47	34.276	27.38	74.63	.629	14707						
OBS	780	2.32	34.311	27.42			14713						
STD	800	2.33	34.324	27.43	70.06	.701	14718						
STD	900	2.44	34.390	27.47	66.62	.769	14739						
OBS	992	2.59	34.455	27.51			14762						
STD	1000	2.60	34.460	27.51	63.73	.835	14764						
STD	1250	2.58	34.595	27.62	54.31	.982	14806						
OBS	1282	2.55	34.610	27.64			14810						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	174	20AUG1963	1507	4758S	3451W	5351	447	74	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			295	4	6.0	0.0	300	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.21	34.039	27.02	104.84	0.000	14665						
OBS	3	4.21	34.039	27.02			14665						
STD	10	4.20	34.080	27.06	101.70	.010	14666						
STD	20	4.18	34.131	27.10	97.70	.020	14668						
OBS	23	4.17	34.145	27.11			14667						
STD	30	4.18	34.176	27.14	94.38	.030	14670						
OBS	43	4.11	34.217	27.17			14669						
STD	50	3.92	34.224	27.20	88.34	.048	14663						
OBS	64	3.52	34.211	27.23			14647						
STD	75	3.43	34.166	27.20	88.44	.070	14645						
OBS	84	3.40	34.130	27.18			14644						
STD	100	3.32	34.128	27.18	90.20	.093	14644						
OBS	106	3.29	34.134	27.19			14643						
OBS	130	3.24	34.147	27.20			14645						
STD	150	3.52	34.074	27.12	96.48	.139	14660						
OBS	164	3.74	34.014	27.05			14670						
STD	200	3.67	34.015	27.06	102.67	.189	14674						
OBS	241	3.32	34.073	27.14			14666						
STD	250	3.28	34.072	27.14	95.11	.239	14666						
STD	300	3.09	34.059	27.15	94.67	.286	14666						
OBS	316	3.04	34.053	27.15			14665						
STD	400	2.80	34.089	27.20	90.53	.379	14670						
OBS	470	2.66	34.139	27.25			14675						
STD	500	2.62	34.155	27.27	83.87	.466	14679						
STD	600	2.55	34.214	27.32	79.83	.548	14693						
OBS	630	2.54	34.233	27.34			14697						
STD	700	2.55	34.294	27.38	74.06	.625	14710						
OBS	800	2.58	34.381	27.45			14729						
STD	800	2.58	34.381	27.45	68.24	.696	14729						
STD	900	2.58	34.468	27.52	62.28	.761	14747						
STD	1000	2.56	34.555	27.59	56.29	.820	14764						
OBS	1037	2.55	34.507	27.55			14768						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	175	20AUG1963	2020	4817S	3457W	5254	447	84	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	5	3.9	0.0	300	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.49	33.922	27.17	91.02	0.000	14545						
OBS	2	1.49	33.922	27.17			14545						
STD	10	1.73	33.946	27.17	90.83	.009	14558						
STD	20	1.96	33.975	27.18	90.30	.018	14570						
OBS	30	2.10	34.001	27.19			14578						
STD	30	2.10	34.001	27.19	89.36	.027	14578						
STD	50	2.08	34.050	27.23	85.56	.045	14581						
OBS	56	2.05	34.058	27.24			14581						
STD	75	2.07	34.024	27.21	87.77	.066	14585						
OBS	84	2.08	34.003	27.19			14586						
STD	100	2.04	34.008	27.20	88.58	.088	14587						
OBS	112	2.00	34.014	27.20			14587						
OBS	140	1.87	33.987	27.19			14585						
STD	150	1.95	34.004	27.20	88.27	.133	14591						
OBS	166	2.13	34.043	27.22			14602						
STD	200	2.31	34.105	27.25	83.69	.176	14616						
OBS	221	2.32	34.134	27.27			14620						
STD	250	2.02	34.142	27.31	78.75	.216	14612						
STD	300	1.45	34.145	27.35	74.43	.254	14595						
OBS	326	1.13	34.148	27.37			14585						
STD	400	1.25	34.235	27.44	66.55	.325	14604						
OBS	432	1.42	34.282	27.46			14617						
STD	500	1.68	34.373	27.52	59.24	.388	14641						
OBS	539	1.83	34.420	27.54			14654						
STD	600	2.00	34.469	27.57	55.65	.445	14673						
OBS	644	2.09	34.497	27.58			14684						
STD	700	2.10	34.529	27.61	52.25	.499	14694						
STD	800	2.13	34.575	27.64	49.33	.550	14712						
OBS	865	2.14	34.597	27.66			14723						
STD	900	2.14	34.613	27.67	47.05	.598	14730						
STD	1000	2.10	34.658	27.71	43.96	.644	14745						
OBS	1095	2.05	34.640	27.70			14758						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	176	21AUG1963	1300	5021S	3506W	3700	483	5	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			270	3	2.8	0.0	290	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	2.21	34.076	27.24	84.47	0.000	14579						
OBS	2	2.21	34.076	27.24			14579	752	168	241	18		
STD	10	2.20	34.088	27.25	83.55	.008	14581						
STD	20	2.21	34.084	27.24	83.85	.017	14582						
OBS	28	0.00	34.088	0.00			0	841	238	255	14		4
STD	30	2.20	34.082	27.24	84.03	.025	14584						
STD	50	2.20	34.030	27.20	87.95	.042	14586						
OBS	55	2.20	34.020	27.19			14582	744	208	252	15		
STD	75	2.22	34.075	27.24	85.01	.064	14592						
OBS	82	2.22	34.094	27.25			14588	743	224	255	27		
STD	100	2.20	34.053	27.22	86.28	.085	14594						
OBS	108	2.18	34.031	27.20			14590	738	206	280	46		
STD	150	2.13	34.113	27.27	81.43	.127	14600						
OBS	167	2.07	34.166	27.32			14596	568		331	57		4
STD	200	1.78	34.193	27.36	72.89	.166	14594						
OBS	215	1.65	34.200	27.38			14586	629	212	309	66		
STD	250	1.69	34.228	27.40	69.66	.202	14599						
STD	300	1.67	34.278	27.44	65.99	.235	14607						
OBS	321	1.76	34.302	27.45			14610	540	241	367	63		
STD	400	2.12	34.422	27.52	59.47	.298	14645						
OBS	427	2.25	34.463	27.54			14650	450	222	338	64		
STD	500	2.26	34.524	27.59	52.94	.354	14669						
STD	600	2.28	34.580	27.63	49.94	.406	14686						
OBS	641	2.29	34.594	27.64			14689	410	226	375	79		
STD	700	2.28	34.626	27.67	46.70	.454	14703						
STD	800	2.26	34.673	27.71	43.30	.499	14719						
OBS	847	2.25	34.693	27.73			14722	415	241	345	101		
STD	900	2.26	34.712	27.74	40.92	.541	14736						
STD	1000	2.28	34.742	27.76	39.48	.581	14754						
OBS	1058	2.29	34.757	27.78			14759	437	246	363	101		
OBS	1173	2.26	34.836	27.84			14778	447	231	373	129		2
STD	1250	2.24	34.760	27.78	38.50	.679	14794						
OBS	1427	2.16	34.836	27.85			14816	478	220	327	134		2
STD	1500	2.07	34.764	27.80	37.84	.774	14828						
OBS	1680	1.82	34.808	27.85			14842	473	231	323	148		2
STD	1750	1.72	34.768	27.83	34.30	.865	14854						
OBS	1931	1.48	34.771	27.85			14869						
STD	2000	1.40	34.768	27.85	31.96	.947	14881						
OBS	2182	1.19	34.756	27.86			14898	472	334		221		
STD	2250	1.12	34.751	27.86	30.42	1.025	14911						
OBS	2441	.94	34.736	27.86			14930	481	228	304	99		
STD	2500	.90	34.728	27.85	30.69	1.102	14943						
OBS	2698	0.00	34.706	0.00			0	491	224	362	118		
STD	2750	.73	34.706	27.85	30.12	1.178	14978						
OBS	2950	.61	34.709	27.86			14822	497	233	333	118		
STD	3000	.57	34.704	27.86	28.79	1.251	15013						
OBS	3202	.41	34.687	27.85			14855	507	233	341	119		
STD	3250	.37	34.689	27.86	27.16	1.321	15047						
OBS	3456	.11	34.697	27.88			14885	519	238	310	124		1
STD	3500	.17	34.696	27.87	24.41	1.386	15081						
STD	3750	-.02	34.681	27.87	21.93	1.444	15115						
OBS	3802	.18	34.675	27.85			14947	523	211	323	101		

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	177	25AUG1963	1730	5500S	3801W	991	483	58	10				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		90	4	-4.4	0.0	120	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.20	33.997	27.33	75.90	0.000	14470						
OBS	2	-.20	33.997	27.33			14470	793	218	212	36	779	
STD	10	-.19	33.975	27.31	77.54	.008	14471						
OBS	18	-.20	33.962	27.30			14472	793	214	237	31	800	
STD	20	-.21	33.963	27.30	78.34	.015	14472						
STD	30	-.25	33.964	27.30	78.09	.023	14472						
OBS	44	-.31	33.978	27.32			14471	799	208	304	28	796	
STD	50	-.29	33.980	27.32	76.59	.039	14474						
STD	75	-.30	33.996	27.33	75.43	.058	14477						
OBS	100	-.09	34.027	27.35			14491	771	208	257	34	794	
STD	100	-.09	34.027	27.35	73.72	.076	14492						
STD	150	1.13	34.180	27.40	69.11	.112	14557						
OBS	153	1.21	34.190	27.40			14561	605	244	342	44	791	
STD	200	1.66	34.284	27.45	65.09	.146	14590						
STD	250	1.75	34.358	27.50	60.37	.177	14603						
OBS	260	1.81	34.370	27.50			14607	494	242	371	61	778	
STD	300	1.93	34.427	27.54	56.83	.206	14620						
OBS	366	2.05	34.505	27.59			14637	430	229	395	71	778	
STD	400	2.09	34.529	27.61	51.16	.260	14645						
STD	500	2.11	34.580	27.65	47.43	.310	14663						
OBS	575	2.15	34.597	27.66			14677	407	234	321	90	777	
STD	600	2.14	34.604	27.67	46.85	.357	14681						
STD	700	2.10	34.631	27.69	44.63	.402	14696						
OBS	785	2.03	34.648	27.71			14706	409	213	328	92	776	
STD	800	2.02	34.652	27.71	42.62	.446	14709						
STD	900	1.96	34.676	27.74	40.68	.488	14723						
STD	1000	1.91	34.700	27.76	38.87	.528	14737						
OBS	1004	1.78	34.688	27.76			14732	425	219	352	80	775	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	178	26AUG1963	1816	5604S	3716W	3617	483	67	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			310	4	-2.5	0.0	315	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	± ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-.77	34.148	27.47	62.02	0.000	14446						
OBS	2	-.77	34.148	27.47			14446	806	188	237	64	837	
STD	10	-.77	34.163	27.49	60.79	.006	14447						
STD	20	-.77	34.165	27.49	60.58	.012	14449						
OBS	26	-.77	34.171	27.49			14450	800	189	269	63		
STD	30	-.77	34.164	27.49	60.60	.018	14451						
OBS	49	-.77	34.129	27.46			14453	804	181	233	57		
STD	50	-.77	34.129	27.46	63.18	.031	14454						
OBS	75	-.69	34.141	27.47			14461	794	200	223	62	842	
STD	75	-.69	34.141	27.47	62.69	.046	14461						
OBS	99	-.60	34.139	27.46			14469	777	188	268	55	832	
STD	100	-.59	34.139	27.46	62.83	.062	14470						
OBS	145	-.19	34.201	27.49			14496	734	194	316	68	830	
STD	150	-.10	34.216	27.50	59.15	.093	14502						
OBS	193	.64	34.349	27.57			14544	627	193	404	83	824	
STD	200	.72	34.364	27.57	52.54	.120	14549						
STD	250	1.12	34.451	27.62	48.68	.146	14576						
OBS	288	1.25	34.496	27.65			14589	512	229	356	90	824	
STD	300	1.28	34.512	27.66	45.44	.169	14593						
OBS	386	1.35	34.603	27.72			14611	479	217	247	97	820	
STD	400	1.35	34.611	27.73	39.01	.212	14614						
STD	500	1.34	34.652	27.76	35.55	.249	14630						
OBS	581	1.30	34.662	27.77			14641	476	212	409	96	819	
STD	600	1.29	34.666	27.78	34.91	.284	14644						
STD	700	1.24	34.681	27.79	33.27	.318	14658						
OBS	778	1.19	34.689	27.80			14669	474	214	341	106	817	
STD	800	1.18	34.691	27.81	32.16	.351	14672						
STD	900	1.13	34.698	27.82	31.41	.383	14686						
OBS	979	1.08	34.703	27.82			14697	477	215	380	126	819	
STD	1000	1.06	34.705	27.83	30.55	.414	14700						
OBS	1153	.89	34.722	27.85			14717	485	188	396	123	819	
STD	1250	.83	34.728	27.86	26.70	.485	14731						
OBS	1389	.76	34.731	27.87			14751	492	194	397	139	820	
STD	1500	.69	34.727	27.87	26.16	.551	14766						
OBS	1627	0.00	34.719	0.00			0	493	198	389	135	822	
STD	1750	.54	34.709	27.86	26.03	.617	14801						
OBS	1870	.48	34.699	27.86			14769	501	226	271	125	820	
STD	2000	.43	34.691	27.85	26.85	.683	14837						
OBS	2104	.39	34.687	27.85			14804	507	193	403	147	820	
STD	2250	.34	34.687	27.86	26.23	.749	14876						
OBS	2349	.31	34.688	27.86			14842	517	188	405	128	818	
STD	2500	.23	34.680	27.86	26.23	.815	14913						
OBS	2593	.18	34.677	27.86			14877	527	189	242	137	823	
STD	2750	.14	34.687	27.87	24.22	.878	14951						
OBS	2849	.11	34.692	27.87			14917	540	221	420	148	822	
STD	3000	.05	34.680	27.87	23.93	.938	14989						
OBS	3104	0.00	34.671	27.86			14956	539	197	411	129	821	9
STD	3250	-.06	34.679	27.87	22.20	.995	15028						
OBS	3362	-.09	34.681	27.87			14996	551	220	237	125	819	
OBS	3450	-.10	34.667	27.86			15010	546	158	405	130	818	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	179	28AUG1963	517	5652S	3745W	3195	483	67	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			180	6	-5.8	0.0	225	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-.63	34.302	27.59	50.78	0.000	14454						
OBS	2	-.63	34.302	27.59			14454	742		354	76	813	
STD	10	-.62	34.299	27.59	51.02	.005	14456						
STD	20	-.61	34.294	27.59	51.31	.010	14458						
OBS	26	-.61	34.292	27.58			14459	743		426	76	824	
STD	30	-.61	34.291	27.58	51.50	.015	14460						
OBS	50	-.61	34.283	27.58			14463	743		355	74	826	
STD	50	-.61	34.283	27.58	52.04	.026	14463						
OBS	74	-.59	34.245	27.55			14467	742		406	74	825	
STD	75	-.59	34.246	27.55	55.07	.039	14467						
OBS	97	-.60	34.288	27.58			14471	739		383	72	828	
STD	100	-.58	34.294	27.58	51.16	.052	14473						
OBS	149	-.05	34.370	27.62			14506	650		431	79	826	
STD	150	-.04	34.371	27.62	47.64	.077	14507						
OBS	189	.18	34.407	27.64			14523	634		308	85	827	
STD	200	.32	34.424	27.65	45.53	.100	14532						
STD	250	.96	34.505	27.67	43.56	.123	14570						
OBS	277	1.33	34.550	27.68			14591	490		448	82	822	
STD	300	1.52	34.575	27.69	42.40	.144	14604						
OBS	366	1.86	34.631	27.71			14630	425		442	95	821	
STD	400	1.90	34.652	27.72	40.39	.186	14638						
STD	500	1.87	34.694	27.76	36.77	.224	14654						
OBS	552	1.76	34.705	27.78			14657	435		464	101	820	
STD	600	1.73	34.712	27.78	35.10	.260	14664						
STD	700	1.64	34.718	27.80	33.92	.295	14677						
OBS	750	1.59	34.718	27.80			14682	442		394	112	822	
STD	800	1.53	34.718	27.80	33.15	.328	14688						
STD	900	1.40	34.719	27.81	32.16	.361	14699						
OBS	961	1.30	34.720	27.82			14704	459		453	117	820	
OBS	978	1.27	34.716	27.82			14705	462		453	114	821	
STD	1000	1.24	34.712	27.82	31.65	.393	14708						
STD	1250	.96	34.695	27.82	30.41	.470	14737						
OBS	1253	.96	34.695	27.82			14737	474		459	118	823	
STD	1500	.82	34.703	27.84	29.22	.545	14772						
OBS	1521	.81	34.704	27.84			14775	478		453	128	822	
STD	1750	.67	34.716	27.86	26.81	.615	14807						
OBS	1787	.65	34.717	27.86			14812	481		458	130	820	
STD	2000	.55	34.709	27.86	26.82	.682	14843						
OBS	2044	0.00	34.706	0.00			0	493		447	126	818	
STD	2250	.43	34.693	27.86	26.79	.749	14880						
OBS	2294	.41	34.690	27.85			14833	505		430	130	821	
STD	2500	.30	34.681	27.85	27.01	.816	14916						
OBS	2549	.27	34.679	27.85			14869	516		400	135	820	
STD	2750	.16	34.676	27.86	25.28	.881	14952						
OBS	2790	.14	34.676	27.86			14904	518		402	132	810	
STD	3000	.07	34.673	27.86	24.69	.944	14990						
OBS	3027	.06	34.664	27.85			14941	532		343	132	816	2
STD	3250	-.06	34.670	27.86	22.80	1.003	15027						
OBS	3292	-.09	34.672	27.87			14979	541		416	138	814	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	180	29AUG1963	2005	5805S	3802W	3199	483	88	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		100	3	-8.2	0.0	230	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.86	34.135	27.47	62.69	0.000	14441						
OBS	2	-.86	34.135	27.47			14441	783	194	311	60	829	
STD	10	-.84	34.115	27.45	64.22	.006	14443						
STD	20	-.83	34.102	27.44	65.23	.013	14446						
OBS	25	-.82	34.100	27.44			14446	789	197	338	51	832	
STD	30	-.82	34.105	27.44	64.94	.019	14448						
OBS	46	-.81	34.129	27.46			14451	778	190	272	48	832	
STD	50	-.81	34.131	27.46	62.84	.032	14452						
OBS	71	-.75	34.141	27.47			14458	772	205	319	65	833	
STD	75	-.74	34.142	27.47	62.45	.048	14459						
OBS	94	-.54	34.159	27.47			14471	760	188	338	75	832	
STD	100	-.32	34.184	27.48	60.65	.063	14483						
OBS	140	1.27	34.373	27.55			14564	531	208	332	74	826	
STD	150	1.42	34.394	27.55	54.88	.092	14573						
OBS	186	1.66	34.440	27.57			14590	486	201	369	102	824	
STD	200	1.75	34.462	27.58	52.32	.119	14597						
STD	250	1.99	34.532	27.62	49.13	.144	14616						
OBS	280	2.07	34.568	27.64			14625	421	235	357	97	821	
STD	300	2.08	34.581	27.65	46.47	.168	14629						
OBS	376	2.04	34.614	27.68			14640	417	201	266	92	820	
STD	400	2.04	34.626	27.69	43.45	.213	14644						
STD	500	2.02	34.670	27.73	39.87	.255	14660						
OBS	566	1.99	34.692	27.75			14669	421	209	344	76	820	
STD	600	1.93	34.695	27.75	38.13	.294	14673						
STD	700	1.75	34.701	27.77	36.24	.331	14681						
OBS	757	1.65	34.701	27.78			14686	443	198	274	112	822	
STD	800	1.64	34.713	27.79	34.49	.366	14693						
STD	900	1.60	34.731	27.81	33.17	.400	14708						
OBS	953	1.59	34.736	27.81			14716	444	233	332	118	824	
OBS	981	1.56	34.731	27.81			14719	444	203	257	113	825	
STD	1000	1.54	34.730	27.81	33.13	.433	14721						
OBS	1110	1.43	34.729	27.82			14734	452	204	347	98	822	
OBS	1235	1.35	34.719	27.82			14751	459	200	247	105	820	
STD	1250	1.33	34.719	27.82	32.21	.515	14753						
OBS	1355	1.21	34.734	27.84			14765	467	197	258	114	821	2
STD	1500	1.06	34.711	27.83	30.98	.594	14783						
OBS	1606	.96	34.708	27.83			14795	476	207	355	132	820	
STD	1750	.84	34.696	27.83	30.02	.670	14814						
OBS	1854	.77	34.688	27.83			14828	491	209	243	128	820	
STD	2000	.67	34.683	27.83	30.08	.745	14848						
OBS	2106	.61	34.681	27.83			14863	502	205	280	143	820	
STD	2250	.53	34.678	27.84	28.94	.819	14884						
OBS	2372	.46	34.677	27.84			14901	503	232	270	142	820	
STD	2500	.37	34.677	27.85	28.18	.890	14919						
OBS	2637	.28	34.675	27.85			14938	515	177	210	139	826	
STD	2750	.21	34.669	27.85	26.43	.959	14954						
OBS	2904	.12	34.663	27.85			14976	525	222	404	125	820	
STD	3000	.06	34.666	27.85	25.16	1.023	14990						
OBS	3100	0.00	34.672	27.86			15005	537	192	296	134	821	9

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	181	31AUG1963	358	5846S	3735W	2910	483	87	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		330	7	-1.1	0.0	280	2						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-1.74	34.306	27.63	46.92	0.000	14402						
OBS	3	-1.74	34.306	27.63			14402	798	209	228	62	808	
STD	10	-1.77	34.300	27.63	47.20	.005	14403						
STD	20	-1.79	34.300	27.63	47.11	.009	14403						
OBS	24	-1.80	34.298	27.63			14403	798	235	388	63	807	
STD	30	-1.80	34.303	27.63	46.71	.014	14404						
OBS	46	-1.80	34.319	27.65			14407	790	232	281	63	807	
STD	50	-1.80	34.319	27.65	45.33	.023	14408						
OBS	69	-1.79	34.315	27.64			14411	798	234	210	61	812	
STD	75	-1.80	34.314	27.64	45.78	.035	14412						
OBS	90	-1.81	34.313	27.64			14413	798	245	369	58	809	
STD	100	-1.82	34.312	27.64	45.45	.046	14415						
OBS	138	-1.51	34.338	27.65			14436	774	237	375	66	805	
STD	150	-1.15	34.369	27.67	42.87	.068	14455						
OBS	179	-.21	34.453	27.70			14504	642		359		801	
STD	200	.16	34.496	27.71	39.16	.089	14526						
STD	250	.69	34.575	27.74	36.45	.108	14559						
OBS	268	.75	34.594	27.76			14564	525	226	386	65	801	
STD	300	.90	34.623	27.77	34.40	.125	14577						
OBS	359	1.04	34.658	27.79			14593	487	213	412	72	800	
STD	400	1.08	34.676	27.80	32.03	.159	14602						
STD	500	1.06	34.703	27.82	29.51	.189	14618						
OBS	548	1.00	34.707	27.83			14623	470	246	375	83	803	
STD	600	.95	34.707	27.83	29.07	.219	14629						
OBS	664	.87	34.705	27.84			14636	479	205	339	86	799	
STD	700	.82	34.705	27.84	28.08	.247	14640						
OBS	748	.75	34.706	27.85			14644	483	249	403	79	797	
STD	800	.69	34.709	27.85	26.76	.275	14651						
STD	900	.59	34.713	27.86	25.80	.301	14663						
OBS	915	.58	34.713	27.86			14664	485	245	377	85	797	
STD	1000	.52	34.707	27.86	25.86	.327	14676						
OBS	1028	0.00	34.705	0.00			0	487	205	414	94	795	
OBS	1165	.43	34.709	27.87			14666	493	217	429	90	794	
STD	1250	.39	34.711	27.87	24.02	.389	14711						
OBS	1433	.30	34.711	27.88			14705	499	217	318	89	791	
STD	1500	.27	34.707	27.88	23.73	.449	14747						
OBS	1710	.18	34.691	27.87			14745	510	224	440	101	794	
STD	1750	.16	34.689	27.87	23.69	.508	14784						
OBS	1978	.06	34.683	27.87			14784	519	202	386	93	795	
STD	2000	.05	34.682	27.87	23.62	.567	14820						
STD	2250	-.06	34.675	27.87	22.72	.625	14857						
OBS	2263	-.07	34.675	27.87			14826	533	171	349	96	795	
STD	2500	-.17	34.677	27.88	21.96	.681	14895						
OBS	2549	-.19	34.678	27.88			14869	551	234	399	92	793	
OBS	2705	-.25	34.675	27.88			14893	554	224	341	93	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 9	182	1SEP1963	635	5910S	3721W	2864	483	97	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			235	5	-12.0	0.0	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.84	34.368	27.69	41.92	0.000	14398						
OBS	6	-1.84	34.368	27.69			14398	780	179	341	71		
STD	10	-1.84	34.363	27.68	42.21	.004	14400						
STD	20	-1.83	34.364	27.68	42.09	.008	14402						
OBS	29	-1.83	34.361	27.68			14403	786	115	354	66	805	
STD	30	-1.83	34.362	27.68	42.11	.013	14404						
STD	50	-1.84	34.400	27.71	39.03	.021	14407						
OBS	52	-1.84	34.405	27.72			14406	773	184	335	66	804	
OBS	75	-1.61	34.467	27.76			14422	664	161	428	75	804	
STD	75	-1.61	34.467	27.76	34.56	.030	14423						
OBS	98	-.75	34.484	27.75			14466	647	175	402	75	796	
STD	100	-.74	34.484	27.74	35.93	.039	14468						
OBS	144	-1.01	34.478	27.75			14461	685	131	388	76	803	
STD	150	-1.05	34.479	27.75	34.82	.056	14462						
OBS	192	-1.16	34.493	27.77			14462	653	177	337	67	803	
STD	200	-1.07	34.493	27.76	33.49	.074	14469						
STD	250	-.40	34.494	27.74	36.32	.091	14508						
OBS	287	.21	34.377	27.61			14539	620	190	383	70	802	2
STD	300	.30	34.495	27.70	40.13	.110	14548						
OBS	383	.61	34.497	27.69			14575	551		373	71	795	
STD	400	.64	34.513	27.70	41.25	.151	14580						
STD	500	.71	34.606	27.77	34.19	.188	14601						
OBS	574	.66	34.675	27.83			14611	501	220	445	82	795	
STD	600	.65	34.679	27.83	28.93	.220	14615						
STD	700	.58	34.681	27.84	28.11	.249	14629						
OBS	770	.53	34.670	27.83			14637	500	157	427	93	794	
STD	800	.52	34.675	27.84	27.97	.277	14642						
STD	900	.48	34.690	27.85	26.56	.304	14657						
STD	1000	.44	34.704	27.86	25.45	.330	14672						
OBS	1008	.44	34.705	27.86			14672	490	161	414	82	793	
OBS	1132	.40	34.699	27.86			14691	495	180	448	93	794	
STD	1250	.34	34.692	27.86	25.05	.393	14709						
OBS	1255	.34	34.692	27.86			14709	502	200	412	96	795	
OBS	1377	0.00	34.693	0.00			0	510	203	439	101	793	
OBS	1496	.23	34.683	27.86			14758	514	120	418	104	797	
STD	1500	.23	34.683	27.86	25.11	.456	14745						
OBS	1611	.19	34.681	27.86			14776	512	190	444	95	795	
STD	1750	.14	34.684	27.86	23.83	.517	14783						
OBS	1852	.10	34.687	27.87			14812	526	121			798	
STD	2000	.05	34.683	27.87	23.55	.576	14820						
OBS	2093	.01	34.679	27.87			14848	537	129	445	106	799	
STD	2250	-.06	34.677	27.87	22.59	.634	14857						
OBS	2348	-.11	34.676	27.87			14886	551	147	365	99	803	
STD	2500	-.18	34.671	27.87	22.31	.690	14894						
OBS	2603	-.23	34.666	27.87			14924	564	192	408	90	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	183	2SEP1963	1548	5840S	3545W	2092	483	85	19				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		315	6	-3.6	0.0	315	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.85	34.364	27.68	42.20	0.000	14398						
OBS	2	-1.85	34.364	27.68			14398	778	202	284	82	792	
STD	10	-1.85	34.364	27.68	42.12	.004	14400						
STD	20	-1.84	34.364	27.68	42.04	.008	14402						
OBS	27	-1.84	34.364	27.68			14402	778	162	396	83	803	
STD	30	-1.84	34.364	27.68	41.95	.013	14403						
STD	50	-1.83	34.365	27.68	41.75	.021	14407						
OBS	52	-1.83	34.365	27.68			14407	770	208	322	82	805	
STD	75	-1.81	34.370	27.69	41.47	.031	14412						
OBS	78	-1.81	34.370	27.69			14412	773	228	418	84	805	
STD	100	-1.83	34.361	27.68	41.62	.042	14415						
OBS	103	-1.83	34.360	27.68			14415	769	227	387	80	807	
STD	150	-1.82	34.362	27.68	41.22	.062	14423						
OBS	156	-1.81	34.364	27.68			14425	772	189	285	79	809	
STD	200	-1.49	34.386	27.69	40.16	.083	14448						
OBS	207	-1.41	34.392	27.69			14452	726	163	406	79	806	
STD	250	-.66	34.489	27.75	35.48	.102	14496						
STD	300	.18	34.606	27.80	31.03	.118	14544						
OBS	308	.31	34.625	27.81			14552	514	193	435	105	810	
STD	400	.45	34.661	27.83	28.76	.148	14574						
OBS	410	.42	34.660	27.83			14574	501	197	362	109	803	
STD	500	.43	34.677	27.84	26.93	.176	14589						
OBS	585	.42	34.682	27.85			14602	487	204	409	108	800	
STD	600	.43	34.682	27.85	27.10	.203	14606						
OBS	613	.43	34.682	27.85			14608	492	239	461	116	802	
OBS	677	.43	34.682	27.85			14618	489	198	415	122	805	
STD	700	.42	34.683	27.85	26.72	.230	14622						
STD	800	.39	34.689	27.85	25.91	.256	14637						
OBS	817	.38	34.690	27.86			14639	484	220	458	126	800	
STD	900	.39	34.687	27.85	26.11	.282	14653						
OBS	944	.39	34.686	27.85			14660	491	187	429	123	808	
STD	1000	.37	34.691	27.86	25.82	.308	14669						
OBS	1034	.35	34.694	27.86			14673	495	195	458	125	801	
OBS	1205	.23	34.683	27.86			14696	500	203	460	127	808	
STD	1250	.21	34.681	27.86	24.71	.371	14703						
OBS	1471	.12	34.725	27.90			14736	512	211	480	123	803	2
STD	1500	.11	34.680	27.86	24.28	.433	14740						
OBS	1740	.03	34.677	27.86			14776	522	211	447	128	800	
STD	1750	.03	34.677	27.86	23.31	.492	14777						
STD	2000	-.09	34.680	27.87	22.40	.549	14814						
OBS	2004	-.09	34.680	27.87			14815	532	200	457	126	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	184	3SEP1963	1805	5840S	3356W	2555	483	83	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			235	6	-12.8	0.0	250	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.51	34.346	27.66	44.44	0.000	14414						
OBS	5	-1.51	34.346	27.66			14414	795	205	241	54	797	
STD	10	-1.51	34.286	27.61	48.99	.005	14415						
STD	20	-1.49	34.204	27.54	55.27	.010	14416						
OBS	24	-1.47	34.185	27.53			14416	786	205	239	56	798	
STD	30	-1.45	34.186	27.53	56.63	.015	14419						
OBS	47	-1.31	34.236	27.56			14428	783	199	265	46	801	
STD	50	-1.25	34.241	27.57	52.92	.026	14433						
OBS	70	-.90	34.267	27.58			14452	782	212	248	51	812	
STD	75	-.89	34.274	27.58	51.74	.040	14454						
OBS	90	-.88	34.296	27.60			14456	778	223	256	54	806	
STD	100	-.79	34.309	27.60	49.12	.052	14463						
OBS	139	-.11	34.374	27.63			14501	685	221	285	57	804	
STD	150	.20	34.406	27.64	46.25	.076	14518						
OBS	178	.96	34.489	27.66			14557	542	236	300	74	801	
STD	200	1.18	34.524	27.67	43.52	.098	14572						
STD	250	1.32	34.571	27.70	41.10	.120	14587						
OBS	269	1.24	34.577	27.71			14586	499	239	277	86	807	
STD	300	1.25	34.596	27.73	38.85	.140	14592						
OBS	359	1.23	34.624	27.75			14601	485	213	271	79	795	
STD	400	1.26	34.639	27.76	36.20	.177	14610						
STD	500	1.34	34.669	27.78	34.29	.212	14630						
OBS	555	1.39	34.680	27.78			14641	456	218	401	104	798	
STD	600	1.38	34.688	27.79	33.95	.246	14648						
STD	700	1.33	34.704	27.81	32.34	.280	14663						
OBS	754	0.00	34.711	0.00			0	464	213	313	113	820	
STD	800	1.24	34.719	27.82	30.57	.311	14675						
OBS	839	1.19	34.723	27.83			14669	468	220	347	100	809	
STD	900	1.12	34.721	27.83	29.61	.341	14686						
OBS	939	1.07	34.717	27.83			14680	465	235	357	113	808	
STD	1000	1.01	34.714	27.84	29.45	.371	14698						
OBS	1060	.94	34.695	27.83			14694	474	230	371	117	809	2
OBS	1181	.78	34.710	27.85			14707	483	231	409	138	790	
STD	1250	.74	34.711	27.85	27.12	.441	14727						
OBS	1309	.71	34.712	27.85			14725	491	204		161	797	7
OBS	1437	.63	34.708	27.86			14743	491	219		180	797	7
STD	1500	.58	34.705	27.86	26.77	.509	14761						
OBS	1567	.53	34.701	27.86			14760	498	199		133	798	
OBS	1698	.46	34.696	27.86			14778	501	205	457	145	796	
STD	1750	.42	34.694	27.86	25.92	.575	14795						
OBS	1967	.27	34.685	27.86			14814	514	234	426	121	796	
STD	2000	.26	34.684	27.86	25.61	.639	14830						
OBS	2227	.18	34.679	27.86			14854	522	210	464	159	798	7
STD	2250	.17	34.679	27.86	24.96	.702	14868						
OBS	2464	.06	34.681	27.87			14889	528	241	451	121	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	185	5SEP1963	1200	5747S	3355W	2666	483	73	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		255	6	-7.2	0.0	240	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.08	34.219	27.54	55.49	0.000	14432						
OBS	2	-1.08	34.219	27.54			14432	786	206	271	66		
STD	10	-1.08	34.228	27.55	54.77	.006	14434						
STD	20	-1.07	34.233	27.55	54.28	.011	14436						
OBS	24	-1.07	34.234	27.56			14436	779	212	400	60	810	
STD	30	-1.07	34.230	27.55	54.47	.016	14438						
OBS	48	-1.05	34.219	27.54			14441	781	202	310	63	807	
STD	50	-1.05	34.220	27.54	55.15	.027	14442						
OBS	72	-1.01	34.239	27.56			14447	774	222	401	63	812	
STD	75	-.99	34.239	27.56	54.04	.041	14449						
OBS	95	-.75	34.245	27.55			14463	768	213	283	56	807	
STD	100	-.66	34.255	27.56	53.76	.054	14468						
OBS	149	.30	34.381	27.61			14522	637	176	429	60	803	
STD	150	.32	34.383	27.61	48.67	.080	14523						
OBS	192	1.01	34.471	27.64			14562	547	225	404	81	800	
STD	200	1.11	34.485	27.65	45.89	.104	14568						
STD	250	1.56	34.561	27.68	43.58	.126	14598						
OBS	291	1.74	34.605	27.70			14613	440	217	473	88	793	
STD	300	1.76	34.611	27.70	41.56	.147	14615						
OBS	390	1.76	34.653	27.73			14630	431	224	351	92	794	
STD	400	1.74	34.656	27.74	38.75	.188	14631						
STD	500	1.62	34.679	27.77	35.77	.225	14643						
OBS	588	1.61	34.698	27.78			14656	447	214	355	98	798	
STD	600	1.65	34.703	27.78	35.09	.260	14661						
OBS	645	1.77	34.720	27.79			14673	436	222	374	98	800	
STD	700	1.63	34.719	27.80	33.77	.295	14676						
OBS	739	1.49	34.715	27.80			14676	457	221	421	92	799	
OBS	784	1.47	34.720	27.81			14683	462	217	418	98	803	
STD	800	1.45	34.718	27.81	32.48	.328	14685						
OBS	863	1.35	34.706	27.81			14690					801	
STD	900	1.26	34.705	27.81	32.00	.360	14692						
OBS	974	1.07	34.707	27.83			14696	473	208	427	107	800	
STD	1000	1.05	34.710	27.83	30.15	.391	14699						
OBS	1226	1.00	34.734	27.85			14735	478	221	408	114	799	
STD	1250	.98	34.734	27.85	27.63	.463	14738						
OBS	1465	.74	34.725	27.86			14762	485	201	412	121	798	
STD	1500	.71	34.721	27.86	26.77	.531	14767						
OBS	1713	.54	34.701	27.86			14794	494	217	426	115	801	
STD	1750	.52	34.701	27.86	26.33	.598	14800						
OBS	1968	.39	34.705	27.87			14830	498	207	396	123	800	
STD	2000	.37	34.705	27.87	25.22	.662	14835						
OBS	2242	.25	34.702	27.87			14870	508	184	434	127	799	
STD	2250	.25	34.701	27.87	24.17	.724	14872						
STD	2500	.19	34.683	27.86	25.65	.786	14911						
OBS	2514	.19	34.682	27.86			14913	518	209	404	126	797	
OBS	2719	.06	34.686	27.87			14942	525	228	418	127	801	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	186	6SEP1963	825	5649S	3415W	3339	483	64	20				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			235	7	-6.8	0.0	230	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-.58	34.098	27.43	66.58	0.000	14454						
OBS	4	-.58	34.098	27.43			14454	785	243	446	48		
STD	10	-.58	34.100	27.43	66.34	.007	14455						
STD	20	-.58	34.102	27.43	66.16	.013	14457						
OBS	22	-.58	34.102	27.43			14457	780	158	409	47	810	
STD	30	-.58	34.100	27.43	66.26	.020	14459						
OBS	42	-.58	34.096	27.42			14460	780	191	312	43	811	
STD	50	-.57	34.096	27.42	66.49	.033	14462						
OBS	62	-.55	34.098	27.43			14465	782	155	388	48	812	
STD	75	-.58	34.098	27.43	66.42	.050	14466						
OBS	82	-.58	34.100	27.43			14466	776	203	354	45	815	
STD	100	-.36	34.121	27.44	65.30	.066	14480						
OBS	124	.10	34.171	27.45			14505	698	201	328	50	811	
STD	150	.66	34.258	27.49	60.22	.098	14537						
OBS	166	.99	34.313	27.52			14555	578	193	433	66	797	
STD	200	1.35	34.380	27.55	55.57	.127	14578						
STD	250	1.59	34.442	27.58	52.76	.154	14597						
OBS	252	1.59	34.444	27.58			14597	481	231	364	78	800	
STD	300	1.70	34.497	27.61	49.75	.179	14611						
OBS	337	1.74	34.532	27.64			14619	447	223	383	86	801	
STD	400	1.85	34.592	27.68	44.45	.226	14635						
STD	500	1.96	34.660	27.72	40.05	.269	14657						
OBS	509	1.96	34.664	27.73			14658	413	193	377	98	793	
STD	600	1.89	34.675	27.74	39.34	.308	14671						
OBS	633	1.85	34.675	27.74			14674	424	227	442	102	795	
OBS	690	1.78	34.686	27.76			14680	537	206	334	102	797	4
STD	700	1.77	34.688	27.76	37.36	.347	14682						
STD	800	1.73	34.708	27.78	35.65	.383	14697						
OBS	866	1.71	34.720	27.79			14706	434	202	329	107	801	
STD	900	1.69	34.724	27.80	34.51	.418	14711						
STD	1000	1.61	34.731	27.81	33.70	.452	14725						
OBS	1103	1.52	34.735	27.82			14737	452	212	406	114	798	
STD	1250	1.37	34.739	27.83	31.10	.533	14756						
OBS	1344	0.00	34.719	0.00			0	463	221	432	123	796	2
STD	1500	1.13	34.737	27.85	29.79	.609	14786						
OBS	1587	1.05	34.734	27.85			14818	470	223	448	126	797	
STD	1750	.93	34.725	27.85	28.83	.683	14819						
OBS	1822	.88	34.720	27.85			14849	474	224	391	132	794	
STD	2000	.75	34.711	27.85	28.79	.755	14852						
OBS	2081	.69	34.709	27.85			14884	487	217	449	132	796	
STD	2250	.59	34.712	27.86	27.22	.825	14887						
OBS	2335	.55	34.714	27.87			14921	493	225	474	137	795	
STD	2500	.46	34.711	27.87	26.70	.892	14923						
OBS	2617	.40	34.706	27.87			14962	509	200	435	138	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 9	187	7SEP1963	1753	5602S	3401W	3173	483	64	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		215	08	-6.8	0.0	215	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-.64	34.144	27.47	62.82	0.000	14452						
OBS	2	-.64	34.144	27.47			14452	780	216	307	61	802	
STD	10	-.64	34.143	27.47	62.81	.006	14453						
STD	20	-.64	34.141	27.46	62.93	.013	14455						
OBS	23	-.64	34.140	27.46			14455	781	209	293	65	804	
STD	30	-.64	34.136	27.46	63.30	.019	14456						
OBS	43	-.63	34.129	27.45			14459	779	201	274	63	805	
STD	50	-.63	34.131	27.45	63.62	.032	14460						
OBS	64	-.62	34.135	27.46			14463	780	188	367	61	801	
STD	75	-.62	34.133	27.46	63.57	.047	14465						
OBS	85	-.62	34.131	27.45			14466	780	194	302	62	806	
STD	100	-.62	34.133	27.46	63.20	.063	14468						
OBS	129	-.63	34.138	27.46			14473	782	214	364	59	804	
STD	150	-.66	34.130	27.46	63.08	.095	14475						
OBS	172	-.61	34.131	27.45			14481	786	197	276	59	806	
STD	200	-.05	34.204	27.49	60.22	.126	14512						
STD	250	1.06	34.358	27.55	55.31	.155	14573						
OBS	262	1.35	34.400	27.56			14588	515	229	484	86	794	
STD	300	1.62	34.449	27.58	52.74	.182	14607						
OBS	353	1.73	34.488	27.60			14621	457	251	421	94	785	
STD	400	1.82	34.529	27.63	48.95	.232	14633						
STD	500	1.91	34.602	27.68	43.98	.279	14654						
OBS	542	1.91	34.628	27.70			14661	426	218	466	99	789	
STD	600	1.92	34.656	27.72	40.94	.321	14672						
STD	700	1.90	34.691	27.75	38.28	.361	14688						
OBS	728	1.89	34.698	27.76			14692	421	234		112	794	
STD	800	1.88	34.711	27.77	36.86	.399	14703						
STD	900	1.84	34.721	27.78	36.19	.435	14718						
OBS	906	1.84	34.721	27.78			14719	427	218	257	116	792	
STD	1000	1.75	34.724	27.79	35.55	.471	14730						
OBS	1113	1.63	34.725	27.80			14744	438	198	389	122	797	
OBS	1229	1.58	34.732	27.81			14761	444	207	409	127	798	
STD	1250	1.56	34.733	27.81	33.38	.557	14764						
OBS	1475	1.31	34.736	27.83			14790	457	194	384	127	796	
STD	1500	1.28	34.735	27.83	31.47	.638	14793						
OBS	1725	1.07	34.724	27.84			14821	469	243	401	141	795	
STD	1750	1.05	34.722	27.84	30.26	.715	14824						
OBS	1816	1.00	34.718	27.84			14833	471	239	458	117	795	7
STD	2000	.87	34.711	27.84	30.17	.791	14857						
OBS	2234	.72	34.705	27.85			14890	487	182	458	146	792	
STD	2250	.71	34.705	27.85	29.09	.865	14892						
OBS	2495	.58	34.699	27.85			14928	498	207	452	145	791	
STD	2500	.58	34.699	27.85	28.96	.938	14928						
STD	2750	.47	34.692	27.85	27.90	1.009	14966						
OBS	2753	.47	34.692	27.85			14967	501	186	466	151	789	
STD	3000	.31	0.000	0.00	0.00	0.000	0						
OBS	3034	0.00	0.000	0.00			0	520		429		792	
OBS	3147	.19	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	188	8SEP1963	1442	5500S	3358W	2220	483	53	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			250	7	-1.0	0.0	260	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.66	34.165	27.48	61.14	0.000	14451						
OBS	5	-.66	34.165	27.48			14451	740	171	325	54	812	
STD	10	-.66	34.153	27.47	61.98	.006	14452						
STD	20	-.66	34.136	27.46	63.21	.012	14454						
OBS	24	-.66	34.132	27.46			14454	779	216	403	50	814	
STD	30	-.66	34.130	27.46	63.63	.019	14455						
OBS	44	-.65	34.132	27.46			14457	768	207	352	49	815	
STD	50	-.65	34.131	27.46	63.52	.031	14459						
OBS	66	-.65	34.130	27.46			14461	780	207	345	53	814	
STD	75	-.65	34.134	27.46	63.36	.047	14463						
OBS	87	-.65	34.144	27.47			14464	739	215	340	48	817	
STD	100	-.75	34.167	27.49	60.09	.063	14463						
OBS	129	-.67	0.000	0.00			0	761	207	422	50	815	
STD	150	.21	34.268	27.53	56.82	.092	14517						
OBS	172	1.25	34.320	27.50			14560	551	233	353	70	810	
STD	200	1.69	34.362	27.51	59.41	.121	14592						
STD	250	1.87	34.426	27.54	56.16	.150	14609						
OBS	261	1.80	34.438	27.56			14601	462	234	467	75	808	
STD	300	1.94	34.486	27.59	52.48	.177	14622						
OBS	351	2.05	34.539	27.62			14628	420	205	419	85	803	
STD	400	2.09	34.570	27.64	48.06	.227	14645						
OBS	423	2.09	34.582	27.65			14642	402	223	384	95	802	
STD	500	2.08	34.630	27.69	43.40	.273	14662						
OBS	528	2.07	34.645	27.70			14659	407	245	452	97	801	
STD	600	2.00	34.665	27.73	41.02	.315	14676						
OBS	657	1.95	34.677	27.74			14675	416	231	319	99	804	
STD	700	1.94	34.691	27.75	38.66	.355	14689						
OBS	734	1.93	34.701	27.76			14687	415	225	324	101	803	
OBS	785	1.89	34.711	27.77			14694	398	235	461	109	805	
STD	800	1.87	34.713	27.77	36.65	.393	14703						
STD	900	1.75	34.721	27.79	35.27	.429	14714						
OBS	917	1.73	34.722	27.79			14708	432	232	390	113	807	
STD	1000	1.66	34.726	27.80	34.55	.464	14727						
OBS	1050	1.61	34.726	27.80			14725	435	241	383	113	807	
OBS	1183	1.44	34.719	27.81			14739	453	216	440	119	807	
STD	1250	1.35	34.721	27.82	32.25	.547	14754						
OBS	1324	1.27	34.723	27.83			14755	452	214	317	124	807	
OBS	1459	1.18	34.721	27.83			14774	439	199	381	125	805	
STD	1500	1.14	34.718	27.83	31.30	.627	14786						
OBS	1593	1.06	34.711	27.83			14790	471		390		807	
STD	1750	.95	34.704	27.83	30.53	.704	14819						
STD	2000	.83	34.703	27.84	30.29	.780	14856						
OBS	2032	.82	34.704	27.84			14853	481	191	380	131	803	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	189	9SEP1963	1230	5402S	3403W	2730	483	44	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		220	5	1.0	0.0	255	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.53	34.197	27.50	59.21	0.000	14457						
OBS	2	-.53	34.197	27.50			14457	788	138	335	64	802	
STD	10	-.53	34.151	27.47	62.70	.006	14458						
STD	20	-.53	34.111	27.43	65.67	.013	14459						
OBS	26	-.53	34.097	27.42			14460	784	181	384	64	806	
STD	30	-.53	34.099	27.43	66.51	.019	14461						
OBS	49	-.52	34.111	27.43			14464	782	167	354	54	811	
STD	50	-.52	34.111	27.43	65.54	.032	14465						
OBS	72	-.53	34.117	27.44			14468	780	175	314	63	810	
STD	75	-.53	34.120	27.44	64.97	.049	14468						
OBS	96	-.53	34.138	27.46			14472	780	204	393	66	807	
STD	100	-.56	34.134	27.45	63.42	.065	14471						
OBS	144	-.50	34.122	27.44			14481	778	202	459	58	810	
STD	150	-.32	34.145	27.45	63.51	.096	14491						
OBS	191	1.11	34.332	27.52			14565	563	197	467	83	798	
STD	200	1.27	34.360	27.53	56.56	.126	14574						
STD	250	1.84	34.478	27.59	52.04	.154	14609						
OBS	284	1.91	34.525	27.62			14618	437	218	366	102	793	
STD	300	1.95	34.545	27.63	48.17	.179	14623						
OBS	377	2.00	34.609	27.68			14638	414	205	408	97	787	
STD	400	2.01	34.620	27.69	43.63	.225	14643						
STD	500	2.01	34.657	27.72	40.78	.267	14660						
OBS	570	1.98	34.670	27.73			14669	412	217	398	126	787	
STD	600	1.96	34.680	27.74	39.53	.307	14674						
OBS	640	1.93	34.693	27.75			14679	416	195	302	107	786	
STD	700	1.88	34.711	27.77	36.68	.345	14687						
OBS	770	1.82	34.723	27.79			14696	426	186	331	120	787	
STD	800	1.78	34.721	27.79	35.22	.381	14699						
OBS	869	1.69	34.715	27.79			14706	437	244	280	106	793	
STD	900	1.66	34.720	27.79	34.56	.416	14710						
OBS	987	1.59	34.735	27.81			14721	441	234	372	121	782	
STD	1000	1.58	34.735	27.81	33.11	.450	14723						
OBS	1129	1.46	34.733	27.82			14739	448	210	423	159	796	7
OBS	1243	1.32	34.738	27.83			14752	461	181	462	145	796	7
STD	1250	1.31	34.737	27.83	30.53	.529	14752						
OBS	1390	1.04	34.723	27.84			14763	474	224	440	128	796	
STD	1500	.99	34.721	27.84	29.59	.604	14780						
OBS	1523	.99	34.721	27.84			14783	475	193	252	185	792	7
STD	1750	.78	34.719	27.86	27.65	.676	14812						
OBS	1798	.73	34.719	27.86			14817	489	243	471	146	793	
STD	2000	.59	34.714	27.86	26.96	.744	14845						
OBS	2079	.55	34.711	27.86			14856	494	167	465	151	795	
STD	2250	.47	34.703	27.86	26.42	.811	14881						
OBS	2369	.41	34.698	27.86			14899	505	217	433		794	
STD	2500	.34	34.694	27.86	26.54	.877	14918						
OBS	2563	.31	34.693	27.86			14927	503	230	440	135	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	190	10SEP1963	2028	5305S	3359W	2906	483	33	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		130	4	-1.2	0.0	200	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-.40	34.141	27.45	64.03	0.000	14463						
OBS	3	-.40	34.141	27.45			14463	799	192	437	48		
STD	10	-.40	34.150	27.46	63.30	.006	14464						
STD	20	-.40	34.158	27.47	62.60	.013	14466						
OBS	26	-.40	34.161	27.47			14467	797	251	398	50	816	
STD	30	-.40	34.160	27.47	62.43	.019	14468						
OBS	49	-.39	34.155	27.46			14471	797	214	344	48	819	
STD	50	-.39	34.154	27.46	62.82	.031	14471						
OBS	74	-.38	34.137	27.45			14475	794	236	303	47	820	
STD	75	-.38	34.137	27.45	64.31	.047	14476						
OBS	97	-.40	34.142	27.45			14478	792	225	438	53	811	
STD	100	-.40	34.142	27.45	63.49	.063	14479						
STD	150	-.36	34.143	27.45	63.40	.095	14489						
OBS	151	-.35	34.145	27.45			14489	786	196	475	62	820	
OBS	196	1.41	34.445	27.59			14580	508	181	404	74	816	
STD	200	1.48	34.458	27.60	50.61	.124	14584						
STD	250	1.65	34.561	27.67	44.27	.147	14601						
OBS	297	1.85	34.564	27.66			14618	431	234	465	82	817	
STD	300	1.85	34.566	27.66	45.75	.170	14619						
OBS	396	1.85	34.614	27.70			14634	420	227	465	90	818	
STD	400	1.85	34.616	27.70	42.61	.214	14636						
STD	500	1.84	34.660	27.73	39.02	.255	14652						
OBS	597	1.80	34.692	27.76			14666	429	207	405	108	811	
STD	600	1.80	34.693	27.76	37.16	.293	14667						
STD	700	1.72	34.710	27.78	35.26	.329	14680						
OBS	800	1.63	34.719	27.80			14692	440	238	366	99	817	
STD	800	1.63	34.719	27.80	33.98	.364	14692						
STD	900	1.56	34.727	27.81	33.07	.397	14706						
OBS	932	1.53	34.728	27.81			14709	449	238	415	121	812	
STD	1000	1.41	34.722	27.82	32.49	.430	14716						
OBS	1007	1.40	34.722	27.82			14716	460	207	341	102	815	
OBS	1073	1.37	34.732	27.83			14726	465	226	435	117	816	
OBS	1217	1.27	34.726	27.83			14745	458	220	450	153	818	7
STD	1250	1.24	34.722	27.83	31.07	.509	14749						
OBS	1365	0.00	34.711	0.00			0	471	227	344	135	809	
STD	1500	1.01	34.727	27.85	29.34	.585	14781						
OBS	1533	.98	34.731	27.85			14780	474	217	352	143	814	
STD	1750	.81	34.714	27.85	28.44	.657	14813						
OBS	1771	.80	34.711	27.85			14811	485	187	366	124	817	
STD	2000	.64	34.711	27.86	27.65	.727	14847						
OBS	2030	.62	34.711	27.86			14847	497	223	349	133	815	
STD	2250	.55	34.700	27.85	27.59	.796	14885						
OBS	2307	.53	34.697	27.85			14889	508	179	399	145	816	
STD	2500	.38	34.691	27.86	27.23	.865	14920						
OBS	2574	.31	34.690	27.86			14924	512	191	355	135	815	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 9	191	12SEP1963	2315	5300S	3758W	3473	483	37	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		250	5	-2.0	0.0	245	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.37	34.082	27.40	68.67	0.000	14463						
OBS	2	-.37	34.082	27.40			14463	815	181	307	47	799	
STD	10	-.36	34.082	27.40	68.66	.007	14465						
STD	20	-.36	34.081	27.40	68.64	.014	14467						
OBS	28	-.36	34.081	27.40			14468	809	099	299	43	802	
STD	30	-.36	34.081	27.40	68.65	.021	14468						
STD	50	-.38	34.080	27.40	68.55	.034	14471						
OBS	53	-.38	34.080	27.40			14471	811	233	284	33	800	
STD	75	-.40	34.087	27.41	68.00	.051	14474						
OBS	79	-.41	34.089	27.41			14474	809	205	373	62	803	
STD	100	-.46	34.095	27.42	66.83	.068	14475						
OBS	105	-.47	34.096	27.42			14475	802	190	307	59	811	
STD	150	-.45	34.106	27.43	65.82	.101	14484						
OBS	158	-.43	34.109	27.43			14486	801	178	366	68	809	
STD	200	-.20	34.140	27.44	64.35	.134	14504						
OBS	209	-.12	34.151	27.45			14509	747	196	342	93	801	
STD	250	.59	34.272	27.51	58.74	.165	14550						
STD	300	1.46	34.430	27.58	52.96	.193	14600						
OBS	313	1.69	34.473	27.60			14612		210	378	103	802	
STD	400	1.96	34.563	27.65	47.46	.243	14640						
OBS	416	1.94	34.570	27.65			14641	426	232	414	102	800	
STD	500	1.95	34.618	27.69	43.11	.288	14656						
STD	600	1.97	34.656	27.72	41.41	.330	14674						
OBS	622	1.97	34.661	27.72			14677	419	201	409	119	793	
STD	700	1.92	34.683	27.75	39.11	.371	14689						
OBS	779	1.87	34.697	27.76			14699	425	202	257	139	796	
STD	800	1.86	34.699	27.76	37.59	.409	14702						
OBS	827	1.85	34.701	27.77			14706	431	222	315	103	792	
STD	900	1.81	34.708	27.77	36.82	.446	14717						
STD	1000	1.74	34.716	27.79	36.10	.483	14730						
OBS	1051	1.70	34.719	27.79			14736	441	191	417	157	796	
STD	1250	1.55	34.723	27.81	34.05	.570	14763						
OBS	1319	1.50	34.723	27.81			14772	457	167	405	147	787	
STD	1500	1.34	34.722	27.82	32.99	.654	14795						
OBS	1582	1.26	34.721	27.82			14805	465	193	389	127	797	
STD	1750	1.11	34.718	27.83	31.20	.734	14826						
OBS	1840	1.03	34.716	27.84			14838	480	232	447	131	797	
STD	2000	.91	34.713	27.84	30.43	.811	14859						
OBS	2096	.84	34.746	27.87			14872	491	235	380	137	801	2
STD	2250	.76	34.705	27.85	29.59	.886	14894						
OBS	2374	.70	34.700	27.84			14912	494	211	438	150	803	
STD	2500	.65	34.692	27.84	30.28	.961	14931						
OBS	2642	.59	34.685	27.84			14953	500	163	429	127	807	
STD	2750	.53	34.685	27.84	29.17	1.036	14968						
OBS	2914	.44	34.685	27.85			14992	509	206	466	119	802	
STD	3000	.40	34.684	27.85	28.16	1.107	15005						
OBS	3183	.34	34.678	27.85			15034	519	166	478	101	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	192	13OCT1963	757	5509S	8233W	4793	488	52	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			0	7	5.0	0.0	345	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	4.83	34.225	27.10	97.27	0.000	14693						
OBS	2	4.83	34.225	27.10			14693	715	156	199	10	802	
STD	10	4.83	34.225	27.10	97.38	.010	14694						
STD	20	4.83	34.224	27.10	97.49	.019	14696						
STD	30	4.83	34.224	27.10	97.59	.029	14698						
OBS	31	4.83	34.224	27.10			14697	712	126	210	10	809	
STD	50	4.82	34.223	27.10	97.69	.049	14700						
OBS	60	4.81	34.224	27.10			14701	708	148	149	10	809	
STD	75	4.80	34.230	27.11	97.39	.073	14704						
OBS	88	4.79	34.236	27.12			14705	722	123	218	7	814	
STD	100	4.79	34.237	27.12	96.84	.097	14708						
OBS	118	4.80	34.236	27.11			14710	706	163	177	6	814	
STD	150	4.77	34.234	27.12	97.30	.146	14715						
OBS	175	4.74	34.232	27.12			14717	701	131	216	7	815	
STD	200	4.72	34.231	27.12	97.51	.195	14721						
OBS	229	4.71	34.231	27.12			14725	690	146	207	7	811	
STD	250	4.71	34.236	27.12	97.50	.243	14728						
STD	300	4.71	34.248	27.13	97.23	.292	14737						
OBS	343	4.71	34.256	27.14			14743	692	130	205	6	811	
STD	400	4.67	34.243	27.13	98.40	.390	14751						
OBS	458	4.61	34.225	27.13			14757	698	154	190	7	804	
STD	500	4.53	34.216	27.13	99.24	.489	14761						
STD	600	4.32	34.203	27.14	99.26	.588	14769						
OBS	682	4.12	34.202	27.16			14773	674	131	245	14	805	
STD	700	4.08	34.203	27.17	97.00	.686	14774						
STD	800	3.84	34.219	27.20	93.73	.781	14781						
STD	900	3.60	34.253	27.25	89.30	.873	14788						
OBS	915	3.57	34.260	27.26			14789	544	210	226	30	799	
STD	1000	3.44	34.309	27.31	84.19	.960	14798						
OBS	1148	3.12	34.427	27.44			14810	459	220	329	50	795	
STD	1250	2.65	34.536	27.57	59.49	1.139	14808						
OBS	1294	2.46	34.580	27.62			14808	408	191	254	83	791	
STD	1500	2.32	34.662	27.70	48.13	1.274	14837						
OBS	1501	2.32	34.662	27.70			14837	393	197	309	92	789	
OBS	1646	2.19	34.718	27.75			14856	404	137	313	98	789	
STD	1750	2.12	34.715	27.76	42.76	1.387	14871						
OBS	1869	2.04	34.700	27.75			14887	418	193	324	104	790	
STD	2000	1.93	34.708	27.77	42.61	1.494	14904						
OBS	2068	1.87	34.715	27.78			14913	414	148	265	106	792	
STD	2250	1.75	34.734	27.80	39.36	1.597	14938						
OBS	2304	1.72	34.739	27.81			14946	437	204	308	112	790	
STD	2500	1.59	34.739	27.82	38.59	1.694	14974						
OBS	2507	1.59	34.739	27.82			14975	442	150	302	112	790	
OBS	2738	1.45	0.000	0.00			0	460	222	307	115	792	
STD	2750	1.44	34.743	27.83	36.63	1.788	15009						
OBS	2946	1.28	34.743	27.84			14846	460	188	315	116	793	
STD	3000	1.23	34.737	27.84	35.24	1.878	15043						
STD	3250	1.01	34.718	27.84	33.75	1.964	15075						
OBS	3409	.88	34.715	27.85			14906	482	212	320	129	792	
STD	3500	.82	34.728	27.86	31.14	2.045	15110						
OBS	3581	.77	34.745	27.88			14931	480	216	273	126	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	193	14OCT1963	1225	5556S	8253W	5146	488	52	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		325	07	.2	0.0	300	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.94	0.000	0.00	0.00	0.000	0						
OBS	2	4.94	0.000	0.00			0	706	153	163	12	801	
STD	10	4.93	0.000	0.00	0.00	0.000	0						
STD	20	4.93	0.000	0.00	0.00	0.000	0						
STD	30	4.92	0.000	0.00	0.00	0.000	0						
OBS	31	4.92	34.189	27.06			14701	698	134	205	8	813	
STD	50	4.91	34.177	27.05	102.24	.010	14704						
OBS	59	4.91	34.178	27.06			14705	697	143	147	6	805	
STD	75	4.88	34.197	27.07	100.82	.036	14707						
OBS	87	4.86	34.213	27.09			14708	694	133	220	6	808	
STD	100	4.85	34.218	27.09	98.91	.061	14710						
OBS	116	4.85	34.220	27.10			14712	688	166	230	11	813	
STD	150	4.80	34.224	27.11	98.33	.110	14716						
OBS	171	4.76	34.224	27.11			14718	678	161	353	12	814	
STD	200	4.74	34.221	27.11	98.45	.159	14722						
OBS	226	4.73	34.218	27.11			14725	681	124	242	13	813	
STD	250	4.71	34.220	27.11	98.75	.208	14728						
STD	300	4.66	34.224	27.12	98.47	.258	14735						
OBS	332	4.63	34.228	27.13			14738	676	152	223	15	808	
STD	400	4.56	34.226	27.13	98.39	.356	14746						
OBS	440	4.51	34.224	27.14			14751	676	158	240	11	810	
STD	500	4.42	34.226	27.15	97.14	.454	14757						
STD	600	4.22	34.227	27.17	96.34	.551	14765						
OBS	658	4.09	34.232	27.19			14769	564	137	306	24	803	
STD	700	3.96	34.237	27.21	93.15	.645	14770						
STD	800	3.65	34.256	27.25	88.97	.736	14774						
OBS	895	3.37	34.282	27.30			14778	518	205	318		800	
STD	900	3.36	34.284	27.30	84.28	.823	14778						
STD	1000	3.18	34.329	27.36	79.72	.905	14787						
OBS	1137	2.99	34.398	27.43			14803	426	200	351		795	
STD	1250	2.86	34.444	27.48	68.68	1.091	14816						
STD	1500	2.61	34.534	27.57	60.87	1.252	14848						
STD	1750	2.39	34.606	27.65	53.89	1.396	14881						
STD	2000	2.20	34.662	27.71	49.27	1.525	14915						
STD	2250	2.04	34.700	27.75	45.51	1.643	14951						
OBS	2476	1.93	34.720	27.77			14984	446	189	326	133	794	7
STD	2500	1.91	34.721	27.78	44.04	1.755	14988						
STD	2750	1.73	34.722	27.79	42.00	1.863	15022						
OBS	2751	1.73	34.755	27.82			15023	425	161	302	98	794	2
STD	3000	1.57	34.724	27.81	40.76	1.966	15057						
OBS	3028	1.55	34.724	27.81			15062	436	174	318	105	794	
OBS	3124	1.51	34.724	27.81			15076	445	194	372	117	793	
STD	3250	1.42	34.729	27.82	38.75	2.066	15094						
STD	3500	1.22	34.735	27.84	36.42	2.160	15128						
OBS	3566	1.16	34.736	27.84			15137	471	147	339	143	793	
STD	3750	1.02	34.724	27.84	33.90	2.248	15162						
OBS	3839	.95	34.718	27.84			15175	486	172	362	120	789	
STD	4000	.85	34.719	27.85	32.18	2.330	15198						
OBS	4084	.81	34.720	27.85			15212	482	181	340		792	
OBS	4338	0.00	34.717	0.00			0	487	202	379	108	791	
STD	4500	.68	34.716	27.86	30.48	2.487	15278						
OBS	4858	.68	34.714	27.86			15342	484	213	267		795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	194	15OCT1963	2110	5702S	8254W	5201	488	72	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			270	5	5.0	0.0	295	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.67	34.246	27.14	94.00	0.000	14686						
OBS	4	4.67	34.246	27.14			14686	709	112	310	7	808	
STD	10	4.66	34.244	27.14	94.10	.009	14688						
STD	20	4.65	34.242	27.14	94.24	.019	14689						
OBS	27	4.64	34.240	27.14			14689	708	124	251	10	812	
STD	30	4.64	34.239	27.13	94.42	.028	14690						
STD	50	4.61	34.233	27.13	94.73	.047	14692						
OBS	52	4.61	34.233	27.13			14692	707	86	244	10	816	
STD	75	4.62	34.246	27.14	94.28	.071	14696						
OBS	76	4.62	34.247	27.14			14696	709	126	254	8	816	
OBS	100	4.62	34.237	27.14			14700	708	111	256	8	814	
STD	100	4.62	34.237	27.14	94.96	.094	14700						
STD	150	4.49	34.238	27.15	93.99	.142	14703						
OBS	151	4.49	34.238	27.15			14703	702	133	258	8	814	
OBS	197	4.44	34.234	27.15			14708	702	161	253	11	811	
STD	200	4.44	34.234	27.15	94.17	.189	14709						
STD	250	4.38	34.232	27.16	94.20	.236	14714						
OBS	295	4.32	34.230	27.16			14719	699	171	254	13	814	
STD	300	4.31	34.230	27.16	94.21	.283	14720						
OBS	394	4.19	34.222	27.17			14729	687	158	264	10	817	
STD	400	4.18	34.222	27.17	94.54	.377	14730						
STD	500	4.04	34.217	27.18	93.57	.471	14740						
OBS	593	3.87	34.214	27.20			14748	680	183	275	14	811	
STD	600	3.85	34.213	27.20	93.21	.565	14749						
STD	700	3.59	34.212	27.22	90.93	.657	14754						
STD	800	3.34	34.210	27.25	88.82	.747	14760						
OBS	822	3.28	34.210	27.25			14760	611	201	314	24	802	
STD	900	3.14	34.222	27.27	86.42	.834	14767						
STD	1000	2.99	34.271	27.33	82.00	.919	14778						
OBS	1021	2.97	34.286	27.34			14780	530	206	334	41	799	
OBS	1083	2.91	34.355	27.40			14789	482	180	377	51	797	
STD	1250	2.72	34.447	27.49	66.92	1.105	14810						
OBS	1347	2.62	34.473	27.52			14822	431	231	381	68	799	
STD	1500	2.51	34.540	27.58	59.26	1.262	14844						
OBS	1632	2.43	34.593	27.63			14862	418	217	373	81	795	
STD	1750	2.35	34.633	27.67	51.52	1.401	14880						
OBS	1865	2.28	34.665	27.70			14896	409	171	374	83	794	
STD	2000	2.20	34.686	27.73	47.64	1.525	14916						
OBS	2135	2.13	34.698	27.74			14935	416	229	375	84	793	
STD	2250	2.05	34.708	27.76	45.09	1.641	14951						
STD	2500	1.88	34.723	27.78	43.49	1.751	14986						
OBS	2674	1.76	34.729	27.79			15010	438	200	355	103	797	
STD	2750	1.71	34.729	27.80	41.28	1.857	15021						
STD	3000	1.56	34.728	27.81	40.38	1.959	15057						
OBS	3219	1.43	34.728	27.82			15089	462					
STD	3250	1.41	34.728	27.82	38.62	2.058	15093						
STD	3500	1.24	34.727	27.83	37.30	2.153	15129						
STD	3750	1.08	34.726	27.84	34.62	2.243	15165						
OBS	3773	1.06	34.726	27.84			15168	472	232	356	129	795	
STD	4000	.91	34.725	27.85	32.57	2.327	15201						
OBS	4357	.73	34.695	27.84			15255	497	174	368	116	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	195	16OCT1963	2335	5758S	8303W	4925	488	73	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		230	05	4.0	0.0	235	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.92	34.257	27.12	95.84	0.000	14697						
OBS	2	4.92	34.257	27.12			14697	724	129	254	7	809	
STD	10	4.94	34.252	27.11	96.46	.010	14699						
STD	20	4.95	34.248	27.11	97.02	.019	14701						
OBS	30	4.96	34.246	27.10			14703	697	158	228	12	818	
STD	30	4.96	34.246	27.10	97.35	.029	14703						
STD	50	4.95	34.249	27.11	97.19	.048	14706						
OBS	58	4.94	34.250	27.11			14707	704	111	222	10	817	
STD	75	4.95	34.247	27.11	97.82	.073	14710						
OBS	86	4.96	34.245	27.10			14712	697	117	239	6	815	
STD	100	4.96	34.247	27.11	97.85	.097	14714						
OBS	115	4.95	34.314	27.16			14718	698	136	235	6	814	2
STD	150	4.94	34.255	27.11	97.61	.146	14722						
OBS	171	4.93	34.257	27.12			14725	696	149	264	7	815	
STD	200	4.89	34.247	27.11	98.23	.195	14728						
OBS	229	0.00	34.234	0.00			0	697	156	254	4	816	
STD	250	4.82	34.230	27.11	99.14	.244	14733						
STD	300	4.72	34.224	27.11	99.14	.294	14737						
OBS	342	4.63	34.271	27.16			14741	693	161	278	4	813	2
STD	400	4.52	34.226	27.14	97.95	.393	14744						
OBS	456	4.40	34.223	27.15			14749	683	148	316	5	810	
STD	500	4.30	34.214	27.15	96.64	.490	14751						
STD	600	4.03	34.214	27.18	95.19	.586	14757						
OBS	686	3.78	34.208	27.20			14760	601	201	367	22	804	
STD	700	3.73	34.216	27.21	92.12	.679	14760						
STD	800	3.36	34.273	27.29	84.40	.768	14761						
STD	900	3.04	34.337	27.38	76.79	.848	14765						
OBS	925	2.96	34.354	27.40			14767	534	171	344	43	788	
STD	1000	2.87	34.372	27.42	73.14	.923	14774						
OBS	1169	2.77	34.403	27.45			14799	444	229	341	37	795	
STD	1250	2.73	34.447	27.49	66.93	1.098	14810						
STD	1500	2.59	34.575	27.60	57.57	1.254	14847						
OBS	1625	0.00	34.636	0.00			0	408	199	377	76	792	
STD	1750	2.44	34.651	27.68	51.31	1.390	14884						
OBS	1881	2.36	34.657	27.69			14905	412	182	328	85		
STD	2000	2.26	34.675	27.71	49.08	1.516	14918						
OBS	2137	2.13	34.778	27.81			14939	419	163	369	94	792	2
STD	2250	2.02	34.709	27.76	44.61	1.633	14950						
OBS	2394	1.88	34.726	27.78			14971	434	202	230	106	791	
STD	2500	1.78	34.730	27.79	41.70	1.741	14982						
OBS	2645	1.67	34.733	27.80			15004	437	174	364	109	790	
STD	2750	1.61	34.733	27.81	39.56	1.842	15017						
OBS	2906	1.53	34.795	27.86			15044	453	193	317	113	792	2
STD	3000	1.48	34.733	27.82	38.97	1.940	15054						
OBS	3161	1.40	34.733	27.82			15081	458	157	329	118	793	
STD	3250	1.34	34.733	27.83	37.22	2.036	15090						
STD	3500	1.15	34.733	27.84	35.49	2.126	15125						
OBS	3678	1.00	0.000	0.00			0	471	201	349	132	791	
STD	3750	.94	34.733	27.86	32.13	2.211	15159						
STD	4000	.75	34.733	27.87	29.65	2.288	15194						
OBS	4199	.63	34.697	27.85			15227	490	157	388	140	793	
STD	4500	.54	0.000	0.00	0.00	0.000	0						
STD	5000	.60	0.000	0.00	0.00	0.000	0						
OBS	5017	.61	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	196	18OCT1963	1145	5915S	8251W	5088	488	92	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	04	3.0	0.0	280	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	4.74	34.251	27.13	94.36	0.000	14689						
OBS	2	4.74	34.251	27.13			14690	707		226	11	813	
STD	10	4.74	34.245	27.13	94.87	.009	14691						
STD	20	4.74	34.240	27.12	95.32	.019	14693						
OBS	29	4.74	34.238	27.12			14694	701		214	12	818	
STD	30	4.74	34.238	27.12	95.53	.029	14694						
STD	50	4.67	34.242	27.13	94.67	.048	14695						
OBS	57	4.64	34.244	27.14			14694	696		196	11	818	
STD	75	4.56	34.239	27.14	94.26	.071	14694						
OBS	83	4.53	34.235	27.14			14694	705		226	12	820	
STD	100	4.49	34.228	27.14	94.30	.095	14695						
OBS	112	4.47	34.223	27.14			14696	699		219	15	819	
STD	150	4.37	34.223	27.15	93.84	.142	14698						
OBS	165	4.33	34.224	27.16			14699	696		224	14	816	
STD	200	4.23	34.217	27.16	93.24	.189	14700						
OBS	217	4.18	34.213	27.16			14701	687		190	18	814	
STD	250	4.10	34.213	27.17	92.64	.235	14703						
STD	300	3.98	34.214	27.19	91.83	.281	14706						
OBS	327	3.91	34.214	27.19			14707	688		175	24	811	
STD	400	3.67	34.208	27.21	90.15	.372	14709						
OBS	439	3.54	34.205	27.22			14709	644		247	35	808	
STD	500	3.36	34.206	27.24	87.26	.461	14712						
STD	600	3.11	34.218	27.27	85.01	.547	14717						
OBS	661	2.99	34.233	27.30			14722	583		244	57	809	
STD	700	2.95	34.248	27.31	81.43	.630	14727						
STD	800	2.86	34.295	27.36	77.47	.710	14740						
OBS	892	2.80	34.347	27.40			14754	485		239	33	803	7
STD	900	2.79	34.352	27.41	73.10	.785	14754						
STD	1000	2.66	34.411	27.47	68.02	.855	14766						
OBS	1124	2.51	34.486	27.54			14781	432		326	74	797	
STD	1250	2.44	34.558	27.60	55.56	1.010	14800						
OBS	1352	2.40	34.608	27.65			14816	406		384	77	798	
STD	1500	2.33	34.659	27.69	48.47	1.140	14837						
OBS	1597	2.28	34.680	27.71			14852	407		355	89	805	
STD	1750	2.20	34.692	27.73	45.42	1.257	14874						
OBS	1842	2.15	34.695	27.74			14887	417		336	92	805	
STD	2000	2.06	34.714	27.76	43.83	1.369	14910						
OBS	2085	2.01	34.723	27.77			14922	419		353	101	806	
STD	2250	1.88	34.727	27.78	41.49	1.476	14944						
OBS	2343	1.80	34.726	27.79			14956	433		295	96	799	
STD	2500	1.71	34.725	27.80	41.09	1.579	14979						
STD	2750	1.57	34.726	27.81	39.57	1.680	15015						
OBS	2842	1.52	34.766	27.84			15029	452		299	96	804	2
STD	3000	1.40	34.724	27.82	38.52	1.777	15050						
STD	3250	1.22	34.721	27.83	36.41	1.871	15085						
OBS	3352	1.14	34.719	27.83			15099	470		258	111	801	
STD	3500	1.05	34.718	27.84	35.12	1.960	15120						
STD	3750	.91	34.716	27.84	32.82	2.045	15157						
OBS	3863	.85	34.712	27.84			15175	486			87	804	7
STD	4000	.77	0.000	0.00	0.00	0.000	0						
STD	4500	.61	0.000	0.00	0.00	0.000	0						
OBS	4852	.55	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	197	19OCT1963	1645	5959S	8305W	5055	488	93	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			170	04	2.0	0.0	240	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	4.11	34.244	27.20	88.42	0.000	14663						
OBS	2	4.11	34.244	27.20			14663	711	143	138	21	810	
STD	10	4.10	34.238	27.19	88.84	.009	14664						
STD	20	4.09	34.231	27.19	89.29	.018	14665						
OBS	30	4.08	34.226	27.18			14666	711	117	225	20	809	
STD	30	4.08	34.226	27.18	89.67	.027	14666						
STD	50	4.07	34.219	27.18	90.23	.045	14669						
OBS	57	4.07	34.218	27.18			14670	754	135	142	18	808	
STD	75	4.08	34.220	27.18	90.74	.067	14674						
OBS	84	4.09	34.221	27.18			14675	713	144	166	21	807	
STD	100	4.09	34.220	27.18	90.71	.090	14678						
OBS	112	4.08	34.218	27.18			14680	709	107	215	23	807	
STD	150	4.07	34.214	27.18	91.37	.136	14685						
OBS	169	4.06	34.212	27.18			14688	709	144	199	11	808	
STD	200	4.04	34.210	27.18	91.73	.181	14692						
OBS	224	4.01	34.209	27.18			14695	704	114	212	11	806	
STD	250	4.00	34.207	27.18	92.11	.227	14698						
STD	300	3.91	34.201	27.18	92.11	.273	14703						
OBS	333	3.80	34.196	27.19			14703	675	66	185	12	805	
STD	400	3.20	34.181	27.24	87.44	.363	14688						
OBS	442	2.81	34.173	27.26			14678	663	149	193	9	803	
STD	500	2.82	34.175	27.26	84.27	.449	14688						
STD	600	2.85	34.196	27.28	84.01	.533	14706						
OBS	657	2.86	34.219	27.30			14716	587	157	259	12	798	7
STD	700	2.84	34.244	27.32	80.65	.615	14722						
STD	800	2.78	34.308	27.37	75.74	.694	14737						
OBS	875	2.72	34.359	27.42			14747	480	163	259	58	790	
STD	900	2.70	34.372	27.43	70.68	.767	14751						
STD	1000	2.62	34.420	27.48	66.92	.836	14764						
OBS	1100	2.54	34.465	27.52			14778	425	204	249	68	785	
STD	1250	2.45	34.541	27.59	56.91	.990	14800						
OBS	1348	2.39	34.585	27.63			14814	406	209	220	75	783	
STD	1500	2.29	34.631	27.67	50.09	1.124	14835						
OBS	1597	2.23	34.652	27.70			14849	412	166	329	87	785	
STD	1750	2.16	34.680	27.72	45.79	1.244	14872						
OBS	1860	2.10	34.694	27.74			14888	417	215	315	92	790	
STD	2000	2.00	34.706	27.76	43.64	1.356	14907						
OBS	2126	1.90	34.712	27.77			14924	422	157	333	96	788	
STD	2250	1.81	34.717	27.78	41.38	1.462	14941						
OBS	2385	1.72	34.761	27.82			14961	440	153	248	90	788	2
STD	2500	1.64	34.723	27.80	40.41	1.564	14976						
OBS	2658	1.54	34.723	27.81			14998	447	142	257	97	788	
STD	2750	1.49	34.722	27.81	38.72	1.663	15011						
STD	3000	1.34	34.718	27.82	38.12	1.759	15047						
OBS	3189	1.23	34.712	27.82			15075	466	165	339	106	787	
STD	3250	1.18	34.709	27.82	36.75	1.853	15083						
STD	3500	1.00	34.700	27.83	35.71	1.943	15118						
OBS	3718	.84	34.693	27.83			15149	479	194	292	114	788	
STD	3750	.82	34.693	27.83	33.15	2.030	15153						
STD	4000	.67	34.695	27.84	31.06	2.110	15190						
OBS	4247	.56	34.696	27.85			15229	496	90	318	108	786	
STD	4500	.53	34.707	27.86	28.69	2.259	15272						
OBS	4775	.54	34.727	27.88			15322	512	196		125	785	
STD	5000	.53	0.000	0.00	0.00	0.000	0						
OBS	5192	.53	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	198	20OCT1963	2035	6057S	8250W	4905	524	2	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			280	5	1.8	0.0	280	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.70	33.936	27.30	78.51	0.000	14446						
OBS	2	-.70	33.936	27.30			14446		103	179	15	793	
STD	10	-.71	33.917	27.29	79.84	.008	14447						
STD	20	-.74	33.903	27.27	80.80	.016	14447						
OBS	25	-.75	33.899	27.27			14447		136	194	14	804	
STD	30	-.77	33.902	27.28	80.69	.024	14447						
OBS	48	-.83	33.915	27.29			14447		300	237	20	807	
STD	50	-.83	33.914	27.29	79.39	.040	14447						
OBS	71	-.86	33.897	27.28			14449		121	237	20	807	
STD	75	-.86	33.896	27.27	80.73	.060	14450						
OBS	93	-.85	33.897	27.27			14453		127	291	16	808	
STD	100	-.86	33.895	27.27	80.40	.080	14454						
OBS	139	-.83	33.902	27.28			14462		176	226	16	809	
STD	150	-.74	33.916	27.29	79.08	.120	14468						
OBS	184	-.35	33.974	27.32			14492		157	293	28	805	
STD	200	-.10	34.009	27.33	74.77	.159	14507						
STD	250	.63	34.114	27.38	70.98	.195	14550						
OBS	268	.88	34.150	27.39			14564		197	225	33	802	
STD	300	1.10	34.185	27.41	68.80	.230	14580						
OBS	360	1.34	34.232	27.43			14601		128	333	44	799	
STD	400	1.53	34.268	27.44	66.23	.297	14617						
STD	500	1.93	34.356	27.48	62.65	.362	14652						
OBS	548	2.08	34.396	27.50			14666		125	240	60	791	
STD	600	2.16	34.438	27.53	59.43	.423	14679						
STD	700	2.18	34.509	27.59	54.41	.480	14697						
OBS	752	2.21	34.542	27.61			14707		241	324	71	789	
STD	800	2.21	34.576	27.64	50.02	.532	14716						
STD	900	2.16	34.648	27.70	44.71	.579	14731						
OBS	970	2.10	34.626	27.69			14739		115	420	77	786	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	199	23OCT1963	247	6226S	8311W	4808	524	23	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	6	2.2	0.0	310	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.03	34.170	27.33	76.00	0.000	14573						
OBS	1	2.03	34.170	27.33			14573	754		354	24	801	
STD	10	2.02	34.150	27.31	77.49	.008	14574						
STD	20	2.01	34.134	27.30	78.66	.015	14575						
OBS	23	2.01	34.130	27.30			14575	749		372	19	803	
STD	30	2.01	34.128	27.29	79.06	.023	14576						
OBS	47	1.99	34.123	27.29			14578	753		200	14	806	
STD	50	1.98	34.131	27.30	78.65	.039	14578						
OBS	69	1.90	34.174	27.34			14578	757		382	13	807	
STD	75	1.88	34.163	27.33	75.77	.058	14578						
OBS	95	1.78	34.116	27.30			14576	761		347	10	809	
STD	100	1.70	34.121	27.31	77.49	.078	14574						
OBS	144	.98	34.183	27.41			14549	762		402	11	810	
STD	150	.93	34.177	27.41	68.00	.114	14548						
OBS	193	.76	34.114	27.37			14546	772		366	29	807	
STD	200	.76	34.117	27.37	71.53	.149	14548						
STD	250	.87	34.140	27.38	70.54	.184	14561						
OBS	297	1.08	34.105	27.34			14577	710		416	28	804	2
STD	300	1.09	34.116	27.35	74.01	.221	14579						
STD	400	1.40	34.203	27.40	70.11	.293	14610						
OBS	407	1.42	34.212	27.41			14612	627		417	35	803	
STD	500	1.82	34.302	27.45	65.74	.360	14646						
STD	600	2.19	34.400	27.50	62.58	.425	14680						
OBS	626	2.28	34.426	27.51			14688	456		478	60	794	
STD	700	2.30	34.458	27.53	59.47	.486	14702						
STD	800	2.33	34.514	27.58	55.89	.543	14721						
OBS	851	2.35	34.549	27.60			14730	416		488	69	790	
OBS	897	2.32	34.606	27.65			14737	408		441	77	793	
STD	900	2.32	34.608	27.65	49.25	.596	14738						
STD	1000	2.27	34.639	27.68	47.10	.644	14752						
OBS	1078	2.24	34.634	27.68			14764	413		487	72	791	
OBS	1142	2.21	34.654	27.70			14773	412		505	79	791	
STD	1250	2.16	34.675	27.72	43.83	.758	14789						
OBS	1396	0.00	34.693	0.00			0	428		393	82	794	
STD	1500	2.03	34.704	27.75	41.70	.865	14825						
OBS	1646	1.94	34.716	27.77			14727	436		453	85	791	
STD	1750	1.87	34.720	27.78	39.51	.966	14860						
OBS	1895	1.77	34.724	27.79			14761	447		423	88	793	
STD	2000	1.69	34.727	27.80	38.34	1.063	14894						
OBS	2156	1.56	34.730	27.81			14795	456		466	88	792	
STD	2250	1.48	34.731	27.82	36.27	1.157	14927						
OBS	2395	1.37	34.730	27.82			14826	461		366	101	796	
STD	2500	1.30	34.725	27.82	35.96	1.247	14961						
OBS	2650	1.22	34.716	27.82			14862	472		450	106	797	
STD	2750	1.16	34.716	27.83	34.88	1.336	14997						
STD	3000	1.02	34.716	27.84	33.84	1.422	15033						
OBS	3155	.93	34.716	27.84			14935	480		416	111	796	
STD	3250	.88	34.713	27.84	32.22	1.504	15070						
STD	3500	.74	34.706	27.85	31.64	1.584	15107						
OBS	3656	.67	34.703	27.85			15009	494		414	125	796	
STD	3750	.63	34.707	27.85	29.45	1.660	15145						
STD	4000	.55	34.714	27.87	27.88	1.732	15185						
OBS	4062	.53	34.715	27.87			15073	501		432	118		
OBS	4387	.47	34.692	27.85			15126	496		366	101	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	200	23OCT1963	1745	6303S	8257W	4740	524	32	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			270	4	- .2	0.0	270	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.82	33.943	27.31	77.53	0.000	14440						
OBS	2	-.82	33.943	27.31			14440	819	204	225	28	810	
STD	10	-.83	33.930	27.30	78.42	.008	14441						
STD	20	-.85	33.919	27.29	79.13	.016	14442						
OBS	23	-.85	33.917	27.29			14442	821	165	176	16	813	
STD	30	-.86	33.918	27.29	79.11	.024	14443						
OBS	46	-.87	33.920	27.29			14445	820	220	149	28	814	
STD	50	-.89	33.917	27.29	78.95	.039	14445						
OBS	67	-.88	33.910	27.29			14448	820	120	328	29	815	
STD	75	-.70	33.923	27.29	79.31	.059	14458						
OBS	92	-.20	33.963	27.30			14484	808	258	289	23	814	
STD	100	.03	33.985	27.31	77.49	.079	14496						
OBS	138	.76	34.065	27.33			14537	763	179	338	26	812	
STD	150	.71	34.061	27.33	75.41	.117	14537						
OBS	183	.45	34.041	27.33			14529	770	231	323	39	810	
STD	200	.61	34.062	27.34	74.77	.155	14540						
STD	250	1.23	34.143	27.36	72.77	.191	14577						
OBS	278	1.67	34.201	27.38			14602	626	204	369	52	806	
STD	300	1.75	34.222	27.39	70.85	.227	14610						
OBS	376	1.82	34.278	27.43			14625	562	223	344	51	803	
STD	400	1.87	34.297	27.44	66.77	.296	14632						
STD	500	2.08	34.374	27.49	62.50	.361	14658						
OBS	580	2.22	34.432	27.52			14678	502	210	299	60	797	
STD	600	2.24	34.446	27.53	59.57	.422	14683						
STD	700	2.25	34.507	27.58	55.24	.479	14700						
OBS	799	2.27	34.558	27.62			14718	418	227	377	68	795	
STD	800	2.27	34.558	27.62	51.96	.533	14718						
STD	900	2.25	34.590	27.64	49.88	.584	14734						
STD	1000	2.21	34.619	27.67	47.94	.633	14749						
OBS	1022	2.20	34.625	27.68			14752	416	196	390	66	794	
OBS	1096	2.16	34.655	27.70			14763	417	142	404	77	794	
STD	1250	2.09	34.686	27.73	42.33	.745	14786						
OBS	1387	2.03	34.698	27.75			14806	434	156	255	70	798	
STD	1500	1.96	34.711	27.77	40.47	.849	14822						
OBS	1675	1.84	34.725	27.79			14846	441	132	375	93	798	
STD	1750	1.78	34.725	27.79	38.09	.947	14856						
OBS	1960	1.60	34.721	27.80			14883	450	181	356	88	797	
STD	2000	1.58	34.723	27.80	37.30	1.041	14889						
STD	2250	1.43	34.736	27.82	35.32	1.132	14925						
OBS	2254	1.43	34.736	27.82			14925	458	189	381	92	794	
STD	2500	1.25	34.728	27.83	34.97	1.220	14959						
OBS	2524	1.23	34.727	27.83			14962	465	256	339	101	794	
STD	2750	1.10	34.711	27.83	34.44	1.307	14994						
OBS	2808	1.07	34.707	27.83			15003	482	228	328	116	796	
STD	3000	.96	34.707	27.83	33.82	1.392	15031						
STD	3250	.83	34.706	27.84	32.13	1.475	15068						
OBS	3377	.77	34.688	27.83			15087	491	223	352	115	794	2
STD	3500	.70	34.706	27.85	31.09	1.554	15105						
STD	3750	.59	34.705	27.86	28.94	1.629	15143						
OBS	3942	.52	0.000	0.00			0	501	242	410	119	795	
STD	4000	.51	34.705	27.86	28.02	1.700	15183						
OBS	4278	.49	34.704	27.86			15269	502	275	383	110	793	
STD	4500	.47	34.699	27.86	28.21	1.840	15269						
OBS	4663	.45	34.695	27.86			15335	499	253	331	135	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	201	25OCT1963	555	6352S	8311W	4660	524	33	19				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		250	06	- .5	0.0	260	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.34	33.908	27.30	78.53	0.000	14416						
OBS	2	-1.34	33.908	27.30			14416	816	148	251	5	801	
STD	10	-1.33	33.890	27.29	79.87	.008	14417						
STD	20	-1.33	33.879	27.28	80.61	.016	14419						
OBS	25	-1.33	33.879	27.28			14420	778	170	307	28	811	4
STD	30	-1.33	33.891	27.29	79.65	.024	14421						
OBS	50	-1.34	33.930	27.32			14424	811	158	308	28	813	
STD	50	-1.34	33.930	27.32	76.44	.040	14424						
OBS	73	-1.35	33.872	27.27			14426		156	374	19	817	
STD	75	-1.35	33.870	27.27	81.04	.059	14427						
OBS	100	-1.37	33.872	27.27			14430	822	190	364	20	815	
STD	100	-1.37	33.872	27.27	80.43	.079	14430						
OBS	150	-1.38	33.923	27.31			14438	788	163	363	25	817	
STD	150	-1.38	33.923	27.31	76.16	.119	14438						
STD	200	.45	34.114	27.39	69.86	.155	14534						
OBS	201	.49	34.118	27.39			14536	707				811	
STD	250	1.13	34.198	27.41	67.90	.190	14573						
STD	300	1.23	34.235	27.44	65.91	.223	14586						
OBS	306	1.27	34.237	27.44			14589	607	202	359	52	807	
STD	400	1.73	34.341	27.49	62.27	.287	14626						
STD	500	2.05	34.438	27.54	57.49	.347	14658						
STD	600	2.21	34.520	27.59	53.72	.403	14682						
OBS	630	2.22	34.542	27.61			14688	421	220	360	69	800	
STD	700	2.23	34.578	27.64	49.82	.454	14701						
STD	800	2.19	34.617	27.67	46.79	.503	14716						
OBS	807	2.18	34.619	27.67			14717	413		400		798	
STD	900	2.15	34.647	27.70	44.66	.548	14731						
STD	1000	2.12	34.672	27.72	43.01	.592	14746						
STD	1250	1.99	34.714	27.76	39.26	.695	14782						
OBS	1368	1.92	34.722	27.78			14799	442	238	360	76	803	
STD	1500	1.82	34.730	27.79	37.49	.791	14816						
OBS	1655	1.69	34.734	27.80			14837	445	242	227	92	802	
STD	1750	1.62	34.731	27.81	35.88	.883	14849						
OBS	1930	1.50	0.000	0.00			0	462	241	372	96	798	
STD	2000	1.46	34.722	27.81	36.05	.973	14884						
OBS	2217	1.35	34.715	27.81			14917	459	197	393	75	797	7
STD	2250	1.33	34.717	27.82	35.45	1.062	14920						
OBS	2497	1.16	34.727	27.84			14956	468	251	376	105	804	
STD	2500	1.16	34.727	27.84	33.96	1.149	14955						
STD	2750	1.03	34.718	27.84	33.05	1.232	14991						
OBS	2794	1.01	34.716	27.84			15000	768	212	398	114	804	
STD	3000	.90	34.716	27.84	32.28	1.314	15028						
OBS	3075	.86	34.716	27.85			15041	480	246	371	134	799	
STD	3250	.79	34.713	27.85	31.00	1.393	15066						
OBS	3366	.74	34.709	27.85			15086	487	236	383	128	798	
STD	3500	.68	0.000	0.00	0.00	0.000	0						
STD	3750	.58	0.000	0.00	0.00	0.000	0						
OBS	3927	.52	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	202	26OCT1963	1645	6449S	8308W	4545	524	43	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			205	06	-5.7	0.0	225	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-1.50	33.897	27.30	78.93	0.000	14408						
OBS	2	-1.50	33.897	27.30			14408	826	190	288	30	811	
STD	10	-1.51	33.881	27.28	80.06	.008	14409						
STD	20	-1.51	33.867	27.27	81.03	.016	14410						
OBS	26	-1.51	33.862	27.27			14411	821	227	284	30	812	
STD	30	-1.51	33.863	27.27	81.29	.024	14412						
OBS	49	-1.50	33.865	27.27			14415	822	209	207	31	811	
STD	50	-1.50	33.865	27.27	80.96	.040	14416						
OBS	74	-1.48	33.867	27.27			14420	822	222	290	30	811	
STD	75	-1.48	33.867	27.27	80.93	.061	14420						
OBS	98	-1.48	33.873	27.28			14424	813	218	234	29	812	
STD	100	-1.45	33.878	27.28	79.73	.081	14426						
OBS	149	-.25	34.040	27.36			14492	736	252	301	35	808	
STD	150	-.23	34.043	27.37	71.72	.119	14494						
OBS	199	.75	34.146	27.40			14547	728	245	262	40	804	
STD	200	.76	34.148	27.40	69.20	.154	14548						
STD	250	1.21	34.224	27.43	66.45	.188	14577						
OBS	300	1.40	34.287	27.47			14595	573	272	325	52	799	
STD	300	1.40	34.287	27.47	63.29	.220	14595						
STD	400	1.84	34.410	27.53	58.02	.281	14632						
OBS	404	1.85	34.414	27.54			14633	483	237	300	63	796	
STD	500	2.04	34.485	27.58	53.88	.337	14659						
STD	600	2.12	34.536	27.61	51.72	.390	14679						
OBS	615	2.12	34.542	27.62			14681	415	284	374	86	791	
STD	700	2.12	34.582	27.65	48.48	.440	14696						
STD	800	2.12	34.624	27.68	45.65	.487	14713						
OBS	827	2.12	34.634	27.69			14717	412	277	295	79	790	
STD	900	2.10	34.666	27.72	42.76	.531	14729						
STD	1000	2.07	34.704	27.75	40.23	.572	14745						
OBS	1048	2.05	34.719	27.76			14752	422	282	349	82	793	
STD	1250	1.94	34.737	27.79	37.03	.669	14781						
OBS	1315	1.90	34.736	27.79			14790	438	274	314	95	794	
STD	1500	1.74	34.742	27.81	35.79	.760	14813						
OBS	1593	1.65	34.742	27.81			14825	452	279	345	106	796	
STD	1750	1.53	34.737	27.82	34.38	.848	14845						
OBS	1874	1.44	34.732	27.82			14862	462	285	337	105	793	
STD	2000	1.36	34.732	27.83	34.16	.933	14880						
OBS	2141	1.28	34.680	27.79			14899	467	294	280	110	794	2
STD	2250	1.22	34.731	27.84	33.10	1.017	14915						
OBS	2410	1.13	34.730	27.84			14939	472	300	350	116	792	
STD	2500	1.07	34.725	27.84	33.00	1.100	14951						
OBS	2677	.96	34.717	27.84			14976	475	308	304	132	793	
STD	2750	.93	34.717	27.84	31.78	1.181	14987						
OBS	2956	.84	34.719	27.85			15019	479	299	299	129	793	
STD	3000	.82	34.719	27.85	31.06	1.260	15025						
STD	3250	.71	34.715	27.86	29.88	1.336	15063						
OBS	3281	.70	34.714	27.86			15068	486	284	367	129	788	
STD	3500	.59	34.709	27.86	29.21	1.410	15100						
OBS	3615	.53	34.706	27.86			15118	498	308	356	137	791	
STD	3750	.49	34.704	27.86	27.66	1.481	15139						
STD	4000	.45	34.700	27.86	27.32	1.549	15181						
OBS	4057	.44	34.700	27.86			15191	500	307	290	137	793	
STD	4500	.39	0.000	0.00	0.00	0.000	0						
OBS	4536	.39	0.000	0.00			0						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	203	28OCT1963	418	6554S	8254W	4393	524	52	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		275	5	-2.0	0.0	260	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔΔ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.78	33.893	27.30			14395	185	124	293	44	805	
STD	0	-1.78	33.893	27.30	78.56	0.000	14395						
STD	10	-1.79	33.870	27.28	80.22	.008	14395						
STD	20	-1.80	33.855	27.27	81.26	.016	14396						
OBS	24	-1.80	33.851	27.27			14397	784	148	313	39	806	
STD	30	-1.80	33.852	27.27	81.39	.024	14398						
OBS	46	-1.79	33.854	27.27			14401	777	168	292	31	806	
STD	50	-1.80	33.852	27.27	81.20	.040	14401						
OBS	69	-1.80	33.850	27.27			14404	113	196	307		812	
STD	75	-1.77	33.855	27.27	81.06	.061	14407						
OBS	93	-1.50	33.896	27.30			14423	755	159	333	29	807	
STD	100	-1.19	33.943	27.32	75.55	.080	14439						
OBS	141	.71	34.240	27.47			14538	613	208	341	46	804	
STD	150	.88	34.270	27.49	60.70	.114	14547						
OBS	188	1.27	34.343	27.52			14572	547	140	407	50	802	
STD	200	1.38	34.363	27.53	57.06	.144	14579						
STD	250	1.75	34.434	27.56	54.61	.172	14604						
OBS	285	1.91	34.471	27.58			14618	456	227	402	56	792	
STD	300	1.94	34.485	27.59	52.56	.198	14622						
OBS	382	1.99	34.546	27.63			14638	422	152	394	65	791	
STD	400	2.00	34.555	27.64	48.43	.249	14641						
STD	500	2.02	34.597	27.67	45.29	.296	14659						
OBS	578	2.02	34.621	27.69			14672	412	194	399	71	790	
STD	600	2.02	34.630	27.69	43.88	.340	14676						
STD	700	2.03	34.668	27.73	41.17	.383	14693						
OBS	777	2.01	34.697	27.75			14705	421	149	389	73	796	
STD	800	1.99	34.707	27.76	38.21	.423	14708						
OBS	876	1.94	34.732	27.78			14719	428	184	396	74	800	
STD	900	1.93	34.730	27.78	36.34	.460	14722						
OBS	991	1.91	34.715	27.77			14736	432	201	363	73	795	
STD	1000	1.91	34.715	27.77	37.76	.497	14738						
OBS	1138	1.84	34.723	27.78			14758	443	177	358	76	802	
STD	1250	1.75	34.723	27.79	36.05	.589	14772						
OBS	1404	1.61	34.722	27.80			14791	465	122	373	85	799	
STD	1500	1.54	34.728	27.81	34.60	.678	14804						
OBS	1669	1.41	34.738	27.83			14827	460	144	362	103	795	
STD	1750	1.35	34.735	27.83	32.50	.761	14837						
OBS	1937	1.21	34.725	27.83			14863	465	158	408	105	792	
STD	2000	1.18	34.723	27.83	32.70	.843	14871						
OBS	2213	1.07	34.716	27.83			14903	482	173	397	121	807	
STD	2250	1.05	34.715	27.83	32.29	.924	14908						
OBS	2469	.94	34.707	27.84			14940	477	146	377	135	805	
STD	2500	.93	34.706	27.83	32.64	1.005	14944						
OBS	2743	.82	34.698	27.84			14981	482	179	394	135	811	
STD	2750	.82	34.698	27.84	31.77	1.086	14982						
STD	3000	.74	34.705	27.85	30.94	1.164	15021						
OBS	3016	.73	34.705	27.85			15024	486	178	376	133	813	
STD	3250	.62	34.698	27.85	29.83	1.240	15059						
OBS	3293	.60	34.696	27.85			15065	490	176	351	128	799	
STD	3500	.53	34.699	27.85	29.15	1.314	15098						
OBS	3733	.48	34.703	27.86			15136	501	154	383	121	805	
STD	3750	.48	34.703	27.86	27.50	1.385	15139						
STD	4000	.44	34.694	27.86	27.72	1.454	15180						
OBS	4180	.43	34.682	27.85			15212	505	214	408	119	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	204	30OCT1963	128	6454S	7851W	4206	523	48	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			340	3	-3.0	0.0	260	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-1.60	33.858	27.27	81.67	0.000	14403						
OBS	2	-1.60	33.858	27.27			14403	793	193	212	43	807	
STD	10	-1.62	33.840	27.25	82.90	.008	14403						
STD	20	-1.65	33.826	27.24	83.85	.017	14403						
OBS	27	-1.66	33.821	27.24			14403	797	206	214	45	807	
STD	30	-1.67	33.822	27.24	84.00	.025	14404						
STD	50	-1.68	33.839	27.25	82.51	.042	14407						
OBS	54	-1.68	33.844	27.26			14407	784	206	188	45	807	
STD	75	-1.64	33.862	27.27	80.88	.062	14413						
OBS	80	-1.61	33.867	27.27			14415	756	207	274	47	803	
STD	100	-1.36	33.897	27.29	78.53	.082	14431						
OBS	105	-1.27	33.909	27.30			14436	722	203	322	45	806	
STD	150	.44	34.186	27.45	64.34	.118	14526						
OBS	164	1.00	34.282	27.49			14555	562	225	250	65	798	
STD	200	1.63	34.400	27.54	56.10	.148	14591						
OBS	210	1.74	34.423	27.55			14597	466	232	240	66	790	
STD	250	1.98	34.491	27.59	52.18	.175	14615						
STD	300	2.00	34.541	27.63	48.77	.200	14625						
OBS	315	2.04	34.549	27.63			14629	418	243		80	793	
STD	400	2.08	34.600	27.67	45.75	.247	14645						
OBS	419	2.07	34.607	27.67			14648	414	204		90	793	
STD	500	2.06	34.635	27.70	42.74	.292	14661						
STD	600	2.02	34.660	27.72	41.53	.334	14676						
OBS	633	2.00	34.666	27.73			14681	416	243	340	90	794	
STD	700	1.97	34.681	27.74	39.73	.374	14691						
STD	800	1.93	34.699	27.76	38.23	.413	14705						
OBS	847	1.90	34.705	27.76			14712	428	214	241	93	794	
STD	900	1.86	34.710	27.77	37.15	.451	14719						
OBS	988	1.79	34.741	27.80			14731	440	220	336	96	790	2
STD	1000	1.79	34.714	27.78	36.63	.488	14732						
OBS	1061	1.76	34.715	27.78			14741	440	234	324	102	792	
STD	1250	1.59	34.711	27.79	35.27	.578	14765						
OBS	1257	1.58	34.711	27.79			14765	454	234	263	106	788	
STD	1500	1.43	34.732	27.82	33.16	.663	14799						
OBS	1529	1.41	34.735	27.83			14803	454	211	338	114	796	
STD	1750	1.26	34.729	27.83	32.08	.745	14834						
OBS	1800	1.23	34.726	27.83			14840	466	237	300	114	795	
STD	2000	1.09	34.719	27.83	32.05	.825	14868						
OBS	2067	1.05	34.671	27.80			14876	470	206	290	124	793	2
STD	2250	.97	34.712	27.84	31.54	.905	14904						
OBS	2342	.93	34.668	27.80			14917	476	247	318	136	793	2
STD	2500	.84	34.706	27.84	31.57	.983	14941						
OBS	2609	.78	34.649	27.80			14955	478	214	239	145	793	2
STD	2750	.72	34.702	27.85	30.25	1.061	14978						
OBS	2881	.67	34.701	27.85			14998	488	248	340	146	795	
STD	3000	.62	34.703	27.85	29.61	1.136	15016						
OBS	3157	.56	34.678	27.84			15040	495	230	312	150	800	2
STD	3250	.52	34.705	27.86	27.98	1.207	15054						
OBS	3430	.46	34.706	27.86			15083	497	255	342	156	795	
STD	3500	.46	34.704	27.86	27.74	1.277	15094						
OBS	3706	.43	34.700	27.86			15129	503	248	305	151	797	
STD	3750	.41	34.700	27.86	26.74	1.345	15135						
STD	4000	.21	34.702	27.88	23.70	1.408	15170						
OBS	4093	.10	34.705	27.88			15182	499	251	347	166	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	205	1 NOV 1963	437	6500S	7504W	3881	523	57	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		230	4	-4.5	0.0	0	0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x 10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-1.78	33.803	27.23	85.47	0.000	14393						
OBS	2	-1.78	33.803	27.23			14393	836	211	185	45	810	
STD	10	-1.78	33.802	27.23	85.48	.009	14395						
STD	20	-1.78	33.794	27.22	85.93	.017	14396						
OBS	27	-1.78	33.786	27.21			14397	837	227	212	45	821	
STD	30	-1.79	33.775	27.20	87.32	.026	14397						
STD	50	-1.80	33.733	27.17	90.31	.044	14399						
OBS	52	-1.80	33.732	27.17			14399	846	169	202	47	818	
STD	75	-1.63	33.874	27.28	80.00	.065	14414						
OBS	78	-1.59	33.896	27.30			14416	787	208	228	46	812	
STD	100	-1.25	33.963	27.34	73.82	.084	14437						
OBS	103	-1.19	33.970	27.35			14440	773	205	219	39	816	
STD	150	.43	34.106	27.38	70.38	.120	14525						
OBS	154	.58	34.119	27.38			14532	642	280	244	52	806	
STD	200	1.45	34.312	27.48	61.43	.153	14581						
OBS	204	1.50	34.328	27.49			14584	537	234	268	70	799	
STD	250	1.82	34.414	27.54	56.72	.183	14607						
STD	300	1.88	34.456	27.57	54.23	.210	14618						
OBS	308	1.91	34.458	27.57			14621	458	269	309	76	798	
STD	400	2.04	34.530	27.61	50.59	.263	14643						
OBS	410	2.04	34.537	27.62			14644	429	232	277	84	800	
STD	500	2.05	34.604	27.67	45.06	.311	14661						
STD	600	2.02	34.664	27.72	41.28	.354	14676						
OBS	602	2.02	34.665	27.72			14676	420	216	90	102	798	
STD	700	2.01	34.692	27.75	39.24	.394	14693						
STD	800	1.99	34.704	27.76	38.39	.433	14708						
OBS	830	1.98	34.705	27.76			14712	424	233	214	100	807	
OBS	884	1.96	34.710	27.76			14720	433	233	102	99	804	
STD	900	1.95	34.712	27.77	37.88	.471	14723						
STD	1000	1.88	34.719	27.78	37.18	.508	14736						
OBS	1040	1.85	34.721	27.78			14741	440	248	261	99	802	
OBS	1173	1.78	34.713	27.78			14760	449		87		804	
STD	1250	1.72	34.719	27.79	36.02	.600	14771						
OBS	1465	1.53	34.741	27.82			14798	463	230	264	111	803	
STD	1500	1.50	34.741	27.82	33.29	.687	14803						
OBS	1749	1.31	34.735	27.83			14835	471	245	144	126	806	
STD	1750	1.31	34.735	27.83	32.13	.768	14836						
STD	2000	1.14	34.723	27.83	32.33	.849	14870						
OBS	2034	1.12	34.721	27.83			14874	481	240		129	802	
STD	2250	.99	34.718	27.84	31.41	.929	14905						
OBS	2327	.95	34.717	27.84			14916	479	247	190	134	812	
STD	2500	.85	34.714	27.85	31.13	1.007	14941						
OBS	2598	.80	34.713	27.85			14955	490	236	249	139	803	
STD	2750	.72	34.713	27.85	29.52	1.083	14978						
OBS	2884	.66	34.713	27.86			14998	498	249	229	140	800	
STD	3000	.61	34.711	27.86	28.76	1.155	15015						
OBS	3166	.54	34.709	27.86			15041	505	237	231	143	798	
STD	3250	.52	34.709	27.86	27.67	1.226	15054						
OBS	3452	.48	34.707	27.86			15087	503	243	130	154	799	
STD	3500	.47	34.706	27.86	27.82	1.295	15095						
STD	3750	.44	34.699	27.86	27.16	1.364	15137						
OBS	3813	.43	34.697	27.86			15148	505	265	154	90	803	7

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	206	3NOV1963	208	6404S	7515W	2131	523	45	17				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			250	3	-1.4	0.0	0	0					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.53	33.779	27.20	87.91	0.000	14405						
OBS	2	-1.53	33.779	27.20			14405	835	195	299	50	804	
STD	10	-1.57	33.802	27.22	85.94	.009	14405						
STD	20	-1.62	33.826	27.24	83.89	.017	14405						
OBS	27	-1.64	33.840	27.25			14405	826	181	298	49	804	
STD	30	-1.65	33.844	27.26	82.33	.025	14405						
STD	50	-1.68	33.867	27.28	80.32	.042	14407						
OBS	51	-1.68	33.868	27.28			14407	824	205	266	50	805	
STD	75	-1.74	33.892	27.30	78.26	.062	14409						
OBS	77	-1.74	33.895	27.30			14409	786	188	323	50	803	
STD	100	-1.55	33.941	27.33	74.60	.081	14422						
OBS	103	-1.50	33.950	27.34			14425	754	205	342	51	800	
STD	150	.46	34.236	27.49	60.67	.115	14528						
OBS	152	.56	34.250	27.49			14532	599	205	380	68	794	
STD	200	1.63	34.428	27.56	53.97	.143	14591						
OBS	204	1.68	34.438	27.57			14594	474	231	387	75	794	
STD	250	1.92	34.499	27.60	51.04	.169	14613						
STD	300	1.86	34.523	27.62	49.04	.194	14618						
OBS	304	1.84	34.523	27.62			14618	433	192	432	85	788	
STD	400	1.97	34.615	27.69	43.73	.241	14641						
OBS	406	1.98	34.620	27.69			14642	420	223	396	89	789	
STD	500	1.99	34.659	27.72	40.40	.283	14659						
STD	600	2.00	34.676	27.73	40.20	.323	14676						
OBS	607	2.00	34.676	27.73			14676	423	190	399	91	793	
STD	700	1.96	34.695	27.75	38.49	.363	14690						
STD	800	1.90	34.707	27.77	37.36	.400	14705						
OBS	808	1.90	34.708	27.77			14705	429	232	384	94	795	
STD	900	1.87	34.704	27.77	37.66	.438	14719						
OBS	917	1.86	34.704	27.77			14721						
STD	1000	1.79	34.722	27.79	36.06	.475	14732						
OBS	1007	1.78	34.724	27.79			14733	441	188	396	103	795	
OBS	1185	1.56	34.720	27.80			14753	471	214	389	113	796	4
STD	1250	1.50	34.723	27.81	33.47	.562	14761						
OBS	1453	1.36	34.732	27.83			14788	459	240	368	109	797	
STD	1500	1.36	34.731	27.83	32.62	.644	14796						
OBS	1719	1.35	34.720	27.82			14832	447	226	336	104	796	
STD	1750	1.33	34.719	27.82	33.55	.727	14836						
STD	2000	1.07	34.714	27.83	32.15	.809	14866						
OBS	2094	.91	34.713	27.84			14875						

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	207	3NOV1963	1932	6259S	7458W	4270	523	24	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		55	2	1.4	0.0	350	2						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-.62	33.924	27.29	79.73	0.000	14449						
OBS	2	-.62	33.924	27.29			14449	836	152	278	31	808	
STD	10	-.70	33.912	27.28	80.26	.008	14447						
STD	20	-.78	33.900	27.27	80.84	.016	14445						
OBS	27	-.84	33.892	27.27			14443	837	158	288	31	814	
STD	30	-.86	33.889	27.27	81.34	.024	14442						
OBS	50	-.99	33.873	27.26			14439	833	147	282	28	813	
STD	50	-.99	33.873	27.26	81.95	.040	14440						
STD	75	-1.01	33.882	27.27	81.26	.061	14443						
OBS	78	-1.00	33.884	27.27			14443	834	186	286	30	814	
STD	100	-.90	33.881	27.26	81.37	.081	14452						
OBS	104	-.87	33.881	27.26			14454	822	180	295	30	798	
STD	150	-.42	33.950	27.30	77.85	.121	14483						
OBS	153	-.37	33.958	27.30			14486	783	180	296	24	814	
STD	200	1.34	34.155	27.37	72.49	.159	14574						
OBS	203	1.45	34.168	27.37			14579	640	143	360	29	807	
STD	250	1.40	34.224	27.42	67.89	.194	14586						
STD	300	1.40	34.230	27.42	67.53	.228	14594						
OBS	304	1.35	34.233	27.43			14592	602	202	370	36	803	
STD	400	1.94	34.358	27.48	62.74	.293	14636						
OBS	407	1.99	34.368	27.49			14639	496	239	338	46	800	
STD	500	2.22	34.458	27.54	57.54	.353	14666						
STD	600	2.26	34.529	27.59	53.61	.408	14685						
OBS	611	2.28	34.535	27.60			14687	418	235	416	73	796	
STD	700	2.26	34.575	27.63	50.25	.460	14702						
STD	800	2.24	34.610	27.66	47.80	.509	14718						
OBS	816	2.23	34.615	27.67			14720	410	209	441	81	797	
STD	900	2.19	34.651	27.70	44.75	.556	14733						
STD	1000	2.14	34.687	27.73	42.17	.599	14747						
OBS	1062	2.11	34.706	27.75			14756	419	186	399	88	795	
STD	1250	2.01	34.708	27.76	39.85	.702	14783						
OBS	1342	1.96	34.702	27.76			14796	439	190	330	96	796	
STD	1500	1.85	34.713	27.77	39.15	.800	14818						
OBS	1621	1.76	34.722	27.79			14834	440	186	391	98	798	
STD	1750	1.65	34.725	27.80	36.65	.895	14851						
OBS	1898	1.53	34.726	27.81			14870	451	214	396	110	801	
STD	2000	1.45	34.725	27.81	35.70	.986	14884						
OBS	2169	1.34	34.694	27.80			14906	456	200	383	114	801	2
STD	2250	1.30	34.723	27.82	34.59	1.073	14919						
OBS	2451	1.19	34.720	27.83			14948	471	212	395	119	799	
STD	2500	1.16	34.719	27.83	34.57	1.160	14955						
OBS	2724	1.02	34.718	27.84			14987	475	219	399	130	805	
STD	2750	1.00	34.720	27.84	32.57	1.244	14990						
STD	3000	.86	34.738	27.87	30.19	1.322	15027						
OBS	3001	.86	34.738	27.87			15027	481	232	381	130	799	
STD	3250	.77	34.729	27.86	29.60	1.397	15065						
OBS	3281	.76	0.000	0.00			0	489	215	365	125	799	
STD	3500	.65	34.713	27.86	29.74	1.471	15103						
OBS	3554	.62	34.709	27.86			15131	504	231		135	805	
STD	3750	.57	34.699	27.85	29.15	1.545	15142						
OBS	3829	.56	0.000	0.00			0	496	207	382	153	796	
STD	4000	.54	34.686	27.84	29.81	1.619	15184						
OBS	4195	.54	34.702	27.86			15256	496	236	391	156	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	208	5 NOV 1963	308	6156S	7500W	4579	523	15	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		045	05	1.6	0.0	050	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.15	34.070	27.31	77.58	0.000	14532						
OBS	2	1.15	34.070	27.31			14533	787	152	259	33	806	
STD	10	1.15	34.068	27.31	77.69	.008	14534						
STD	20	1.15	34.065	27.31	77.92	.016	14535						
OBS	28	1.15	34.062	27.30			14537	782	155	258	26	822	
STD	30	1.13	34.061	27.30	78.15	.023	14536						
STD	50	.92	34.048	27.31	77.79	.039	14530						
OBS	54	.88	34.046	27.31			14528	788	107	237	24	824	
STD	75	.82	34.048	27.31	77.37	.058	14529						
ORS	80	.82	34.050	27.32			14530	778	102	228	26	818	
STD	100	.80	34.053	27.32	76.58	.078	14532						
OBS	106	.79	34.054	27.32			14533	781	140	150	26	817	
STD	150	.76	34.059	27.33	75.94	.116	14539						
OBS	161	.76	34.059	27.33			14541	771	187	286	25	819	
STD	200	.75	34.052	27.32	76.35	.154	14546						
OBS	214	.76	34.051	27.32			14549	768	125		46	820	
STD	250	.92	34.063	27.32	76.65	.192	14562						
STD	300	1.20	34.097	27.33	76.19	.230	14583						
OBS	319	1.32	34.114	27.33			14592	678	187		56	815	
STD	400	1.67	34.206	27.38	72.00	.304	14622						
OBS	427	1.77	34.239	27.40			14631	593	186	201	68	812	
STD	500	2.05	34.318	27.44	66.49	.374	14657						
STD	600	2.34	34.410	27.49	63.15	.438	14687						
OBS	642	2.42	34.443	27.51			14698	437	190	247	85	804	
STD	700	2.39	34.457	27.53	60.38	.500	14706						
STD	800	2.37	34.497	27.56	57.51	.559	14722						
OBS	855	2.31	34.529	27.59			14729	408	195	352	92	806	
STD	900	2.29	34.590	27.64	50.32	.613	14736						
OBS	911	2.29	34.604	27.65			14738	405	197	361	100	800	
STD	1000	2.27	34.625	27.67	48.10	.662	14752						
OBS	1075	2.25	34.615	27.66			14763	408	192	307	94	804	
OBS	1189	2.18	34.663	27.71			14780	414	187	340	107	805	
STD	1250	2.15	34.678	27.72	43.55	.777	14789						
OBS	1474	2.04	34.706	27.75			14822	424	187		111	818	
STD	1500	2.03	34.708	27.76	41.38	.883	14825						
STD	1750	1.86	34.725	27.78	39.10	.984	14860						
OBS	1757	1.86	34.725	27.78			14861	447	172	234	123	817	
STD	2000	1.67	34.732	27.80	37.81	1.080	14893						
OBS	2040	1.64	34.732	27.81			14899	443	191	324	125	805	
STD	2250	1.51	34.734	27.82	36.35	1.172	14928						
OBS	2326	1.46	34.733	27.82			14939	456	188	272	123	806	
STD	2500	1.35	34.722	27.82	36.68	1.264	14963						
OBS	2594	1.29	34.716	27.82			14977	464	205	390	135	803	
STD	2750	1.19	34.710	27.82	35.67	1.354	14998						
OBS	2880	1.11	34.707	27.82			15017	469	212	303	120	806	
STD	3000	1.05	34.706	27.83	35.04	1.443	15035						
OBS	3215	.95	34.705	27.83			15067	477	225		143	818	
STD	3250	.93	34.705	27.83	33.54	1.528	15072						
STD	3500	.78	34.702	27.84	32.41	1.611	15108						
OBS	3559	.74	34.701	27.84			15117	483	236	288	148	812	
STD	3750	.64	34.701	27.85	29.99	1.689	15145						
OBS	3893	.58	34.701	27.85			15168	500	235	294	154	804	
STD	4000	.53	34.701	27.86	28.52	1.762	15184						
OBS	4409	.54	34.698	27.85			15257	493	219	307	157	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	209	6NOV1963	415	6059S	7512W	4609	523	5	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	6	2.0	0.0	230	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.74	34.142	27.33	76.04	0.000	14559						
OBS	2	1.74	34.142	27.33			14559	777	164	195	31	820	
STD	10	1.74	34.162	27.34	74.48	.008	14561						
STD	20	1.73	34.163	27.34	74.37	.015	14562						
OBS	27	1.72	34.171	27.35			14563	768	151	272	27	817	
STD	30	1.72	34.163	27.35	74.30	.022	14563						
STD	50	1.68	34.104	27.30	78.53	.038	14565						
OBS	53	1.68	34.095	27.29			14564	767	147	214	26	819	
STD	75	1.65	34.097	27.30	79.12	.057	14567						
OBS	77	1.65	34.099	27.30			14567	761	168	278	29	820	
STD	100	1.60	34.106	27.31	77.90	.077	14569						
OBS	105	1.59	34.107	27.31			14569	755	155	215	33	821	
STD	150	1.55	34.107	27.31	77.48	.116	14575						
OBS	156	1.54	34.107	27.31			14575	754	176	282	31	817	
STD	200	1.43	34.120	27.33	75.83	.154	14578						
OBS	207	1.42	34.123	27.33			14578	693	159	295	38	816	
STD	250	1.52	34.154	27.35	74.03	.192	14590						
STD	300	1.69	34.194	27.37	72.54	.228	14607						
OBS	313	1.75	34.205	27.38			14611	619	186	343	40	818	
STD	400	1.86	34.252	27.41	70.10	.300	14631						
OBS	421	1.88	34.262	27.41			14635	576	168	329	51	801	
STD	500	2.05	34.312	27.44	66.97	.368	14656						
STD	600	2.25	34.378	27.48	64.70	.434	14682						
OBS	641	2.32	34.407	27.49			14692	459	188	342	75	809	
STD	700	2.32	34.454	27.53	59.93	.496	14703						
STD	800	2.33	34.523	27.59	55.14	.554	14720						
OBS	870	2.33	34.564	27.62			14732	408	204	367	81	809	
STD	900	2.32	34.571	27.62	52.04	.607	14737						
OBS	1000	2.30	34.590	27.64			14753	406	190	378	91	801	
STD	1000	2.30	34.590	27.64	51.00	.659	14753						
OBS	1100	2.28	34.629	27.67			14769	404	185	324	95	803	
STD	1250	2.21	34.650	27.70	46.30	.781	14791						
OBS	1254	2.21	34.650	27.70			14791	412	189	376	101	810	
STD	1500	2.10	34.686	27.73	43.86	.893	14828						
OBS	1517	2.09	34.688	27.74			14830	421	176	367	97	806	
STD	1750	1.94	34.699	27.76	41.85	1.000	14863						
OBS	1776	1.92	34.700	27.76			14866	438	208	376	105	806	
STD	2000	1.73	34.725	27.79	39.04	1.102	14896						
OBS	2037	1.70	34.728	27.80			14900	441	192	347	108	807	
STD	2250	1.55	34.726	27.81	37.48	1.197	14930						
OBS	2300	1.52	34.724	27.81			14937	447	183	360	123	809	
STD	2500	1.42	34.721	27.81	37.64	1.291	14966						
OBS	2548	1.39	34.720	27.81			14973		199	353	117	806	
STD	2750	1.25	34.719	27.82	35.74	1.383	15001						
OBS	2816	1.20	34.719	27.83			15010	462	190	380	129	806	
STD	3000	1.12	34.713	27.83	35.48	1.472	15038						
OBS	3082	1.09	34.745	27.86			15051	471	174	341	122	803	2
STD	3250	.99	34.705	27.83	34.44	1.559	15075						
OBS	3355	.93	34.701	27.83			15090	473	180	367	128	804	
STD	3500	.84	34.701	27.84	33.35	1.644	15111						
STD	3750	.71	34.703	27.85	30.86	1.724	15148						
OBS	3955	.62	34.705	27.85			15181	486	183	345	138	805	
STD	4000	.60	34.705	27.86	29.26	1.799	15187						
STD	4500	.57	34.701	27.85	29.69	1.947	15273						
OBS	4508	.57	34.701	27.85			15275	491	190	378	149	803	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 10	210	7NOV1963	1825	6002S	7513W	4570	523	5	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			305	6	4.5	U.U	300	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	1.79	34.153	27.33	75.55	0.000	14562						
OBS	2	1.79	34.153	27.33			14562	780	097	361	32	805	
STD	10	1.78	34.128	27.31	77.43	.008	14563						
STD	20	1.77	34.107	27.30	78.88	.015	14563						
OBS	21	0.00	34.106	0.00			0	772	042	328	29	811	
STD	30	1.75	34.108	27.30	78.75	.023	14564						
OBS	43	1.73	34.110	27.30			14561	775	085	367	26	807	
STD	50	1.72	34.106	27.30	78.61	.039	14566						
OBS	66	1.68	34.102	27.30			14565	100	155	205	21	812	
STD	75	1.64	34.111	27.31	78.02	.059	14567						
OBS	87	1.59	34.124	27.32			14562	158	108	361	21	796	
STD	100	1.57	34.124	27.32	76.28	.078	14568						
OBS	137	1.55	34.113	27.32			14568	755	049	271	22	807	
STD	150	1.52	34.116	27.32	76.67	.116	14574						
OBS	178	1.44	34.121	27.33			14570	759	123	335	28	810	
STD	200	1.32	34.114	27.33	75.53	.154	14573						
STD	250	1.07	34.091	27.33	75.57	.192	14569						
OBS	271	.97	34.080	27.33			14564	762	135	348	34	820	
STD	300	.92	34.072	27.33	76.11	.230	14570						
OBS	366	.92	34.071	27.33			14577	737	096	444	28	812	
STD	400	1.02	34.093	27.34	75.57	.306	14591						
STD	500	1.41	34.184	27.38	71.28	.379	14626						
OBS	559	1.71	34.254	27.42			14646	585	161	408	50	802	
STD	600	1.89	34.296	27.44	67.65	.449	14665						
STD	700	2.24	34.392	27.49	63.78	.514	14699						
OBS	761	2.40	34.446	27.52			14712	448	125	442	71	794	
STD	800	2.42	34.472	27.54	59.86	.576	14724						
OBS	897	2.39	34.528	27.58			14735	419	141	392	70	801	
STD	900	2.39	34.530	27.59	55.75	.634	14740						
OBS	967	2.35	34.564	27.62			14745	416	204	484	76	808	
STD	1000	2.35	34.578	27.63	52.36	.688	14755						
OBS	1182	2.35	34.642	27.68			14781	408	152	330	89	795	
STD	1250	2.30	34.660	27.70	46.52	.812	14795						
OBS	1472	2.12	34.704	27.75			14820	418	111	463	91	799	
STD	1500	2.10	34.708	27.75	42.32	.923	14828						
STD	1750	1.96	34.731	27.78	39.81	1.025	14864						
OBS	1757	1.96	34.731	27.78			14861	434	203	360	85	795	
STD	2000	1.75	34.739	27.80	38.24	1.123	14897						
OBS	2040	1.72	34.739	27.81			14898	444	134	408	110	792	
STD	2250	1.57	34.721	27.80	38.10	1.218	14931						
OBS	2332	1.52	34.715	27.80			14938	452	159	349	114	793	
STD	2500	1.40	34.722	27.82	37.37	1.313	14965						
OBS	2602	1.33	34.727	27.82			14975	459	155	412	126	786	
STD	2750	1.25	34.724	27.83	35.40	1.404	15001						
OBS	2889	1.17	34.719	27.83			15017	469	140	378	119	794	
STD	3000	1.10	34.716	27.83	35.02	1.492	15037						
OBS	3171	1.00	0.000	0.00			0						
STD	3250	.95	34.710	27.84	33.46	1.577	15073						
OBS	3459	.83	34.707	27.84			15066	481	161	345	126	809	
STD	3500	.81	34.707	27.84	32.46	1.660	15110						
STD	3750	.69	34.709	27.85	30.13	1.738	15148						
STD	4000	.60	34.711	27.86	28.87	1.812	15187						
OBS	4027	.59	34.711	27.86			15154	498	177	379	108	802	7
STD	4500	.54	34.707	27.86	28.80	1.956	15272						
OBS	4546	.54	34.706	27.86			15242	498	195	320	106	792	7

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	211	9NOV1963	917	5855S	7455W	4757	487	84	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			220	5	1.9	0.0	220	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	4.87	34.261	27.13	95.00	0.000	14695						
OBS	2	4.87	34.261	27.13			14695	713	097	150	20	812	
STD	10	4.86	34.251	27.12	95.76	.010	14696						
STD	20	4.86	34.240	27.11	96.58	.019	14697						
OBS	29	4.85	34.232	27.11			14698	708	119	281	17	809	
STD	30	4.85	34.231	27.11	97.27	.029	14699						
STD	50	4.84	34.218	27.10	98.28	.048	14701						
OBS	58	4.84	34.217	27.09			14702	702	093	162	14	809	
STD	75	4.87	34.228	27.10	98.29	.073	14706						
OBS	84	4.88	34.235	27.10			14708	717	123	275	13	810	
STD	100	4.88	34.232	27.10	98.20	.098	14711						
OBS	113	4.87	34.227	27.10			14712	712	144	240	13	810	
STD	150	4.74	34.233	27.12	96.99	.146	14713						
OBS	168	4.66	34.239	27.13			14713	694	126	294	12	809	
STD	200	4.57	34.245	27.15	94.82	.194	14715						
OBS	222	4.52	34.247	27.15			14716	700	131	254	16	806	
STD	250	4.45	34.243	27.16	94.16	.242	14718						
STD	300	4.33	34.232	27.16	94.23	.289	14721						
OBS	332	4.26	34.223	27.16			14722	696	126	285	17	804	
STD	400	4.14	34.219	27.17	94.29	.383	14729						
OBS	445	4.07	34.219	27.18			14733	684	099	274	17	804	
STD	500	4.02	34.221	27.19	93.10	.477	14740						
STD	600	3.89	34.228	27.21	92.48	.569	14751						
OBS	664	3.77	34.235	27.22			14756	577	169	375	29	796	
STD	700	3.62	34.236	27.24	89.38	.660	14755						
STD	800	3.18	34.245	27.29	84.61	.747	14753						
OBS	856	2.94	34.253	27.32			14752	584	153	367	34	795	
STD	900	2.85	34.267	27.34	80.03	.830	14756						
STD	1000	2.70	34.305	27.38	76.27	.908	14766						
OBS	1112	2.63	34.361	27.43			14782	488	186	290	52	792	
STD	1250	2.55	34.446	27.50	65.09	1.084	14803						
OBS	1426	2.49	34.549	27.59			14830	406	162	364	72	796	
STD	1500	2.46	34.576	27.62	56.03	1.236	14842						
OBS	1718	0.00	34.637	0.00			0	403	227	444	90	796	
STD	1750	2.32	34.648	27.69	50.02	1.368	14878						
OBS	1977	2.16	34.710	27.75			14951	405	225	376	91	799	
STD	2000	2.14	34.712	27.75	44.91	1.487	14913						
STD	2250	1.91	34.715	27.77	42.77	1.597	14945						
OBS	2283	1.88	34.713	27.77			14990	401	192	441	110	800	
STD	2500	1.74	34.718	27.79	42.05	1.703	14980						
OBS	2564	1.71	34.720	27.79			15030	422	128	367	110	801	
STD	2750	1.62	34.728	27.80	40.01	1.805	15017						
OBS	2857	1.56	34.732	27.81			15074	446	176	386	115	800	
STD	3000	1.47	34.732	27.82	38.81	1.904	15053						
STD	3250	1.29	34.728	27.83	36.93	1.999	15088						
OBS	3426	1.16	34.723	27.83			15154	465	140	374	124	800	
STD	3500	1.10	34.722	27.84	35.65	2.089	15123						
STD	3750	.93	34.720	27.85	32.93	2.175	15158						
OBS	3985	.79	34.718	27.85			15235	481	207	365	134	799	
STD	4000	.78	34.718	27.85	31.18	2.255	15195						
STD	4500	.65	34.714	27.86	30.00	2.408	15276						
OBS	4561	.64	34.714	27.86			15330	494	150	399	140	797	
OBS	4808	.63	34.686	27.84			15372	494	238	410	136	798	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	212	10NOV1963	1800	5756S	7455W	4682	487	74	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	6	3.0	0.0	230	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.04	34.230	27.08	99.17	0.000	14702						
OBS	2	5.04	34.230	27.08			14702	719	134	272	26	786	
STD	10	5.04	34.200	27.06	101.52	.010	14703						
STD	20	5.04	34.176	27.04	103.38	.020	14704						
OBS	24	5.04	34.171	27.04			14704	720	129	228	21	800	
STD	30	5.03	34.172	27.04	103.69	.031	14705						
OBS	46	5.02	34.187	27.05			14707	711	118	224	22	803	
STD	50	5.03	34.188	27.05	102.61	.051	14708						
OBS	68	5.03	34.191	27.05			14711	712	144	228	20	807	
STD	75	5.00	34.195	27.06	102.19	.077	14711						
OBS	91	4.90	34.206	27.08			14710	722	131	222	18	809	
STD	100	4.87	34.208	27.09	99.76	.102	14710						
OBS	136	4.76	34.210	27.10			14711	703	141	234	26	801	
STD	150	4.71	34.209	27.10	98.53	.152	14712						
OBS	181	4.62	34.206	27.11			14713	694	110	276	26	799	
STD	200	4.59	34.207	27.11	97.86	.201	14715						
STD	250	4.54	34.210	27.12	97.58	.250	14721						
OBS	270	4.53	34.212	27.13			14723	694	161	290	23	801	
STD	300	4.51	34.214	27.13	97.52	.298	14728						
OBS	358	4.46	34.216	27.14			14735	688	120	287	21	803	
STD	400	4.39	34.216	27.14	97.26	.396	14739						
STD	500	4.22	34.216	27.16	95.65	.492	14748						
OBS	540	4.14	34.215	27.17			14751	674	153	296	26	800	
STD	600	4.06	34.212	27.18	95.64	.588	14758						
STD	700	3.92	34.210	27.19	94.64	.683	14768						
OBS	730	3.87	34.211	27.19			14770	671	160	312	28	804	
STD	800	3.70	34.221	27.22	92.09	.776	14775						
STD	900	3.45	34.242	27.26	88.41	.867	14781						
OBS	939	3.35	34.253	27.28			14783	559	195	364	44	799	
STD	1000	3.22	34.271	27.30	84.55	.953	14788						
OBS	1209	0.00	34.351	0.00			0	471	247	440	60	794	
STD	1250	2.80	34.373	27.42	73.23	1.150	14813						
OBS	1481	2.55	34.499	27.55			14761	416	200	409	78	790	
STD	1500	2.54	34.508	27.56	61.97	1.319	14844						
STD	1750	2.39	34.600	27.64	54.44	1.465	14881						
OBS	1751	2.39	34.600	27.64			14800	405	227	366	90	785	
STD	2000	2.22	34.656	27.70	50.00	1.595	14916						
OBS	2018	2.21	34.659	27.70			14837	399	226	374	99	784	
STD	2250	2.00	34.673	27.73	46.89	1.717	14948						
OBS	2294	1.96	34.674	27.74			14873	377	246	403	122	792	
STD	2500	1.86	34.681	27.75	46.22	1.833	14984						
OBS	2549	1.84	34.683	27.75			14910	385	207	443	131	788	
STD	2750	1.81	34.708	27.77	44.09	1.946	15025						
OBS	2820	1.80	34.717	27.78			14955	421	226	398	121	788	
STD	3000	1.70	34.724	27.80	42.57	2.054	15063						
OBS	3139	1.60	34.725	27.80			15000	453	143	416	123	791	
STD	3250	1.53	34.724	27.81	40.56	2.158	15098						
OBS	3466	1.38	34.721	27.82			15046	462	253	406	122	788	
STD	3500	1.36	34.720	27.82	39.45	2.258	15134						
STD	3750	1.18	34.717	27.83	36.81	2.353	15169						
STD	4000	1.00	34.714	27.84	34.80	2.443	15205						
OBS	4106	.93	34.713	27.84			15137	479	235	431	139	787	
STD	4500	.70	34.713	27.86	30.90	2.607	15278						
OBS	4528	.68	34.713	27.86			15199	492	255	420	138	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	213	11NOV1963	1830	5659S	7503W	3515	487	65	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	4	3.5	0.0	230	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.91	34.212	27.08	99.11	0.000	14696						
OBS	2	4.91	34.212	27.08			14696	718	068	256	26	796	
STD	10	4.91	34.207	27.08	99.59	.010	14697						
STD	20	4.90	34.202	27.08	99.93	.020	14699						
OBS	27	4.89	34.200	27.08			14699	719	079	287	19	806	
STD	30	4.88	34.200	27.08	99.93	.030	14699						
STD	50	4.82	34.201	27.08	99.35	.050	14700						
OBS	53	4.81	34.202	27.09			14700	716	079	245	19	808	
STD	75	4.78	34.209	27.10	98.79	.075	14703						
OBS	79	4.77	34.210	27.10			14703	716	090	252	20	809	
STD	100	4.68	34.209	27.11	97.73	.099	14702						
OBS	104	4.66	34.208	27.11			14702	705	116	206	21	809	
STD	150	4.47	34.202	27.12	96.45	.148	14702						
OBS	162	4.43	34.202	27.13			14702	696	127	280	22	808	
STD	200	4.32	34.213	27.15	94.46	.195	14704						
OBS	208	4.30	34.216	27.15			14704	694	090	259	24	807	
STD	250	4.21	34.215	27.16	93.64	.242	14707						
STD	300	4.12	34.210	27.17	93.67	.289	14712						
OBS	310	4.11	34.208	27.17			14712	690	146	263	27	808	
STD	400	4.01	34.212	27.18	93.35	.383	14723						
OBS	413	3.99	34.213	27.18			14724	694	070	303	22	807	
STD	500	3.80	34.213	27.20	91.34	.475	14730						
STD	600	3.55	34.212	27.23	90.03	.566	14736						
OBS	622	3.49	34.212	27.23			14737	630	152	353	33	805	
STD	700	3.30	34.216	27.25	87.49	.655	14742						
STD	800	3.08	34.218	27.28	85.44	.741	14748						
OBS	831	3.01	34.223	27.29			14751	568	114	327	43	797	
STD	900	2.89	34.250	27.32	81.66	.825	14757						
STD	1000	2.73	34.298	27.37	77.18	.904	14768						
OBS	1050	2.67	34.326	27.40			14773	508	114	392	57	799	
STD	1250	2.55	34.427	27.49	66.40	1.084	14802						
OBS	1318	2.68	34.460	27.50			14820	410	175	369	69	792	1
STD	1500	2.46	34.538	27.59	58.86	1.240	14841						
OBS	1586	2.45	34.570	27.61			14856	403	122	375	82	789	
STD	1750	2.35	34.621	27.66	52.42	1.379	14879						
OBS	1848	2.29	34.644	27.68			14893	404	120	383	95	792	
STD	2000	2.21	34.663	27.71	49.29	1.506	14915						
OBS	2122	2.14	34.675	27.72			14933	413	150	378	99	789	
STD	2250	2.05	34.695	27.74	46.04	1.625	14951						
OBS	2387	1.96	34.715	27.77			14970	423	114	396	103	792	
STD	2500	1.89	34.726	27.78	43.45	1.737	14987						
OBS	2659	1.80	34.735	27.80			15010	433	126	429	104	793	
STD	2750	1.73	34.735	27.80	41.06	1.843	15022						
OBS	2935	1.59	34.731	27.81			15047	444	161	368	104	792	
STD	3000	1.55	34.729	27.81	40.10	1.944	15056						
OBS	3206	1.42	34.725	27.82			15086	453	090	340	109	794	
STD	3250	1.40	34.725	27.82	38.67	2.043	15093						
OBS	3482	1.26	34.725	27.83			15127	464	125	357	108	796	
STD	3500	1.24	34.724	27.83	37.53	2.138	15129						
OBS	3674	1.04	34.713	27.83			15150	472	155	369	133	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	214	13NOV1963	950	5624S	7503W	4471	487	65	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			290	4	4.9	0.0	280	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.41	34.208	27.02	104.95	0.000	14716						
OBS	2	5.41	34.208	27.02			14716	718	109	219	21	802	
STD	10	5.40	34.172	26.99	107.66	.011	14717						
STD	20	5.39	34.138	26.97	110.13	.022	14718						
OBS	26	5.38	34.124	26.96			14718	718	107	256	17	812	
STD	30	5.37	34.118	26.96	111.47	.033	14718						
OBS	49	5.31	34.109	26.96			14719	712	110	204	17	813	
STD	50	5.31	34.109	26.96	111.70	.055	14719						
OBS	73	5.30	34.121	26.97			14722	715	141	261	17	812	
STD	75	5.27	34.121	26.97	110.85	.083	14722						
OBS	97	4.94	34.126	27.01			14711	704	104	245	19	816	
STD	100	4.90	34.128	27.02	106.23	.110	14711						
OBS	146	4.61	34.163	27.08			14706	674	114	288	18	812	
STD	150	4.62	34.167	27.08	100.72	.162	14708						
OBS	194	4.83	34.203	27.09			14723	655	091	257	19	807	
STD	200	4.82	34.205	27.09	100.55	.212	14724						
STD	250	4.69	34.213	27.11	98.94	.262	14727						
OBS	286	4.50	34.211	27.13			14725	640	156	308	21	807	
STD	300	4.46	34.212	27.13	97.07	.311	14725						
OBS	379	4.20	34.215	27.16			14727	621	091	280	26	803	
STD	400	4.11	34.213	27.17	94.44	.407	14727						
STD	500	3.71	34.206	27.21	90.92	.499	14727						
OBS	570	3.44	34.203	27.23			14726	630	219	402	32	803	
STD	600	3.35	34.205	27.24	88.47	.589	14727						
STD	700	3.08	34.221	27.28	84.79	.676	14732						
OBS	772	2.92	34.244	27.31			14737	569	124	321	26	802	
STD	800	2.88	34.260	27.33	80.25	.758	14741						
STD	900	2.74	34.323	27.39	74.73	.836	14752						
OBS	992	2.92	34.388	27.43			14775	443	203	426	54	791	1
STD	1000	2.63	34.393	27.46	69.09	.907	14765						
STD	1250	2.61	34.526	27.56	59.81	1.069	14807						
OBS	1444	2.49	34.601	27.63			14834	371	183	438	75	786	
STD	1500	2.49	34.616	27.65	53.46	1.210	14844						
OBS	1723	2.46	34.652	27.68			14880	385	167	393	77	802	
STD	1750	2.43	34.652	27.68	51.18	1.341	14883						
OBS	1995	2.17	34.644	27.69			14913	387	105	432	90	791	
STD	2000	2.17	34.644	27.70	50.16	1.468	14913						
STD	2250	2.00	34.674	27.73	46.86	1.589	14948						
OBS	2264	1.99	34.676	27.73			14950	387	172	422	115	793	7
STD	2500	1.86	34.712	27.77	44.10	1.703	14985						
OBS	2531	1.85	34.716	27.78			14990	401	137	444	101	787	
STD	2750	1.75	34.738	27.80	41.10	1.809	15023						
OBS	2795	1.73	0.000	0.00			0	424	152	409	104	784	
STD	3000	1.64	34.740	27.81	40.63	1.911	15060						
OBS	3068	1.60	34.743	27.82			15048	437	116	398	108	787	
STD	3250	1.46	34.723	27.81	39.61	2.012	15095						
OBS	3333	1.38	34.715	27.81			15084	451	160	429	103	791	
STD	3500	1.22	34.719	27.83	37.60	2.108	15128						
OBS	3602	1.13	34.723	27.84			15119	468	135	414	114	794	
STD	3750	1.01	34.716	27.84	34.44	2.198	15162						
OBS	3872	.93	34.708	27.84			15157	473	178	414	118	792	
STD	4000	.86	34.703	27.84	33.37	2.283	15198						
OBS	4138	.80	34.700	27.84			15197	485	144	453	108	792	
OBS	4308	.77	34.704	27.84			15226	484	184	363	117	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	215	16NOV1963	23	6401S	7905W	4237	523	49	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		70	4	.3	0.0	55	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.80	33.889	27.27	81.74	0.000	14441						
OBS	2	-.80	33.889	27.27			14441	842	181	336	35		
STD	10	-.81	33.874	27.25	82.78	.008	14442						
STD	20	-.82	33.860	27.24	83.77	.017	14443						
OBS	29	-.83	33.851	27.24			14443	836	194	221	35	812	
STD	30	-.83	33.851	27.24	84.36	.025	14443						
STD	50	-.86	33.847	27.23	84.44	.042	14445						
OBS	54	-.87	33.847	27.24			14445	840	184	332	33	814	
STD	75	-1.07	33.843	27.24	84.09	.063	14440						
OBS	81	-1.13	33.842	27.24			14437	829	200	183	35	822	
STD	100	-1.27	33.843	27.25	82.93	.084	14434						
OBS	108	-1.29	33.848	27.25			14434	829	192	299	36	821	
STD	150	-.40	33.965	27.31	76.83	.124	14485						
OBS	172	.25	34.043	27.34			14519	744	197	377	33	817	
STD	200	.74	34.111	27.37	71.85	.161	14547						
OBS	216	.97	34.145	27.38			14560	672	198	361	65	818	
STD	250	1.29	34.201	27.41	68.77	.196	14581						
STD	300	1.59	34.267	27.44	66.19	.230	14603						
OBS	323	1.66	34.291	27.45			14610	555	212	416	75	813	
STD	400	1.98	34.373	27.49	61.93	.294	14638						
OBS	432	2.07	34.403	27.51			14647	476	209	415	76	800	
STD	500	2.16	34.462	27.55	56.63	.353	14663						
STD	600	2.14	34.534	27.61	52.06	.407	14680						
OBS	650	2.16	34.564	27.63			14689	415	234	446	89	798	
STD	700	2.15	34.586	27.65	48.50	.458	14697						
STD	800	2.15	34.624	27.68	45.94	.505	14714						
OBS	868	2.13	34.646	27.70			14724	418	216	422	100	796	
STD	900	2.11	34.663	27.71	43.08	.549	14729						
OBS	991	2.06	34.699	27.75			14742	422	188	423	97	796	
STD	1000	2.06	34.699	27.75	40.46	.591	14744						
OBS	1093	2.02	34.687	27.74			14757	427	230	421	99	797	
STD	1250	1.93	34.699	27.76	39.66	.691	14779						
OBS	1279	1.91	34.703	27.76			14783	437	222	421	104	795	
STD	1500	1.75	34.713	27.78	38.06	.789	14813						
OBS	1574	1.69	34.714	27.79			14823	450	217	272	117	803	
STD	1750	1.53	34.713	27.80	36.14	.881	14845						
OBS	1862	1.43	34.712	27.81			14859	461	210	332	125		
STD	2000	1.36	34.717	27.81	35.20	.970	14879						
OBS	2148	1.29	34.721	27.82			14901	463	175	385	126	796	
STD	2250	1.23	34.718	27.82	34.23	1.057	14916						
OBS	2443	1.12	34.709	27.82			14943	471	227	355	127	793	
STD	2500	1.08	34.707	27.83	34.48	1.143	14951						
OBS	2714	.94	34.700	27.83			14981	476	198	389	135	793	
STD	2750	.92	34.700	27.83	32.94	1.227	14986						
STD	3000	.81	34.703	27.84	32.04	1.309	15024						
OBS	3002	.81	34.703	27.84			15025	484	234	322	144	796	
STD	3250	.68	34.694	27.84	30.87	1.387	15061						
OBS	3285	.66	34.693	27.84			15066	490	209	384	147	802	
STD	3500	.56	34.700	27.85	29.43	1.463	15099						
OBS	3573	.53	34.703	27.86			15110	502	219	388	154	802	
STD	3750	.49	34.698	27.86	28.07	1.535	15139						
OBS	3858	.48	34.694	27.85			15157	501	168	355	156	796	
STD	4000	.47	34.694	27.85	28.13	1.605	15181						
OBS	4209	.47	34.699	27.86			15218	493	222	354	138	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	216	17NOV1963	828	6259S	7857W	4969	523	28	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			200	5	- .9	0.0	190	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.04	33.961	27.29	79.38	0.000	14477						
OBS	2	-.04	33.961	27.29			14477	828	063	203	40	804	
STD	10	-.03	33.943	27.28	80.72	.008	14478						
STD	20	-.03	33.926	27.26	81.96	.016	14480						
OBS	27	-.03	33.918	27.26			14481	827	115	314	38	806	
STD	30	-.03	33.915	27.25	82.75	.024	14481						
STD	50	-.06	33.910	27.25	82.97	.041	14483						
OBS	53	-.06	33.911	27.25			14483	826	096	271	40	804	
STD	75	0.00	33.932	27.27	81.73	.062	14490						
OBS	77	0.00	33.934	27.27			14490	821	198	315	33	806	9
STD	100	-.11	33.944	27.28	79.91	.082	14489						
OBS	104	-.13	33.946	27.28			14489	814	094	293	35	805	
STD	150	.07	33.982	27.30	77.86	.121	14507						
OBS	153	.10	33.985	27.30			14508	797	107	349	37	805	
STD	200	.47	34.049	27.34	74.88	.159	14534						
OBS	201	.48	34.051	27.34			14534	757	078	350	38	804	
STD	250	.97	34.122	27.36	72.61	.196	14565						
OBS	296	1.40	34.184	27.38			14592	642		322	51	798	
STD	300	1.42	34.188	27.39	70.91	.232	14595						
OBS	392	1.80	34.278	27.43			14627	568	154	304	60	793	
STD	400	1.83	34.286	27.44	67.25	.301	14630						
STD	500	2.14	34.382	27.49	62.51	.366	14662						
OBS	592	2.33	34.459	27.53			14685	439	198	439	82	793	
STD	600	2.33	34.464	27.54	59.06	.427	14687						
STD	700	2.31	34.518	27.58	55.01	.484	14703						
STD	800	2.31	34.559	27.62	52.27	.538	14720						
OBS	816	2.29	34.564	27.62			14722	412	244	389	88	787	
STD	900	2.24	34.592	27.65	49.67	.589	14734						
STD	1000	2.18	34.621	27.68	47.46	.637	14748						
OBS	1047	2.15	34.634	27.69			14754	418	111	403	94	784	
STD	1250	2.07	34.699	27.75	41.17	.748	14786						
OBS	1344	2.03	34.723	27.77			14799	426	221	399	94	791	
STD	1500	1.93	34.742	27.79	37.86	.847	14821						
OBS	1611	1.85	34.746	27.80			14836	444	104	402	101	790	
STD	1750	1.74	34.740	27.81	36.60	.940	14855						
OBS	1873	1.65	34.731	27.80			14871	456	101	401	104	793	
STD	2000	1.56	34.724	27.81	37.03	1.032	14888						
OBS	2136	1.46	34.719	27.81			14906	459	106	390	125	791	
STD	2250	1.39	34.724	27.82	35.69	1.123	14923						
OBS	2394	1.31	34.730	27.83			14944	469	133	397	114	790	
STD	2500	1.25	34.726	27.83	35.20	1.211	14959						
OBS	2668	1.16	34.718	27.83			14983	472	183	374	124	791	
STD	2750	1.10	34.717	27.83	34.07	1.298	14995						
OBS	2935	.98	34.715	27.84			15021	476	181	390	128	801	
STD	3000	.95	34.713	27.84	33.15	1.382	15030						
OBS	3206	.86	34.706	27.84			15062	489	124	399	136	797	
STD	3250	.84	34.704	27.84	32.29	1.464	15068						
OBS	3482	.71	34.698	27.84			15102	494	204	390	143	794	
STD	3500	.70	34.698	27.84	31.60	1.544	15105						
STD	3750	.58	34.698	27.85	29.35	1.620	15143						
OBS	3753	.58	34.698	27.85			15144	493	260	382	140	792	
STD	4000	.53	34.696	27.85	28.35	1.692	15184						
OBS	4296	.51	34.694	27.85			15235	504	153	394	137	791	
STD	4500	.51	34.695	27.85	29.16	1.837	15270						
OBS	4852	.53	34.698	27.85			15334	502	243	381	153	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	217	18NOV1963	725	6216S	7859W	4826	523	28	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			350	5	1.5	0.0	340	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.91	34.233	27.21	87.30	0.000	14654						
OBS	2	3.91	34.233	27.21			14654						
STD	10	3.90	34.207	27.19	89.16	.009	14655						
STD	20	3.87	34.187	27.18	90.50	.018	14655						
OBS	22	3.86	34.184	27.17			14655	728					
STD	30	3.82	34.186	27.18	90.18	.027	14655						
OBS	43	3.75	34.188	27.19			14654	740					
STD	50	3.73	34.183	27.19	89.64	.045	14654						
OBS	64	3.67	34.169	27.18			14653	739					
STD	75	3.58	34.162	27.18	90.12	.067	14651						
OBS	86	3.47	34.157	27.19			14648	742					
STD	100	3.37	34.157	27.20	88.50	.090	14647						
STD	150	3.10	34.156	27.22	86.41	.133	14643						
OBS	160	3.06	34.158	27.23			14643	690					
STD	200	2.90	34.170	27.25	83.88	.176	14643						
OBS	242	2.76	34.170	27.27			14643	721					
STD	250	2.73	34.164	27.26	83.12	.218	14644						
OBS	270	3.15	34.150	27.22			14664	740					
STD	300	2.57	34.145	27.26	83.44	.259	14644						
OBS	322	2.50	34.147	27.27			14645	704					
STD	400	2.16	34.141	27.29	80.87	.341	14642						
OBS	486	1.87	34.151	27.32			14644	677					
STD	500	1.87	34.158	27.33	76.98	.420	14647						
STD	600	1.99	34.221	27.37	74.15	.496	14669						
OBS	667	2.15	34.275	27.40			14687	554					
STD	700	2.20	34.298	27.42	70.46	.568	14695						
STD	800	2.36	34.366	27.46	67.12	.637	14719						
OBS	872	2.41	34.427	27.50			14734	445					

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	218	18NOV1963	1340	6236S	7856W	4812	523	28	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		340	5	4.2	0.0	340	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.50	33.985	27.28	80.27	0.000	14502						
OBS	2	.50	33.985	27.28			14502	821					
STD	10	.50	33.973	27.27	81.16	.008	14503						
STD	20	.50	33.963	27.26	81.91	.016	14505						
OBS	29	.50	33.958	27.26			14506	815					
STD	30	.50	33.958	27.26	82.22	.024	14506						
STD	50	.47	33.966	27.27	81.38	.041	14508						
OBS	55	.45	33.969	27.27			14508	816					
STD	75	.30	33.963	27.28	80.92	.061	14504						
OBS	82	.28	33.965	27.28			14504	805					
STD	100	.62	34.021	27.30	78.00	.081	14524						
OBS	110	.84	34.055	27.32			14535	786					
STD	150	.99	34.077	27.33	75.96	.119	14549						
OBS	165	.95	34.071	27.32			14550	766					
STD	200	.97	34.079	27.33	75.72	.157	14557						
OBS	220	.99	34.086	27.33			14560	746					
STD	250	1.15	34.109	27.34	74.78	.195	14573						
STD	300	1.43	34.153	27.36	73.65	.232	14594						
OBS	331	1.62	34.184	27.37			14608	636					
STD	400	1.74	34.236	27.40	70.31	.304	14625						
OBS	442	1.77	34.266	27.42			14634	570					
STD	500	1.91	34.314	27.45	65.52	.372	14650						
STD	600	2.12	34.394	27.50	62.35	.436	14677						
OBS	662	2.24	34.442	27.53			14693	448					
STD	700	2.24	34.466	27.55	58.26	.496	14699						
STD	800	2.23	34.521	27.59	54.40	.553	14716						
OBS	885	2.23	34.560	27.62			14730	419					
STD	900	2.23	34.568	27.63	51.31	.605	14733						
STD	1000	2.22	34.621	27.67	47.94	.655	14750						
OBS	1107	2.16	34.638	27.69			14765	417					

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	219	19NOV1963	1205	6157S	7755W	4770	523	17	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			285	7	3.6	0.0	280	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.94	34.199	27.18	90.15	0.000	14655						
OBS	2	3.94	34.199	27.18			14655	737	125	245	27	816	
STD	10	3.93	34.197	27.18	90.27	.009	14657						
STD	20	3.93	34.192	27.17	90.65	.018	14658						
OBS	26	3.92	34.187	27.17			14658	726	083	282	25	815	
STD	30	3.92	34.181	27.17	91.46	.027	14659						
OBS	49	3.90	34.156	27.15			14661	728	038	271	25	813	
STD	50	3.90	34.156	27.15	93.29	.046	14661						
OBS	73	3.91	34.171	27.16			14665	724	057	285	25	817	
STD	75	3.91	34.173	27.16	92.57	.069	14666						
OBS	98	3.87	34.185	27.17			14668	725	099	249	24	814	
STD	100	3.85	34.184	27.17	91.08	.092	14668						
OBS	150	3.38	34.152	27.20			14655	689	074	339	26	812	
STD	150	3.38	34.152	27.20	89.28	.137	14655						
OBS	200	3.05	34.167	27.24			14649	672	093	304	31	804	
STD	200	3.05	34.167	27.24	85.43	.181	14649						
STD	250	2.83	34.165	27.26	83.87	.223	14648						
STD	300	2.66	34.157	27.27	83.30	.265	14648						
OBS	306	2.64	34.156	27.27			14648	707	100	339	30	811	
STD	400	2.36	34.149	27.28	82.08	.347	14652						
OBS	416	2.32	34.148	27.29			14652	704	134	328	31	806	
STD	500	1.96	34.122	27.29	80.41	.429	14650						
STD	600	1.66	34.124	27.32	78.57	.508	14653						
OBS	634	1.59	34.120	27.32			14655	675	152	377	42	807	
STD	700	1.77	34.188	27.36	74.75	.585	14675						
STD	800	2.11	34.300	27.42	69.68	.657	14708						
OBS	852	2.32	34.363	27.46			14726	489	153	343	56	798	
STD	900	2.37	34.379	27.47	66.76	.725	14737						
STD	1000	2.36	34.415	27.50	64.58	.791	14753						
OBS	1078	2.38	34.445	27.52			14767	432	141	415	69	792	
OBS	1176	2.34	34.543	27.60			14783	416	103	395	80	791	
STD	1250	2.31	34.586	27.64	52.08	.937	14795						
OBS	1444	2.24	34.644	27.69			14824	416	095	392	89	796	
STD	1500	2.22	34.656	27.70	47.39	1.061	14833						
OBS	1724	2.11	34.684	27.73			14865	424	103	342	90	796	
STD	1750	2.09	34.684	27.73	44.70	1.176	14869						
OBS	1999	1.87	34.682	27.75			14901	442	161	392	91	795	
STD	2000	1.87	34.682	27.75	43.79	1.287	14901						
STD	2250	1.73	34.721	27.79	40.01	1.392	14937						
OBS	2278	1.71	34.725	27.80			14941	468	111	385	110	796	
STD	2500	1.55	34.717	27.80	39.63	1.491	14972						
OBS	2562	1.50	34.712	27.80			14980	455	079	393	107	796	
STD	2750	1.36	34.714	27.81	37.63	1.588	15006						
OBS	2827	1.31	34.716	27.82			15017	466	128	407	121	796	
STD	3000	1.23	34.716	27.82	36.62	1.680	15042						
OBS	3111	1.17	34.715	27.83			15059	472	193	405	120	794	
STD	3250	1.06	34.709	27.83	35.15	1.770	15078						
OBS	3390	.96	34.703	27.83			15098	484	143	406	132	794	
STD	3500	.90	34.705	27.84	34.00	1.857	15114						
OBS	3676	.83	34.710	27.84			15141	485	106	407	128	794	
STD	3750	.80	34.710	27.85	31.65	1.939	15152						
STD	4000	.69	34.707	27.85	30.56	2.016	15191						
OBS	4238	.61	34.702	27.85			15230	495	074	405	140	792	
STD	4500	.55	34.697	27.85	29.58	2.167	15272						
OBS	4731	.51	34.693	27.85			15312	490	134	391	148	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	220	21NOV1963	843	6113S	7903W	4916	523	19	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			20	4	3.7	0.0	350	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	2.98	34.140	27.22	85.84	0.000	14614						
OBS	2	2.98	34.140	27.22			14614	754	071	205	25	810	
STD	10	2.98	34.131	27.22	86.55	.009	14615						
STD	20	2.97	34.119	27.21	87.43	.017	14616						
OBS	25	2.97	34.113	27.20			14616	759	095	164	22	811	
STD	30	2.97	34.104	27.20	88.57	.026	14617						
OBS	48	2.96	34.085	27.18			14619	756	090	222	22	808	
STD	50	2.96	34.088	27.18	89.78	.044	14620						
OBS	69	2.87	34.122	27.22			14619	761	104	130	21	808	
STD	75	2.74	34.123	27.23	85.68	.066	14615						
OBS	93	2.35	34.118	27.26			14601	722	172	233	23	814	
STD	100	2.33	34.124	27.27	81.98	.087	14601						
OBS	137	2.37	34.152	27.29			14609	695	078	234	23	811	
STD	150	2.26	34.144	27.29	80.11	.127	14606						
OBS	181	1.94	34.115	27.29			14597	730	047	240	25	809	
STD	200	1.86	34.110	27.29	79.78	.167	14597						
STD	250	1.73	34.106	27.30	79.26	.207	14599						
OBS	272	1.71	34.109	27.30			14601	731	087	244	26	810	
STD	300	1.56	34.105	27.31	78.29	.246	14600						
OBS	365	1.29	34.106	27.33			14598	745	108	254	27	806	
STD	400	1.38	34.134	27.35	75.17	.323	14608						
STD	500	1.79	34.231	27.39	70.85	.396	14644						
OBS	557	2.14	34.298	27.42			14669	555	087	240	55	795	
STD	600	2.28	34.324	27.43	69.13	.466	14683						
STD	700	2.48	34.386	27.46	66.56	.534	14709						
OBS	770	2.51	34.431	27.50			14722	446	160	262	60	793	
STD	800	2.47	34.461	27.52	61.14	.598	14726						
OBS	833	2.41	34.492	27.55			14729	435	188	326	72	789	
STD	900	2.36	34.518	27.58	56.38	.657	14738						
OBS	998	2.34	34.539	27.60			14753	415	063	291	79	791	
STD	1000	2.34	34.540	27.60	55.11	.712	14754						
OBS	1087	2.31	34.586	27.64			14767	413	207	293	83	787	
STD	1250	2.25	34.644	27.69	47.14	.840	14793						
OBS	1344	2.21	34.665	27.71			14806	414	185	306	87	789	
STD	1500	2.14	34.687	27.73	44.21	.954	14830						
OBS	1602	2.08	34.695	27.74			14844	422	130	229	91	791	
STD	1750	1.99	34.706	27.76	41.84	1.062	14865						
OBS	1860	1.91	34.713	27.77			14880	437	199	302	97	795	
STD	2000	1.81	34.720	27.78	40.28	1.165	14899						
OBS	2132	1.71	34.725	27.80			14917	449	183	218	105	793	
STD	2250	1.62	34.724	27.80	38.47	1.263	14933						
OBS	2399	1.51	34.777	27.85			14954	455	175	272	113	794	2
STD	2500	1.44	34.725	27.82	37.62	1.358	14967						
OBS	2672	1.32	34.722	27.82			14991	462	136	239	118	794	
STD	2750	1.28	34.722	27.82	35.99	1.450	15002						
STD	3000	1.15	34.721	27.83	35.24	1.539	15039						
OBS	3222	1.04	34.721	27.84			15072	478	177	267	128	799	
STD	3250	1.02	34.720	27.84	33.71	1.625	15076						
STD	3500	.85	34.710	27.84	32.82	1.709	15111						
STD	3750	.69	34.701	27.85	30.76	1.788	15148						
OBS	3769	.68	34.700	27.85			15151	491	234	297	142	794	
STD	4000	.61	34.700	27.85	29.73	1.864	15187						
OBS	4323	.55	34.702	27.86			15242	499	167	271	148	793	
STD	4500	.53	34.699	27.85	29.15	2.011	15271						
OBS	4829	.51	34.690	27.85			15329	510	182	252	167	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	221	22NOV1963	1430	5953S	7903W	4994	487	99	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		270	4	2.0	0.0	240	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.68	34.253	27.14	93.58	0.000	14687						
OBS	2	4.68	34.253	27.14			14687	720	116	220	14		
STD	10	4.66	34.241	27.13	94.34	.009	14688						
STD	20	4.65	34.230	27.13	95.12	.019	14689						
OBS	25	4.64	34.225	27.12			14689	720	161	206	18	807	
STD	30	4.64	34.222	27.12	95.64	.028	14690						
OBS	50	4.63	34.028	26.97			14690			202		807	2
STD	50	4.63	34.223	27.12	95.73	.048	14693						
OBS	75	4.65	34.220	27.12			14697	713	113	219	15	811	
STD	75	4.65	34.220	27.12	96.59	.072	14697						
OBS	98	4.63	34.224	27.12			14700	715	181	215	12	816	
STD	100	4.61	34.224	27.13	95.81	.096	14700						
STD	150	4.11	34.219	27.18	91.34	.142	14687						
OBS	153	4.08	34.219	27.18			14686	710	180	241	13	815	
OBS	197	4.33	34.223	27.16			14703	703	185	229	12	812	
STD	200	4.33	34.223	27.16	93.88	.189	14704						
STD	250	4.31	34.220	27.16	94.32	.236	14711						
OBS	296	4.16	34.213	27.17			14712	700	177	240	15	811	
STD	300	4.15	34.212	27.17	93.77	.283	14713						
OBS	394	3.89	34.188	27.17			14716	696	192	258	17	805	
STD	400	3.88	34.188	27.17	93.82	.377	14717						
STD	500	3.63	34.186	27.20	91.57	.469	14723						
OBS	597	3.35	34.184	27.22			14726	656	163	278	19	812	
STD	600	3.33	34.183	27.22	89.93	.560	14726						
STD	700	2.76	34.170	27.27	85.41	.648	14718						
STD	800	2.36	34.156	27.29	82.82	.732	14717						
OBS	806	2.34	34.155	27.29			14717		223	281	22	809	
STD	900	2.62	34.271	27.36	77.38	.812	14746						
OBS	953	2.78	34.326	27.39			14762	514	235	292	56	798	
STD	1000	2.70	34.320	27.39	75.19	.888	14766						
OBS	1017	2.66	34.315	27.39			14767	507	261	318	49	795	
OBS	1240	2.54	34.346	27.43			14799	431	150	386	69	796	
STD	1250	2.54	34.354	27.43	71.63	1.072	14801						
STD	1500	2.41	34.574	27.62	55.62	1.231	14840						
OBS	1532	2.39	34.603	27.64			14844	405		348	83	793	
STD	1750	2.25	34.660	27.70	48.33	1.361	14876						
OBS	1819	2.20	34.665	27.71			14885	404	140	370	94	798	
STD	2000	2.07	34.689	27.74	45.65	1.478	14910						
OBS	2104	1.99	34.699	27.75			14924	411	152	320	110	796	
STD	2250	1.90	34.707	27.77	43.22	1.589	14945						
OBS	2395	1.81	34.712	27.78			14965	421	234	342	108	793	
STD	2500	1.74	34.719	27.79	41.87	1.696	14980						
OBS	2665	1.62	34.727	27.80			15003	444	129	335	109	796	
STD	2750	1.57	34.725	27.81	39.59	1.797	15015						
OBS	2949	1.45	34.716	27.81			15044	455	194	337	115	798	
STD	3000	1.42	34.714	27.81	39.41	1.896	15051						
STD	3250	1.25	34.706	27.81	37.97	1.993	15086						
STD	3500	1.09	34.701	27.82	36.91	2.087	15122						
OBS	3511	1.08	34.701	27.82			15124	475	166	342	136	799	
STD	3750	.91	34.702	27.83	33.97	2.175	15157						
STD	4000	.76	34.703	27.84	31.82	2.257	15194						
OBS	4066	.72	34.704	27.85			15204	492	215	375	126	800	
STD	4500	.56	34.703	27.86	29.45	2.411	15273						
OBS	4619	.54	34.702	27.86			15293	498	191	335	144	801	
STD	5000	.53	34.693	27.85	30.05	2.559	15359						
OBS	5005	.53	34.693	27.85			15361	505	145	369	140	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	222	23NOV1963	1734	5853S	7854W	5027	487	88	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			215	6	3.2	0.0	215	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	± ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	4.66	34.226	27.12	95.39	0.000	14686						
OBS	2	4.66	34.226	27.12			14686	719	159	227	14	817	
STD	10	4.65	34.192	27.10	97.91	.010	14687						
STD	20	4.64	34.168	27.08	99.74	.020	14688						
OBS	25	4.64	34.163	27.07			14688	716	123	195	14	814	
STD	30	4.64	34.170	27.08	99.58	.030	14689						
OBS	50	4.62	34.211	27.11			14692	727	105	226	12	816	
STD	50	4.62	34.211	27.11	96.49	.049	14692						
OBS	75	4.62	34.207	27.11			14696	714	151	227	12	813	
STD	75	4.62	34.207	27.11	97.24	.073	14696						
OBS	99	4.41	34.195	27.13			14691	708	139	200	14	812	
STD	100	4.40	34.195	27.13	95.80	.097	14691						
STD	150	4.10	34.196	27.16	92.97	.145	14686						
OBS	154	4.08	34.197	27.16			14686	693	136	245	15	817	
OBS	199	3.97	34.191	27.17			14688	683	142	260	15	816	
STD	200	3.97	34.191	27.17	92.48	.191	14689						
STD	250	3.79	34.183	27.18	91.77	.237	14689						
STD	300	3.61	34.175	27.19	91.00	.283	14690						
OBS	301	3.61	34.175	27.19			14689	683	277	221	19	800	
STD	400	3.35	34.163	27.21	90.22	.373	14694						
OBS	403	3.34	34.163	27.21			14694	650	156	281	23	806	
STD	500	2.84	34.145	27.24	86.61	.462	14688						
STD	600	2.37	34.146	27.28	83.22	.547	14684						
OBS	611	2.32	34.145	27.28			14684	684	160	289	25	808	
STD	700	2.34	34.185	27.31	80.16	.628	14700						
STD	800	2.34	34.251	27.37	75.57	.706	14717						
OBS	824	2.37	34.270	27.38			14722	548	187	322	49	801	
STD	900	2.32	34.327	27.43	70.11	.779	14734						
OBS	924	2.31	34.346	27.45			14737	511	176	343	52	796	
STD	1000	2.42	34.409	27.49	65.71	.847	14756						
OBS	1039	2.49	34.439	27.50			14765	440	188	351	63	795	
OBS	1208	2.47	34.523	27.57			14793	409		366	75	794	
STD	1250	2.45	34.540	27.59	56.99	1.000	14800						
OBS	1487	2.31	34.618	27.66			14834	409	147	350	84	794	
STD	1500	2.30	34.622	27.67	50.90	1.135	14836						
STD	1750	2.17	34.679	27.72	46.02	1.256	14872						
OBS	1764	2.16	34.681	27.73			14874	413	182	331	89	793	
STD	2000	2.01	34.710	27.76	43.38	1.368	14907						
OBS	2036	1.98	34.713	27.77			14912	427	234	344	96	794	
STD	2250	1.81	34.715	27.78	41.47	1.474	14941						
OBS	2319	1.75	34.714	27.78			14950	434	169	341	104	794	
STD	2500	1.61	34.719	27.80	40.19	1.576	14974						
OBS	2593	1.54	34.722	27.81			14987	452	223	307	100	795	
STD	2750	1.46	34.724	27.81	38.23	1.674	15010						
OBS	2871	1.40	34.724	27.82			15028	457	219	342	111	796	
STD	3000	1.31	34.723	27.82	37.36	1.769	15046						
STD	3250	1.14	34.720	27.83	35.37	1.860	15081						
OBS	3424	1.01	34.717	27.84			15106			276		794	
STD	3500	.96	34.717	27.84	33.90	1.946	15116						
STD	3750	.80	34.716	27.85	31.23	2.028	15152						
OBS	3970	.68	34.715	27.86			15186	490	220	214	126	793	
STD	4000	.67	34.714	27.86	29.68	2.104	15190						
STD	4500	.54	34.703	27.86	29.10	2.251	15272						
OBS	4526	.54	34.703	27.86			15277	497	136	179	131	792	
OBS	4946	.55	34.708	27.86			15352	498	226	245	133	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	223	24NOV1963	1641	5806S	7915W	4594	487	89	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		305	4	3.6	0.0	250	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.47	34.233	27.03	103.76	0.000	14719						
OBS	2	5.47	34.233	27.03			14719	716	149	219	13	804	
STD	10	5.46	34.216	27.02	105.04	.010	14720						
STD	20	5.45	34.200	27.01	106.18	.021	14721						
OBS	24	5.44	34.195	27.01			14721	725	125	228	10	811	
STD	30	5.43	34.190	27.01	106.75	.032	14722						
OBS	47	5.39	34.187	27.01			14723	711	103	230	9	812	
STD	50	5.31	34.189	27.02	105.69	.053	14720						
OBS	70	4.75	34.201	27.09			14700	724	156	192	12	816	
STD	75	4.72	34.202	27.10	98.73	.078	14700						
OBS	93	4.71	34.202	27.10			14702	722	102	214	11	811	
STD	100	4.64	34.202	27.11	97.76	.103	14701						
OBS	141	4.10	34.197	27.16			14684	712	164	188	12	819	
STD	150	4.02	34.195	27.17	92.29	.151	14683						
OBS	189	3.75	34.186	27.19			14677	703	113	390	14	812	
STD	200	3.69	34.183	27.19	90.28	.196	14677						
STD	250	3.46	34.173	27.20	89.22	.241	14675						
OBS	287	3.33	34.167	27.21			14675	722	190	353	18	809	
STD	300	3.28	34.166	27.22	88.43	.285	14675						
OBS	386	2.98	34.163	27.24			14676	687	123	350	23	807	
STD	400	2.92	34.160	27.24	86.31	.373	14676						
STD	500	2.55	34.159	27.28	82.89	.457	14676						
OBS	593	2.29	34.155	27.29			14680	666	204	312	28	807	
STD	600	2.29	34.159	27.30	81.58	.540	14681						
STD	700	2.31	34.220	27.34	77.26	.619	14699						
STD	800	2.42	34.298	27.40	72.88	.694	14721						
OBS	811	2.44	34.307	27.40			14724	535	192	276	46	794	
STD	900	2.51	34.365	27.44	69.20	.765	14742						
STD	1000	2.55	34.427	27.49	65.73	.833	14762						
OBS	1036	2.56	34.448	27.51			14768	434	236	277	64	791	
OBS	1248	2.40	34.563	27.61			14797	415	216	344	72	788	
STD	1250	2.40	34.564	27.61	54.67	.983	14798						
OBS	1488	2.31	34.638	27.68			14834	411	160	318	80	789	
STD	1500	2.30	34.641	27.68	49.50	1.113	14836						
OBS	1732	2.18	34.685	27.73			14870	414	225	385	83	790	
STD	1750	2.17	34.688	27.73	45.36	1.232	14873						
OBS	1970	2.05	34.717	27.76			14904	428	181	253	97	790	
STD	2000	2.03	34.719	27.77	43.02	1.342	14909						
OBS	2217	1.86	34.728	27.79			14938	429	221	360	96	790	
STD	2250	1.83	34.728	27.79	40.78	1.447	14942						
OBS	2457	1.65	34.727	27.80			14969	439	136	317	112	790	
STD	2500	1.63	34.727	27.80	39.93	1.548	14975						
OBS	2706	1.54	34.727	27.81			15006	451	246	366	113	790	
STD	2750	1.52	34.729	27.81	38.60	1.646	15013						
OBS	2958	1.40	34.735	27.83			15043	463	148	239	115	793	
STD	3000	1.38	34.731	27.82	37.60	1.741	15049						
OBS	3209	1.25	34.709	27.82			15079	470	223	334	106	789	
STD	3250	1.22	34.709	27.82	37.27	1.835	15085						
STD	3500	1.05	34.712	27.83	35.60	1.926	15120						
STD	3750	.89	34.713	27.84	32.90	2.012	15157						
OBS	3825	.85	34.716	27.85			15168	486	134	326	119	789	
STD	4000	.74	34.716	27.86	30.60	2.091	15193						
OBS	4495	.63	34.711	27.86			15275	492	212	312	128	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	224	26NOV1963	1550	5655S	7857W	4899	487	68	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			275	6	4.7	0.0	260	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	5.42	34.239	27.04	102.74	0.000	14717						
OBS	2	5.42	34.239	27.04			14717	720	146	181	16	816	
STD	10	5.41	34.236	27.04	102.95	.010	14719						
STD	20	5.40	34.234	27.04	103.09	.021	14720						
OBS	26	5.40	34.234	27.04			14720	714	161	192	19	816	
STD	30	5.40	34.235	27.04	103.08	.031	14721						
STD	50	5.38	34.238	27.05	102.87	.051	14724						
OBS	52	5.38	34.238	27.05			14724	720	137	172	14	817	
STD	75	5.39	34.235	27.05	103.68	.077	14728						
OBS	77	5.39	34.234	27.04			14728	719	143	208	15	817	
STD	100	5.40	34.221	27.03	104.86	.103	14732						
OBS	102	5.40	34.220	27.03			14732	713	160	196	11	816	
STD	150	4.91	34.208	27.08	100.75	.155	14720						
OBS	158	4.81	34.208	27.09			14717	700	164	231	12	811	
STD	200	4.65	34.219	27.12	97.53	.204	14717						
OBS	203	4.64	34.220	27.12			14717	707	154	189	16	811	
STD	250	4.52	34.187	27.11	99.02	.253	14720						
STD	300	4.42	34.148	27.09	101.44	.304	14723						
OBS	303	4.41	34.145	27.09			14723	682	144	242	18	810	
STD	400	4.24	34.168	27.12	99.15	.404	14732						
OBS	403	4.23	34.169	27.12			14732	681	169	234	17	809	
STD	500	3.99	34.177	27.15	96.11	.502	14738						
STD	600	3.73	34.178	27.18	94.52	.597	14743						
OBS	607	3.71	34.178	27.18			14743	679	215	201	24	809	
STD	700	3.47	34.183	27.21	91.82	.690	14749						
STD	800	3.26	34.186	27.23	89.73	.781	14756						
OBS	813	3.23	34.189	27.24			14757	590	179	354	34		
STD	900	3.12	34.239	27.29	85.00	.868	14767						
STD	1000	3.02	34.307	27.35	79.60	.950	14780						
OBS	1026	3.00	34.327	27.37			14783	495	206	364	53	795	
STD	1250	2.80	34.456	27.49	67.01	1.134	14814						
OBS	1304	2.75	34.483	27.52			14821	407	262	329	76	792	
STD	1500	2.57	34.549	27.59	59.33	1.292	14846						
OBS	1580	2.50	34.570	27.61			14857	391	215	352	87	792	
STD	1750	2.36	34.618	27.66	52.71	1.432	14880						
OBS	1855	2.28	34.645	27.69			14894	397	250	341	97	792	
STD	2000	2.18	34.676	27.72	48.03	1.558	14914						
OBS	2124	2.10	34.696	27.74			14932	405	232	356	105	793	
STD	2250	2.03	34.708	27.76	44.73	1.674	14950						
OBS	2401	1.94	34.716	27.77			14972	414	243	227	113	792	
STD	2500	1.88	34.719	27.78	43.76	1.784	14986						
OBS	2670	1.77	34.719	27.79			15010	432	231	230	113	794	
STD	2750	1.73	34.717	27.79	42.27	1.892	15022						
OBS	2943	1.62	34.714	27.79			15050	445	258	337	112	792	
STD	3000	1.59	34.715	27.80	41.66	1.997	15058						
OBS	3219	1.45	34.721	27.81			15090	459	231	330	118	791	
STD	3250	1.43	34.721	27.81	39.42	2.098	15094						
STD	3500	1.25	34.720	27.82	37.95	2.195	15129						
STD	3750	1.07	34.714	27.83	35.36	2.286	15164						
OBS	3761	1.06	34.714	27.83			15166	475	266	347	136	793	
STD	4000	.87	34.702	27.84	33.65	2.373	15199						
OBS	4292	.69	34.692	27.84			15242	528	218	342	149	793	4
STD	4500	.63	34.696	27.85	31.07	2.534	15275						
OBS	4835	.65	34.719	27.86			15336	496	254	358	145	792	

SHP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	225	27NOV1963	1823	5604S	7907W	5064	487	69	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			330	5	5.8	0.0	280	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	5.50	34.274	27.06	101.03	0.000	14721						
OBS	2	5.50	34.274	27.06			14721	709	124	234	13	804	
STD	10	5.49	34.251	27.05	102.73	.010	14722						
STD	20	5.48	34.230	27.03	104.28	.021	14723						
OBS	26	5.47	34.221	27.02			14723	709	161	208	12	805	
STD	30	5.47	34.218	27.02	105.13	.031	14724						
OBS	49	5.44	34.215	27.02			14725	711	118	210	11	806	
STD	50	5.44	34.215	27.02	105.21	.052	14726						
OBS	74	5.39	34.226	27.04			14727	705	187	233	11	805	
STD	75	5.39	34.226	27.04	104.28	.078	14728						
OBS	100	5.28	34.235	27.06			14727	710	204	218	12	807	
STD	100	5.28	34.235	27.06	102.42	.104	14728						
STD	150	4.88	34.240	27.11	97.99	.154	14719						
OBS	152	4.86	34.240	27.11			14718	688	238	237	13	803	
STD	200	4.78	34.237	27.12	97.65	.203	14723						
OBS	204	4.78	34.237	27.12			14723	694	190	235	11	804	
STD	250	4.73	34.236	27.12	97.76	.252	14729						
STD	300	4.67	34.233	27.13	97.85	.301	14735						
OBS	309	4.66	34.233	27.13			14735	695	214	253	11	804	
STD	400	4.49	34.222	27.14	97.95	.399	14743						
OBS	416	4.46	34.220	27.14			14744	695	267	256	13	811	
STD	500	4.28	34.214	27.15	96.51	.496	14751						
STD	600	4.06	34.213	27.18	95.47	.592	14757						
OBS	632	3.98	34.212	27.18			14759	633	213	295	20	808	
STD	700	3.80	34.217	27.21	92.90	.686	14763						
STD	800	3.56	34.218	27.23	90.70	.778	14769						
OBS	850	3.44	34.227	27.25			14772	596	224	323	29	806	
STD	900	3.36	34.250	27.28	86.75	.867	14777						
OBS	996	3.20	34.300	27.33			14787	473	237	351	38	800	
STD	1000	3.19	34.301	27.33	81.91	.951	14787						
STD	1250	2.65	34.386	27.45	70.55	1.142	14806						
OBS	1265	2.62	34.391	27.45			14807	468	150	384	62	796	
STD	1500	2.57	34.526	27.57	60.97	1.306	14846						
OBS	1539	2.57	34.547	27.58			14853	401	153		81	797	
STD	1750	2.42	34.601	27.64	54.70	1.451	14882						
OBS	1813	2.37	34.612	27.65			14890	393	115	376	92	795	
STD	2000	2.26	34.658	27.70	50.29	1.582	14917						
OBS	2082	2.21	34.675	27.72			14929	406	153	392	103	793	
STD	2250	2.10	34.690	27.74	47.02	1.703	14953						
OBS	2361	2.03	34.695	27.75			14969	404	160	330	107	792	
STD	2500	1.96	34.708	27.76	45.63	1.819	14989						
OBS	2634	1.89	34.718	27.78			15009	415	130	372	102	794	
STD	2750	1.82	34.721	27.78	43.21	1.930	15026						
OBS	2911	1.71	34.723	27.79			15048	432	216	375	113	795	
STD	3000	1.65	34.723	27.80	42.07	2.037	15061						
STD	3250	1.49	34.723	27.81	40.13	2.140	15096						
OBS	3463	1.34	34.721	27.82			15127	459	222		131	796	
STD	3500	1.31	34.721	27.82	38.69	2.238	15131						
STD	3750	1.09	34.720	27.84	35.27	2.331	15165						
STD	4000	.90	34.720	27.85	32.75	2.416	15200						
OBS	4009	.89	34.720	27.85			15202	477	186	368	136	804	
STD	4500	.73	34.707	27.85	31.81	2.577	15280						
OBS	4563	.72	34.705	27.85			15291	490	266		148	793	
STD	5000	.73	34.692	27.84	33.54	2.740	15368						
OBS	5045	.74	34.691	27.84			15377	492	239	352	145	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 10	226	29NOV1963	148	5506S	7850W	4257	487	58	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			170	8	3.4	0.0	170	7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	6.35	34.278	26.96	110.88	0.000	14755						
OBS	2	6.35	34.278	26.96			14755	708	176	204	16	813	
STD	10	6.35	34.260	26.94	112.33	.011	14757						
STD	20	6.35	34.244	26.93	113.62	.022	14758						
OBS	24	6.35	34.240	26.93			14758	696	168	344	12	811	
STD	30	6.31	34.240	26.93	113.59	.034	14758						
OBS	48	6.12	34.238	26.96			14753	695	148	212	13	806	
STD	50	6.10	34.238	26.96	111.36	.056	14753						
OBS	71	5.79	34.235	27.00			14743	711	175	211	15	805	
STD	75	5.70	34.237	27.01	107.17	.084	14741						
OBS	93	5.31	34.244	27.06			14727	683	121	218	15	804	
STD	100	5.25	34.243	27.07	101.48	.110	14726						
OBS	144	5.16	34.234	27.07			14729	661	231	245	12	800	
STD	150	5.15	34.232	27.07	101.62	.160	14730						
OBS	185	5.07	34.223	27.07			14732	668	237	199	20	804	
STD	200	5.05	34.225	27.08	101.61	.211	14734						
STD	250	4.98	34.234	27.09	100.72	.262	14739						
OBS	276	4.95	34.241	27.10			14742	687	267	250	22	803	
STD	300	4.91	34.241	27.11	100.02	.312	14745						
OBS	366	4.80	34.236	27.11			14750	668	205	177	25	805	
STD	400	4.75	34.233	27.12	100.11	.412	14754						
STD	500	4.61	34.226	27.13	99.43	.512	14765						
OBS	550	4.54	34.223	27.13			14769	656	203	248	35	807	
STD	600	4.45	34.222	27.14	99.27	.611	14774						
STD	700	4.23	34.228	27.17	96.91	.709	14781						
OBS	735	4.14	34.232	27.18			14783	603	219	298	43	808	
STD	800	3.93	34.248	27.22	92.61	.804	14785						
STD	900	3.59	34.275	27.27	87.55	.894	14788						
OBS	921	3.52	34.281	27.28			14788	514	233	311	39	806	
STD	1000	3.29	34.283	27.31	84.38	.980	14791						
OBS	1105	3.04	0.000	0.00			0						
STD	1250	2.85	34.291	27.35	79.88	1.185	14814						
OBS	1380	2.75	34.294	27.37			14774	387	263	409	67	797	
STD	1500	2.64	34.318	27.40	77.10	1.382	14846						
OBS	1654	2.51	34.373	27.45			14810	383	254	203	61	801	
STD	1750	2.42	34.441	27.51	66.43	1.561	14880						
OBS	1929	2.26	34.566	27.62			14847	359	231	389	97	800	
STD	2000	2.20	34.591	27.65	54.43	1.712	14914						
OBS	2198	2.05	34.635	27.70			14884	359	192	358	106	798	
STD	2250	2.02	34.644	27.71	49.28	1.842	14949						
OBS	2469	1.92	34.676	27.74			14924	401	253	357	04	794	
STD	2500	1.91	34.681	27.74	46.90	1.962	14987						
OBS	2735	1.84	34.708	27.77			14966	379	271	352	11	792	
STD	2750	1.84	34.708	27.77	44.46	2.076	15026						
STD	3000	1.79	34.706	27.77	45.19	2.188	15067						
OBS	3009	1.79	34.706	27.77			15010	408	191	393	13	792	
STD	3250	1.68	34.724	27.80	42.83	2.298	15105						
OBS	3286	1.66	34.727	27.80			15052	428	179	344	138	792	
STD	3500	1.47	34.730	27.82	40.41	2.402	15138						
OBS	3556	1.41	34.729	27.82			15087	395	135	353	150	790	
STD	3750	1.20	34.717	27.83	37.15	2.499	15170						
OBS	3937	1.01	34.694	27.82			15135	466	171	356	15	789	
STD	4000	.96	34.720	27.85	32.75	2.416	15200						
OBS	4319	.79	34.820	27.94			15194	429	169	352	144	792	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 11	227	28DEC1963	1602	5500S	11459W	3456	491	54	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		285	6	8.0	6.4	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	7.30	34.258	26.81			14793						
STD	0	7.30	34.258	26.81	124.64	0.000	14793						
STD	10	7.21	34.287	26.85	121.37	.012	14791						
STD	20	7.14	34.294	26.86	120.13	.024	14790						
OBS	21	7.14	34.296	26.87			14790	676	149	178	7	806	
STD	30	7.12	34.278	26.86	121.07	.036	14790						
OBS	41	7.11	34.251	26.83			14792	678	160	171	7	809	
STD	50	7.12	34.247	26.83	123.78	.061	14794						
OBS	64	7.15	34.249	26.83			14797	674	145	175	9	811	
STD	75	7.18	34.250	26.82	124.85	.092	14800						
OBS	87	7.14	34.250	26.83			14800	674	166	172	7	800	
STD	100	6.76	34.240	26.87	120.21	.123	14787						
OBS	133	5.69	34.211	26.99			14749	677	182	191	13	805	
STD	150	5.54	34.207	27.01	108.08	.180	14746						
OBS	179	5.50	34.207	27.01			14749	675	165	198	14	807	
STD	200	5.49	34.210	27.01	107.78	.234	14752						
STD	250	5.46	34.219	27.02	107.52	.287	14759						
OBS	273	5.46	34.223	27.03			14763	665	180	216	18	809	
STD	300	5.37	34.221	27.04	106.88	.341	14763						
OBS	369	5.08	34.215	27.07			14763	629	185	213	37	806	
STD	400	4.96	34.219	27.08	103.56	.446	14763						
STD	500	4.59	34.240	27.14	98.09	.547	14764						
OBS	568	4.33	34.259	27.18			14764	566	223	228	48	808	
STD	600	4.19	34.264	27.20	93.16	.643	14764						
STD	700	3.76	34.283	27.26	87.50	.733	14762						
OBS	762	3.51	34.297	27.30			14762	514	219	230	60	804	
STD	800	3.39	34.311	27.32	81.97	.818	14763						
STD	900	3.13	34.352	27.38	76.73	.897	14769						
OBS	960	3.00	34.379	27.41			14774	465	221	257	77	801	
STD	1000	2.90	34.393	27.43	71.90	.971	14776						
OBS	1094	2.72	34.433	27.48			14784	449	209	288		801	
OBS	1207	2.71	34.508	27.54			14804	411	205	275	84	801	7
STD	1250	2.64	34.517	27.55	60.79	1.137	14808						
OBS	1310	2.53	34.524	27.57			14813	423	202	296		806	
STD	1500	2.39	34.586	27.63	54.52	1.281	14839						
OBS	1534	2.38	34.599	27.64			14845	400	216	286	114	800	
OBS	1737	2.27	34.663	27.70			14874	405	214	275	120	802	
STD	1750	2.27	34.666	27.70	48.11	1.410	14876						
OBS	1976	2.15	34.698	27.74			14910	410	184	276	120	803	
STD	2000	2.12	34.701	27.74	45.55	1.527	14912						
OBS	2208	1.90	34.717	27.77			14938	413	188	269	118	808	
STD	2250	1.87	34.718	27.78	42.04	1.636	14943						
OBS	2441	1.76	34.720	27.79			14971	423	182	274	113	807	
STD	2500	1.72	34.720	27.79	41.52	1.741	14979						
OBS	2683	1.59	34.722	27.80			15005	426	201	286	133	809	
STD	2750	1.56	34.723	27.81	39.58	1.842	15014						
OBS	2956	1.49	34.728	27.81			15047	441	179	289	122	804	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	228	29DEC1963	2352	5600S	11505W	3471	491	65	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	7	5.7	.7	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	5.30	34.197	27.03			14712						
STD	0	5.30	34.197	27.03	104.53	0.000	14712						
STD	10	5.26	34.162	27.00	106.79	.011	14711						
STD	20	5.23	34.137	26.99	108.35	.021	14711						
OBS	28	5.21	34.126	26.98			14712	720	146	234	13	812	
STD	30	5.21	34.126	26.98	109.06	.032	14712						
OBS	50	5.20	34.131	26.99			14715	713	145	237	11	811	
STD	50	5.20	34.131	26.99	108.81	.054	14715						
OBS	73	5.18	34.132	26.99			14718	710	157	228	11	813	
STD	75	5.18	34.132	26.99	108.99	.081	14718						
STD	100	5.17	34.132	26.99	108.88	.108	14722						
OBS	101	5.17	34.132	26.99			14722	712	150	234	15	811	
OBS	148	5.10	34.146	27.01			14727	702	149	239	19	806	
STD	150	5.09	34.147	27.01	107.38	.163	14727						
OBS	197	4.80	34.161	27.06			14722	672	165	247	18	814	
STD	200	4.78	34.160	27.06	103.41	.215	14722						
STD	250	4.48	34.153	27.08	101.16	.266	14718						
OBS	300	4.24	34.151	27.11			14716	644	180	256	19	806	
STD	300	4.24	34.151	27.11	99.29	.316	14716						
OBS	399	4.12	34.233	27.19			14728	592	184	268	27	805	
STD	400	4.12	34.233	27.19	92.96	.413	14728						
STD	500	3.66	34.241	27.24	87.74	.503	14725						
OBS	519	3.57	34.241	27.25			14724	566	197	332	42	801	5
STD	600	3.36	34.277	27.30	83.18	.588	14729						
OBS	604	3.35	34.279	27.30			14729	534	194	308	34	802	
STD	700	3.13	34.301	27.34	79.42	.670	14736						
OBS	784	2.88	34.339	27.39			14739	498	199	328	67	798	
STD	800	2.81	34.354	27.41	72.60	.746	14739						
OBS	809	2.77	34.362	27.42			14739	484	200	319			
STD	900	2.56	34.414	27.48	66.10	.815	14745						
STD	1000	2.53	34.455	27.51	63.35	.880	14761						
OBS	1045	2.47	34.468	27.53			14766	445	215	326	79	793	
STD	1250	2.41	34.570	27.62	54.25	1.027	14798						
OBS	1295	2.40	34.591	27.63			14806	414	237	319	90	790	
STD	1500	2.30	34.650	27.69	48.71	1.155	14836						
OBS	1559	2.26	34.663	27.70			14844	408	243	306	103	789	
STD	1750	2.14	34.706	27.75	43.72	1.271	14872						
OBS	1819	2.10	34.718	27.76			14881	419	225	299	108	796	
STD	2000	1.99	34.733	27.78	41.52	1.378	14907						
OBS	2081	1.93	34.735	27.79			14918	441	229	296	115	793	
STD	2250	1.77	34.734	27.80	39.62	1.479	14939						
OBS	2349	1.68	34.733	27.80			14952	444	223	296	113	793	
STD	2500	1.58	34.738	27.82	38.45	1.577	14973						
OBS	2618	1.51	34.741	27.82			14990	452	216	309	122	793	
STD	2750	1.46	34.739	27.83	37.15	1.671	15010						
OBS	2891	1.41	34.736	27.83			15032	461	221	308	121	795	
STD	3000	1.35	34.737	27.83	36.83	1.764	15048						
OBS	3168	1.25	34.737	27.84			15073	463	229	304	129	796	
STD	3250	1.21	34.735	27.84	35.34	1.854	15085						
OBS	3444	1.14	34.727	27.84			15115	477	221	305	120	795	
STD	3500	1.13	34.725	27.84	35.77	1.943	15124						
OBS	3537	1.12	34.724	27.84			15130	488	220	311	117	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	229	31DEC1963	0330	5654S	11521W	4203	491	65	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			140	02	3.9	-0.9		6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	5.65	34.152	26.95			14725						
STD	0	5.65	34.152	26.95	111.90	0.000	14725						
STD	10	5.59	34.138	26.94	112.32	.011	14724						
STD	20	5.54	34.128	26.94	112.58	.022	14724						
OBS	25	5.52	34.125	26.94			14724	708	142	184	8	795	
STD	30	5.50	34.123	26.94	112.64	.034	14724						
OBS	47	5.47	34.122	26.95			14725	711	151	194	10	819	
STD	50	5.47	34.122	26.95	112.54	.056	14726						
OBS	72	5.45	34.118	26.95			14728	715	134	180	7	816	
STD	75	5.46	34.117	26.94	113.28	.084	14729						
OBS	97	5.45	34.114	26.94			14732	708	149	188	7	819	
STD	100	5.39	34.114	26.95	112.76	.113	14731						
OBS	145	4.37	34.124	27.07			14696	708	192	217	11	819	
STD	150	4.30	34.125	27.08	100.45	.166	14694						
OBS	193	3.90	34.133	27.13			14684	668	175	233	14	808	
STD	200	3.84	34.132	27.13	95.61	.215	14682						
STD	250	3.47	34.129	27.17	92.63	.262	14675						
OBS	291	3.27	34.134	27.19			14673	670	182	248	21	809	
STD	300	3.25	34.142	27.20	89.97	.308	14674						
OBS	388	3.19	34.232	27.28			14687	593	208	279	31	804	
STD	400	3.18	34.240	27.28	82.79	.394	14688						
STD	500	3.04	34.296	27.34	77.31	.474	14699						
OBS	590	2.89	34.331	27.38			14708	506	183	302	43	801	
STD	600	2.87	34.336	27.39	73.84	.550	14709						
STD	700	2.70	34.385	27.44	68.74	.621	14718						
OBS	786	2.56	34.427	27.49			14727	456	206	319	61	799	
STD	800	2.54	34.434	27.50	63.90	.687	14728						
STD	900	2.43	34.484	27.55	59.60	.749	14741						
OBS	984	2.36	34.523	27.58			14752	431	206	319	69	798	
STD	1000	2.35	34.530	27.59	56.00	.807	14754						
STD	1250	2.24	34.616	27.67	49.09	.938	14792						
OBS	1296	2.23	34.629	27.68			14799	442	199	317	72		
STD	1500	2.16	34.680	27.72	44.97	1.056	14830						
OBS	1662	2.09	34.709	27.75			14855	426	194	305	91	800	
STD	1750	2.03	34.718	27.77	41.55	1.164	14867						
STD	2000	1.85	34.733	27.79	39.92	1.266	14901						
OBS	2029	1.83	34.733	27.79			14905	419	210	302	101	795	
STD	2250	1.66	34.736	27.81	38.10	1.363	14934						
OBS	2344	1.59	34.736	27.81			14948	456	213	304	104	801	
STD	2500	1.50	34.739	27.82	37.39	1.458	14970						
OBS	2597	1.45	34.740	27.83			14984	450	206	314	101	803	
STD	2750	1.37	34.736	27.83	36.22	1.550	15007						
OBS	2848	1.33	34.733	27.83			15022	462	211	313	108	802	
STD	3000	1.27	34.731	27.83	36.19	1.640	15044						
OBS	3101	1.23	34.730	27.83			15060	472	202	313	102	795	
STD	3250	1.14	34.725	27.84	35.07	1.729	15081						
OBS	3354	1.07	34.722	27.84			15097	478	217	309	115	800	
STD	3500	0.00	34.722	0.00	0.00	0.000	0						
OBS	3612	0.00	34.726	0.00			0	484	221	317	129		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	230	1JAN1964	1021	5741S	11513W	4824	491	75	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			145	4	3.9	1.2	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	5.00	34.129	27.01			14699						
STD	0	5.00	34.129	27.01	106.31	0.000	14699						
STD	10	4.96	34.129	27.01	105.88	.011	14698						
STD	20	4.92	34.130	27.02	105.55	.021	14699						
OBS	24	4.91	34.130	27.02			14699	709		224	16	807	
STD	30	4.90	34.127	27.02	105.64	.032	14699						
OBS	46	4.88	34.117	27.01			14701	715		228	7	811	
STD	50	4.88	34.116	27.01	106.37	.053	14701						
OBS	71	4.88	34.117	27.01			14705	713		236	10	815	
STD	75	4.88	34.118	27.01	106.75	.080	14706						
OBS	95	4.87	34.121	27.02			14708	715		220	8	817	
STD	100	4.85	34.120	27.02	106.26	.106	14708						
OBS	142	4.65	34.112	27.03			14707	698		240	21	815	
STD	150	4.61	34.115	27.04	104.45	.159	14706						
OBS	190	4.41	34.135	27.08			14705	681		250	14	815	
STD	200	4.36	34.136	27.08	100.65	.210	14704						
STD	250	4.06	34.136	27.12	98.03	.260	14700						
OBS	287	3.82	34.132	27.14			14696	653		254	19	812	
STD	300	3.71	34.133	27.15	95.15	.308	14693						
OBS	384	3.08	34.146	27.22			14680	716		254	16	810	4
STD	400	3.05	34.150	27.22	88.31	.400	14681						
STD	500	2.97	34.183	27.26	85.02	.487	14694						
OBS	583	3.05	34.224	27.28			14712	541		309	36	803	
STD	600	3.02	34.236	27.30	82.74	.570	14714						
STD	700	2.81	34.309	27.37	75.47	.649	14722						
OBS	780	2.62	34.370	27.44			14728	482		324	57	800	
STD	800	2.59	34.381	27.45	68.32	.721	14730						
STD	900	2.45	34.431	27.50	63.65	.787	14741						
STD	1000	2.34	34.476	27.55	59.92	.849	14753						
OBS	1028	2.32	34.487	27.56			14757	446		329	71	795	
OBS	1222	2.22	34.579	27.64			14786	431		320	80	792	
STD	1250	2.22	34.590	27.65	50.74	.987	14790						
STD	1500	2.19	34.672	27.72	45.95	1.108	14832						
OBS	1517	2.19	34.676	27.72			14835	426		331	118	792	
STD	1750	2.06	34.719	27.76	41.81	1.218	14868						
OBS	1806	2.02	34.725	27.77			14876	434		307	120	794	
STD	2000	1.90	34.738	27.79	40.05	1.320	14903						
OBS	2100	1.83	34.741	27.80			14917	450		304	126	794	
STD	2250	1.71	34.744	27.81	38.13	1.418	14937						
OBS	2393	1.59	34.745	27.82			14956	461		301	133	795	
STD	2500	1.51	34.748	27.83	36.91	1.512	14970						
OBS	2684	1.39	34.750	27.84			14997	463		310	145	793	
STD	2750	1.36	34.747	27.84	35.17	1.602	15006						
STD	3000	1.23	34.735	27.84	35.38	1.690	15043						
OBS	3074	1.20	34.731	27.84			15054	475		324	153	794	
STD	3250	1.10	34.726	27.84	34.37	1.777	15080						
OBS	3371	1.03	34.724	27.84			15098	477		320	163	793	
STD	3500	.97	34.724	27.85	33.58	1.862	15117						
STD	3750	.85	34.724	27.85	31.44	1.944	15155						
OBS	3771	.84	34.724	27.86			15159	487		314	166	795	
STD	4000	.69	34.717	27.86	29.79	2.020	15191						
OBS	4171	.58	34.712	27.86			15217	491		304	180	793	
STD	4500	.48	34.717	27.87	27.13	2.162	15269						
OBS	4571	.47	34.720	27.87			15282	510		314	180	790	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	231	2 JAN 1964	2353	5900S	11453W	4936	491	94	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	4	2.8	-3.2	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.40	34.098	27.05			14673						
STD	0	4.40	34.098	27.05	102.32	0.000	14673						
STD	10	4.05	34.075	27.07	100.55	.010	14660						
STD	20	3.79	34.060	27.08	99.31	.020	14650						
OBS	24	3.72	34.056	27.09			14648	753	178	250	9	808	
STD	30	3.66	34.056	27.09	98.42	.030	14646						
OBS	46	3.61	34.056	27.10			14647	748	162	255	10	816	
STD	50	3.60	34.057	27.10	97.92	.050	14647						
OBS	70	3.60	34.064	27.10			14650	710	194	246	13	817	
STD	75	3.60	34.066	27.11	97.58	.074	14651						
OBS	94	3.58	34.073	27.11			14653	744	184	250	11	818	
STD	100	3.59	34.073	27.11	96.91	.098	14655						
OBS	141	3.31	34.070	27.14			14650	731	187	251	13	817	
STD	150	3.02	34.074	27.17	91.88	.146	14639						
OBS	188	1.73	34.097	27.29			14589	734	196	295	29	815	
STD	200	1.59	34.106	27.31	77.99	.188	14584						
STD	250	1.36	34.148	27.36	73.28	.226	14583						
OBS	284	1.53	34.181	27.37			14597	662	202	315	41	813	
STD	300	1.52	34.197	27.39	70.97	.262	14599						
OBS	379	1.56	34.281	27.45			14615	612	206	327	47	812	
STD	400	1.60	34.303	27.47	64.12	.329	14620						
STD	500	1.82	34.403	27.53	58.15	.391	14647						
OBS	575	1.99	34.468	27.57			14668	471	215	317	64	790	
STD	600	2.01	34.485	27.58	54.58	.447	14673						
STD	700	2.07	34.545	27.62	50.74	.500	14693						
OBS	770	2.08	34.578	27.65			14705	440	220	336	73	790	
STD	800	2.08	34.589	27.66	47.84	.549	14711						
STD	900	2.08	34.622	27.68	45.85	.596	14727						
STD	1000	2.08	34.647	27.70	44.53	.641	14744						
OBS	1140	2.08	34.671	27.72			14768	426	209	334	83	792	
STD	1250	2.04	34.691	27.74	41.41	.748	14784						
OBS	1336	2.00	34.704	27.76			14797	437	207	319	82	795	
STD	1500	1.92	34.721	27.78	39.32	.849	14821						
OBS	1580	1.88	34.727	27.78			14832	449	206	319	111	795	
STD	1750	1.76	34.737	27.80	37.04	.945	14855						
OBS	1871	1.67	34.740	27.81			14872	455	202	310	118	796	
STD	2000	1.58	34.738	27.82	36.19	1.036	14889						
OBS	2164	1.46	34.733	27.82			14912	460	198	308	129	797	
STD	2250	1.41	34.730	27.82	35.38	1.126	14923						
OBS	2456	1.29	34.725	27.83			14953	464	208	315	135	795	
STD	2500	1.27	34.724	27.83	35.55	1.214	14960						
OBS	2746	1.17	34.722	27.83			14997	470	203	314	139	794	
STD	2750	1.17	34.722	27.83	34.55	1.302	14997						
STD	3000	1.06	34.721	27.84	34.08	1.388	15035						
OBS	3147	1.00	34.721	27.84			15058	485	242	318	144	796	
STD	3250	.95	34.720	27.84	32.79	1.471	15073						
STD	3500	.83	34.717	27.85	32.16	1.553	15111						
OBS	3547	.81	34.716	27.85			15119	490	215	318	155	795	
STD	3750	.70	34.713	27.86	29.97	1.630	15148						
OBS	3949	.59	34.710	27.86			15178	501	218	316	157	794	
STD	4000	.57	34.709	27.86	28.50	1.703	15186						
OBS	4351	.44	34.706	27.87			15242	501	205	334	159	792	
STD	4500	.41	34.707	27.87	26.78	1.842	15266						
OBS	4751	.40	34.708	27.87			15311	506	244	328	161	792	
STD	5000	.44	34.705	27.86	27.65	1.978	15355						
OBS	5053	.45	34.704	27.86			15367	506	226	330	167	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	232	3 JAN 1964	1902	5924S	11445W	5053	491	94	13				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			200	3	2.5	-6.0	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.90	34.100	27.10			14652						
STD	0	3.90	34.100	27.10	97.21	0.000	14652						
STD	10	3.87	34.074	27.09	98.92	.010	14652						
STD	20	3.83	34.057	27.08	99.94	.020	14652						
OBS	25	3.82	34.052	27.07			14652	745	172	220	12	812	
STD	30	3.80	34.053	27.08	99.98	.030	14652						
OBS	47	3.76	34.058	27.08			14653	737	168	234	14	817	
STD	50	3.76	34.058	27.08	99.28	.050	14654						
OBS	72	3.73	34.057	27.09			14656	733	170	235	13	814	
STD	75	3.73	34.057	27.09	99.51	.075	14657						
OBS	97	3.66	34.058	27.09			14657	729	173	237	6	819	
STD	100	3.61	34.059	27.10	98.16	.099	14656						
OBS	146	2.79	34.079	27.19			14628	709	173	264	22	816	
STD	150	2.76	34.082	27.20	88.95	.146	14627						
OBS	194	2.57	34.119	27.24			14627	658	177	291	23	810	
STD	200	2.54	34.122	27.25	84.33	.189	14626						
STD	250	2.32	34.147	27.29	80.84	.231	14625						
OBS	293	2.20	34.174	27.32			14627	627	176	300	68	805	
STD	300	2.21	34.184	27.32	77.46	.270	14629						
OBS	391	2.43	34.318	27.41			14655	532	179	310	103	804	
STD	400	2.43	34.326	27.42	69.32	.344	14657						
STD	500	2.39	34.401	27.48	63.23	.410	14672						
OBS	594	2.35	34.442	27.52			14687	457	182	312	80	799	
STD	600	2.34	34.445	27.52	60.62	.472	14687						
STD	700	2.23	34.491	27.57	56.33	.530	14699						
OBS	795	2.13	34.529	27.61			14711	443	198	300	90	798	
STD	800	2.13	34.531	27.61	52.62	.585	14712						
STD	900	2.10	34.572	27.64	49.76	.636	14728						
OBS	997	2.10	34.609	27.67			14744	439	198	323	90	798	
STD	1000	2.10	34.610	27.67	47.47	.685	14744						
OBS	1250	2.05	34.686	27.74			14785	426	211	308	97	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	233	3 JAN 1964	2202	5947S	11445W	5177	491	94	13				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		180	3	2.3	-4.5	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x 10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	3.90	34.153	27.15			14653						
STD	0	3.90	34.153	27.15	93.22	0.000	14653						
STD	10	3.84	34.124	27.13	94.85	.009	14652						
STD	20	3.78	34.101	27.12	96.08	.019	14650						
OBS	24	3.76	34.094	27.11			14650	369	181	230	18	821	4
STD	30	3.73	34.085	27.11	96.89	.029	14650						
OBS	46	3.66	34.070	27.10			14649	317	175	230	19	819	4
STD	50	3.65	34.069	27.10	97.43	.048	14649						
OBS	70	3.59	34.070	27.11			14650	734	176	234	15	818	
STD	75	3.58	34.069	27.11	97.12	.072	14650						
OBS	95	3.46	34.069	27.12			14648	734	178	235	21	819	
STD	100	3.37	34.073	27.13	94.86	.096	14646						
OBS	142	2.62	34.115	27.23			14621	666	188	262	26	815	
STD	150	2.56	34.119	27.24	84.43	.141	14619						
OBS	190	2.39	34.136	27.27			14619	665	194	281	30	810	
STD	200	2.33	34.138	27.28	81.38	.183	14618						
STD	250	2.10	34.153	27.31	78.54	.223	14616						
OBS	288	1.98	34.172	27.33			14617	653	194	289	26	811	
STD	300	2.00	34.186	27.34	75.54	.261	14620						
OBS	386	2.20	34.295	27.41			14644	548	198	313	42	808	
STD	400	2.20	34.307	27.42	68.80	.333	14647						
STD	500	2.15	34.379	27.48	62.79	.399	14662						
OBS	589	2.04	34.424	27.53			14672	481	201	310	38	799	
STD	600	2.04	34.431	27.53	58.92	.460	14674						
STD	700	2.05	34.489	27.58	54.80	.517	14692						
OBS	789	2.08	34.536	27.62			14708	440	207	315	55	798	
STD	800	2.08	34.541	27.62	51.42	.570	14710						
STD	900	2.09	34.587	27.66	48.54	.620	14727						
OBS	989	2.09	34.622	27.68			14742	425	209	319	58	798	
STD	1000	2.09	34.627	27.69	46.13	.667	14744						
OBS	1241	2.01	34.694	27.75			14781	428	209	329	83	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	234	4 JAN 1964	544	5959S	11459W	4210	491	94	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			130	3	1.8	-6.8	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.10	34.117	27.19			14618						
STD	0	3.10	34.117	27.19	88.61	0.000	14618						
STD	10	3.09	34.107	27.19	89.34	.009	14620						
STD	20	3.05	34.099	27.18	89.62	.018	14619						
OBS	25	3.02	34.096	27.18			14619	694	179	263	16	803	
STD	30	2.96	34.094	27.19	89.31	.027	14617						
OBS	48	2.76	34.088	27.20			14611	746	182	262	15	808	
STD	50	2.75	34.087	27.20	88.09	.045	14611						
OBS	73	2.67	34.084	27.21			14611	755	168	217	18	814	5
STD	75	2.66	34.087	27.21	87.64	.067	14611						
OBS	98	2.47	34.120	27.25			14607	747	176	259	24	815	
STD	100	2.46	34.120	27.25	83.36	.088	14607						
OBS	146	2.15	34.097	27.26			14600	747	193	279	25	815	
STD	150	2.11	34.099	27.26	82.36	.129	14600						
OBS	194	1.73	34.128	27.32			14590	702	201	294	33	810	
STD	200	1.69	34.126	27.32	77.23	.169	14589						
STD	250	1.47	34.120	27.33	76.24	.208	14588						
OBS	292	1.42	34.125	27.34			14592	653	197	304	42	807	
STD	300	1.44	34.138	27.35	74.79	.245	14594						
OBS	388	1.74	34.312	27.46			14625	557	216	309	52	804	
STD	400	1.79	34.330	27.47	63.65	.315	14629						
STD	500	2.12	34.448	27.54	57.37	.375	14662						
OBS	587	2.32	34.512	27.58			14685	434	220	309	57	798	
STD	600	2.31	34.519	27.58	54.83	.431	14687						
STD	700	2.22	34.559	27.62	51.10	.484	14700						
OBS	784	2.09	34.581	27.65			14708	431	217	302	66	798	
STD	800	2.09	34.587	27.66	48.11	.534	14711						
STD	900	2.09	34.621	27.68	45.98	.581	14728						
OBS	984	2.11	34.650	27.70			14743	426	209	321	68	798	
STD	1000	2.10	34.656	27.71	44.10	.626	14745						
OBS	1235	1.99	34.728	27.78			14780	435	191	301	80	796	
STD	1250	1.98	34.729	27.78	37.99	.728	14782						
OBS	1453	1.90	34.736	27.79			14812	442	223	320	83	797	
STD	1500	1.87	34.738	27.79	37.46	.823	14819						
OBS	1698	1.72	34.746	27.81			14845	450	218	310	89	793	
STD	1750	1.68	34.746	27.81	35.42	.914	14852						
OBS	1944	1.53	34.744	27.82			14878	460	213	298	97	797	
STD	2000	1.49	34.743	27.83	34.77	1.002	14885						
OBS	2239	1.31	34.740	27.84			14918	476	213	311	107	795	
STD	2250	1.30	34.740	27.84	33.47	1.087	14919						
STD	2500	1.17	34.736	27.84	33.46	1.171	14955						
OBS	2534	0.00	34.735	0.00			0	476	203	311	98	793	
STD	2750	1.05	34.731	27.85	32.41	1.253	14992						
OBS	2830	1.02	34.756	27.87			14919	484	208	318	104	796	2
STD	3000	.94	34.726	27.85	32.07	1.334	15030						
OBS	3129	.88	34.724	27.85			14963	485	222	325	115	798	
STD	3250	.83	34.722	27.85	30.89	1.412	15068						
OBS	3429	.75	34.720	27.86			15009	486	208	318	117	799	
STD	3500	.72	34.719	27.86	30.32	1.489	15106						
OBS	3730	.60	34.715	27.86			15054	499	195	340	112	798	
STD	3750	.59	34.715	27.86	28.30	1.562	15143						
OBS	3982	.48	34.711	27.87			15092	502	191	333	115	797	
STD	4000	.47	34.711	27.87	26.97	1.631	15182						
OBS	4132	.42	34.713	27.87			15115	508	184	321	118	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	235	5 JAN 1964	1134	6030S	11456W	4907	527	4	13				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		50	4	1.5	-5.3	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.40	34.129	27.18			14631						
STD	0	3.40	34.129	27.18	90.36	0.000	14631						
STD	10	3.35	34.101	27.16	92.02	.009	14630						
STD	20	3.31	34.083	27.15	93.11	.018	14630						
OBS	21	3.31	34.082	27.15			14630	760	155		7	803	
STD	30	3.31	34.078	27.14	93.53	.028	14632						
OBS	41	3.31	34.078	27.14			14633	760	148		4	814	
STD	50	3.29	34.076	27.14	93.64	.046	14634						
OBS	63	3.26	34.074	27.14			14635	749	177		6	812	
STD	75	3.25	34.074	27.15	93.73	.070	14636						
OBS	85	3.19	34.077	27.15			14635	749	168		10	814	
STD	100	2.74	34.091	27.21	87.86	.093	14619						
OBS	129	1.79	34.124	27.31			14582	727	205		25	806	
STD	150	1.62	34.139	27.33	75.66	.133	14578						
OBS	172	1.62	34.153	27.34			14582	691	205		28	803	
STD	200	1.62	34.178	27.36	72.83	.171	14587						
STD	250	1.73	34.231	27.40	69.85	.206	14601						
OBS	262	1.78	34.245	27.41			14605	608	192		39	799	
STD	300	1.92	34.297	27.44	66.57	.240	14618						
OBS	352	2.10	34.365	27.48			14635	524	217		49	795	
STD	400	2.12	34.399	27.50	61.13	.304	14644						
STD	500	2.04	34.449	27.55	56.59	.363	14658						
OBS	539	1.97	34.460	27.56			14661	478	202		65	795	
STD	600	1.93	34.491	27.59	53.38	.418	14670						
STD	700	1.89	34.542	27.63	49.39	.469	14685						
OBS	725	1.89	34.554	27.64			14689	452	232		73	791	
STD	800	1.95	34.590	27.67	46.49	.517	14705						
STD	900	2.03	34.633	27.70	44.46	.563	14725						
OBS	914	2.04	34.639	27.70			14728	432	206		76	789	
STD	1000	2.11	34.678	27.73	42.54	.606	14746						
OBS	1154	1.96	34.700	27.76			14765	437	225		86	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	236	5 JAN 1964	1542	6058S	11444W	5130	527	4	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			145	3	1.5	-6.0	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.25	34.111	27.18			14625						
STD	0	3.25	34.111	27.18	90.38	0.000	14625						
STD	10	3.22	34.110	27.18	90.29	.009	14625						
STD	20	3.20	34.109	27.18	90.19	.018	14626						
OBS	23	3.20	34.108	27.18			14626	764	178	242	10	804	
STD	30	3.19	34.102	27.17	90.65	.027	14627						
OBS	45	3.18	34.089	27.16			14629	760	185	246	12	809	
STD	50	3.18	34.087	27.16	91.81	.045	14630						
OBS	69	3.20	34.084	27.16			14633	755	180	243	9	812	
STD	75	3.21	34.082	27.16	92.80	.068	14635						
OBS	93	3.17	34.082	27.16			14636	754	179	246	14	812	
STD	100	3.02	34.091	27.18	90.33	.091	14631						
OBS	140	2.05	34.151	27.31			14596	680	210	295	19	807	
STD	150	1.95	34.157	27.32	76.70	.133	14593						
OBS	187	1.76	34.169	27.35			14591	680	214	304	24	804	
STD	200	1.71	34.174	27.35	73.79	.171	14591						
STD	250	1.61	34.199	27.38	71.33	.207	14595						
OBS	285	1.62	34.222	27.40			14601	633	224	316	31	800	
STD	300	1.66	34.238	27.41	68.94	.242	14606						
OBS	382	1.91	34.332	27.47			14631	542	230	325	41	794	
STD	400	1.94	34.351	27.48	63.27	.308	14636						
STD	500	2.06	34.447	27.55	56.95	.368	14659						
OBS	580	2.10	34.509	27.59			14674	458	232	326	62	790	
STD	600	2.11	34.521	27.60	52.84	.423	14678						
STD	700	2.15	34.569	27.64	49.74	.474	14697						
OBS	776	2.16	34.595	27.66			14710	427	230	324	70	791	
STD	800	2.15	34.602	27.66	47.56	.523	14714						
STD	900	2.10	34.627	27.69	45.60	.570	14728						
OBS	972	2.05	34.643	27.70			14738	428	230	315	69	790	
STD	1000	2.04	34.651	27.71	43.83	.614	14742						
OBS	1218	1.98	34.710	27.76			14777	444	223	313	79	792	
STD	1250	1.97	34.715	27.77	38.87	.718	14781						
STD	1500	1.86	34.742	27.80	37.06	.813	14818						
OBS	1547	1.83	34.744	27.80			14825	449	214	306	88	789	
STD	1750	1.67	34.747	27.82	35.21	.903	14852						
OBS	1831	1.60	34.747	27.82			14882	460	210	310	96	790	
STD	2000	1.47	34.749	27.83	34.24	.990	14885						
OBS	2121	1.39	34.749	27.84			14902	473	218	309	97	790	
STD	2250	1.31	34.746	27.84	33.08	1.074	14920						
STD	2500	1.18	34.739	27.85	33.29	1.157	14956						
OBS	2515	1.17	34.739	27.85			14958	472	224	312	106	790	
STD	2750	1.07	34.735	27.85	32.35	1.239	14993						
OBS	2908	1.01	34.733	27.85			15018	482	218	324	107	790	
STD	3000	.97	34.732	27.85	32.10	1.320	15031						
STD	3250	.86	34.729	27.86	30.88	1.398	15069						
OBS	3401	.79	34.727	27.86			15093	494	213	318	112	788	
STD	3500	.73	34.726	27.86	30.11	1.474	15107						
STD	3750	.60	34.723	27.87	27.91	1.547	15144						
OBS	3898	.53	34.721	27.87			15167	502	209	320	117	790	
STD	4000	.49	34.721	27.87	26.62	1.615	15183						
OBS	4198	.44	34.720	27.88			15216	508	233	325	120	790	
STD	4500	.40	34.718	27.88	25.80	1.740	15200						
OBS	4600	.40	34.718	27.88			15284	516	219	316	125	788	
OBS	4902	.40	34.721	27.88			15338	518	221	318	122	787	
STD	5000	.40	34.718	27.88	26.22	1.877	15354						
OBS	5102	.41	34.712	27.87			15374	520	222	313	128	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	237	7JAN1964	242	6129S	11512W	5144	527	15	13				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	4	.8	-3.5	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.80	34.104	27.21			14605						
STD	0	2.80	34.104	27.21	87.04	0.000	14605						
STD	10	2.74	34.096	27.21	87.16	.009	14604						
STD	20	2.69	34.090	27.21	87.23	.017	14604						
OBS	25	2.67	34.088	27.21			14603	784	208	284	16	798	
STD	30	2.66	34.086	27.21	87.35	.026	14604						
OBS	47	2.62	34.084	27.21			14605	767	172	260	15	807	
STD	50	2.61	34.087	27.21	86.88	.044	14605						
OBS	72	2.50	34.107	27.24			14604	759	191	276	19	808	
STD	75	2.49	34.106	27.24	84.85	.065	14604						
OBS	97	2.42	34.089	27.23			14604	760	197	318	24	808	
STD	100	2.42	34.088	27.23	85.44	.086	14605						
OBS	144	2.33	34.092	27.24			14608	750	227	274	32	807	
STD	150	2.30	34.097	27.25	83.96	.129	14608						
OBS	192	2.06	34.142	27.30			14605	676	173	303	34	801	6
STD	200	2.03	34.148	27.31	78.15	.169	14605						
STD	250	1.89	34.187	27.35	74.41	.207	14607						
OBS	289	1.86	34.215	27.38			14612	625	219	316	38	800	
STD	300	1.87	34.225	27.38	71.53	.244	14615						
OBS	386	1.96	34.307	27.44			14634	551	188	348	45	793	6
STD	400	1.97	34.320	27.45	65.85	.313	14637						
STD	500	1.99	34.404	27.52	59.47	.375	14655						
OBS	584	1.98	34.467	27.57			14669	475	234	344	59	790	
STD	600	1.98	34.477	27.58	54.92	.432	14672						
STD	700	1.98	34.535	27.62	50.69	.485	14689						
OBS	780	1.99	34.577	27.66			14703	443	232	346	61	792	
STD	800	2.00	34.590	27.67	47.02	.534	14707						
STD	900	2.04	34.648	27.71	43.50	.579	14726						
OBS	978	2.07	34.687	27.74			14741	435	227	335	82	789	
STD	1000	2.07	34.699	27.75	40.55	.621	14744						
OBS	1226	1.96	34.715	27.77			14777	451	224	330	81	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	238	7JAN1964	751	6200S	11515W	5159	527	25	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			210	5	.5	-3.4	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.30	34.100	27.16			14627						
STD	0	3.30	34.100	27.16	91.65	0.000	14627						
STD	10	3.23	34.088	27.16	91.95	.009	14625						
STD	20	3.14	34.080	27.16	91.79	.018	14623						
OBS	23	3.11	34.079	27.16			14622	756	182	218	11	789	
STD	30	3.04	34.080	27.17	90.98	.028	14620						
OBS	45	2.87	34.082	27.19			14615	758	170	228	15	807	
STD	50	2.81	34.081	27.19	88.96	.046	14613						
OBS	69	2.58	34.086	27.21			14607	758	182	238	20	811	
STD	75	2.53	34.095	27.23	86.02	.067	14606						
OBS	93	2.41	34.123	27.26			14604	751	193	244	17	810	
STD	100	2.33	34.124	27.27	82.03	.088	14601						
OBS	139	1.90	34.114	27.29			14589	716	199	250	28	810	
STD	150	1.84	34.120	27.30	78.68	.129	14588						
OBS	185	1.74	34.148	27.33			14589	684	206	252	30	807	
STD	200	1.74	34.162	27.34	74.90	.167	14592						
STD	250	1.81	34.214	27.38	71.71	.204	14604						
OBS	278	1.88	34.245	27.40			14612	593	224	277	37	801	
STD	300	1.90	34.269	27.42	68.48	.239	14617						
OBS	371	1.93	34.342	27.47			14631	538	241	299	47	798	
STD	400	1.94	34.366	27.49	62.18	.304	14636						
STD	500	1.98	34.438	27.55	56.89	.364	14655						
OBS	565	2.01	34.477	27.57			14668	469	237	323	57	791	
STD	600	2.03	34.499	27.59	53.76	.419	14675						
STD	700	2.10	34.556	27.63	50.17	.471	14695						
OBS	760	2.13	34.587	27.65			14706	426	251	317	68	792	
STD	800	2.14	34.605	27.67	47.23	.519	14713						
STD	900	2.13	34.644	27.70	44.75	.565	14730						
OBS	958	2.12	34.663	27.71			14739	431	221	313	74	792	
STD	1000	2.10	34.678	27.73	42.49	.609	14746						
OBS	1207	1.99	34.733	27.78			14776	433	218	303	75	791	
STD	1250	1.96	34.737	27.79	37.23	.709	14781						
STD	1500	1.80	34.742	27.80	36.44	.801	14816						
OBS	1552	1.76	34.739	27.80			14823	449	233	305	74	794	
STD	1750	1.60	34.739	27.81	35.10	.890	14849						
OBS	1843	1.53	34.738	27.82			14861	463	218	301	86	793	
STD	2000	1.42	34.735	27.83	34.57	.977	14882						
OBS	2233	1.27	34.730	27.83			14915	469	221	298	99	794	
STD	2250	1.26	34.729	27.83	33.70	1.063	14917						
STD	2500	1.12	34.722	27.84	33.86	1.147	14953						
OBS	2628	1.06	34.719	27.84			14972	480	219	299	101	792	
STD	2750	1.01	34.718	27.84	32.74	1.230	14990						
STD	3000	.90	34.716	27.85	32.24	1.312	15028						
OBS	3121	.85	34.716	27.85			15047	482	230	305	113	793	
STD	3250	.79	34.714	27.85	30.92	1.391	15066						
STD	3500	.67	34.711	27.85	30.32	1.467	15104						
OBS	3620	0.00	34.709	0.00			0	495	227	315	119	791	
STD	3750	.57	34.708	27.86	28.45	1.541	15142						
STD	4000	.48	34.708	27.86	27.26	1.610	15182						
OBS	4021	.47	34.708	27.87			15137	504	229	307	124	790	
OBS	4423	.39	34.710	27.87			15203	510	230	315	124	790	
STD	4500	.39	34.709	27.87	26.18	1.744	15265						
OBS	4726	.38	34.709	27.87			15256	520	230	318	120	790	
OBS	4977	.37	34.714	27.88			15300	511	233	313	131	789	
STD	5000	.37	34.714	27.88	25.93	1.874	15353						
OBS	5125	.37	34.709	27.87			15326	511	229	310	130	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	239	8 JAN 1964	1116	6300S	11521W	5126	527	35	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		225	4	.6	-5.7	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Δ Δ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.50	34.130	27.26			14593						
STD	0	2.50	34.130	27.26	82.64	0.000	14593						
STD	10	2.49	34.102	27.23	84.73	.008	14594						
STD	20	2.46	34.083	27.22	85.88	.017	14593						
OBS	22	2.45	34.081	27.22			14593	785	178	237	14	801	
STD	30	2.40	34.078	27.22	85.90	.025	14592						
OBS	42	2.30	34.078	27.23			14590	774	189	243	13	811	
STD	50	2.23	34.073	27.23	85.00	.043	14588						
OBS	64	2.01	34.071	27.25			14581	768	209	256	18	812	
STD	75	1.60	34.094	27.30	78.99	.063	14565						
OBS	87	1.13	34.121	27.35			14546	116	202	208	25	813	5
STD	100	.86	34.118	27.37	72.06	.082	14536						
OBS	130	.55	34.090	27.36			14526	778	220	283	34	808	
STD	150	.45	34.092	27.37	71.56	.118	14525						
OBS	173	.45	34.108	27.38			14529	763	223	291	33	807	
STD	200	.72	34.165	27.41	67.66	.153	14547						
STD	250	1.34	34.289	27.47	62.47	.185	14584						
OBS	261	1.49	34.320	27.49			14593	571	246	318	50	799	
STD	300	1.66	34.387	27.53	57.72	.215	14608						
OBS	348	1.76	34.453	27.57			14621	502	249	327	57	793	
STD	400	1.85	34.500	27.60	51.39	.270	14634						
STD	500	1.96	34.560	27.64	47.58	.319	14656						
OBS	535	1.98	34.572	27.65			14663	442	246	323	71	790	
STD	600	2.03	34.603	27.67	45.91	.366	14676						
STD	700	2.07	34.643	27.70	43.42	.411	14694						
OBS	727	2.07	34.652	27.71			14699	423	224	321	73	792	
STD	800	2.05	34.675	27.73	41.10	.453	14710						
STD	900	2.00	34.700	27.75	39.17	.493	14725						
OBS	923	1.98	34.705	27.76			14728	433	241	307	78	791	
STD	1000	1.95	34.713	27.77	38.39	.532	14740						
OBS	1170	1.88	34.728	27.78			14765	441	246	312	82	792	
STD	1250	1.82	34.743	27.80	35.26	.624	14775						
OBS	1264	1.81	34.746	27.80			14777	449	236	301	83	794	
STD	1500	1.62	34.750	27.82	33.96	.710	14808						
OBS	1591	1.55	34.744	27.82			14820	467	222	306	89	793	
STD	1750	1.43	34.743	27.83	32.92	.794	14841						
OBS	1965	1.29	34.740	27.84			14871	474	225	318	102	795	
STD	2000	1.27	34.739	27.84	32.57	.876	14876						
STD	2250	1.14	34.735	27.84	31.88	.956	14912						
OBS	2349	1.10	34.734	27.85			14927	478	233	314	106	792	
STD	2500	1.04	34.735	27.85	31.95	1.036	14950						
STD	2750	.95	34.734	27.86	30.80	1.115	14988						
OBS	2824	.92	34.734	27.86			15000	490	223	311	97	796	
STD	3000	.85	34.728	27.86	30.76	1.192	15026						
STD	3250	.74	34.718	27.86	30.02	1.268	15064						
OBS	3300	.72	34.716	27.86			15072	491	232	321	104	795	
STD	3500	.63	34.713	27.86	29.50	1.342	15102						
STD	3750	.53	34.713	27.87	27.49	1.413	15141						
OBS	3791	.51	34.713	27.87			15148	500	229	328	112	793	
STD	4000	.45	34.715	27.87	26.37	1.481	15181						
OBS	4190	.41	34.716	27.87			15213	514	230	320	115	790	
STD	4500	.39	34.715	27.88	25.88	1.611	15266						
OBS	4591	.39	34.715	27.88			15283	498	228	332	118	789	
OBS	4893	.38	34.720	27.88			15336	512	238	317	116	792	
STD	5000	.32	34.718	27.88	24.86	1.738	15351						
OBS	5045	.29	34.716	27.88			15359	514	229	332	123	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	240	10 JAN 1964	440	6348S	11452W	5163	527	34	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	5	.7	-4.5	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.70	34.003	27.28			14511						
STD	0	.70	34.003	27.28	80.00	0.000	14511						
STD	10	.64	34.001	27.29	79.78	.008	14510						
STD	20	.58	33.999	27.29	79.54	.016	14509						
OBS	23	.56	33.999	27.29			14508	815	173	263	28	803	
STD	30	.52	33.998	27.29	79.28	.024	14508						
OBS	44	.45	33.998	27.30			14507	814	162	259	28	803	
STD	50	.43	33.998	27.30	78.71	.040	14507						
OBS	67	.36	34.000	27.30			14506	807	171	265	28	801	
STD	75	.33	34.000	27.30	78.22	.059	14506						
OBS	90	.24	34.003	27.31			14505	802	182	264	30	798	
STD	100	.12	34.012	27.32	75.95	.079	14501						
OBS	134	-.28	34.052	27.38			14489	790	189	280	35	798	
STD	150	-.37	34.067	27.39	69.15	.115	14487						
OBS	178	-.40	34.100	27.42			14491	777	202	296	37	798	
STD	200	-.19	34.150	27.45	63.62	.148	14505						
STD	250	.46	34.276	27.52	57.60	.178	14544						
OBS	268	.74	34.326	27.54			14561	623	196	329	55	796	
STD	300	1.03	34.393	27.58	52.68	.206	14580						
OBS	357	1.43	34.490	27.63			14608	514	210	340	63	795	
STD	400	1.59	34.530	27.65	46.94	.256	14623						
STD	500	1.78	34.588	27.68	43.91	.301	14649						
OBS	543	1.79	34.598	27.69			14656	449	217	342	71	794	
STD	600	1.83	34.625	27.71	42.49	.344	14668						
STD	700	1.88	34.666	27.74	39.99	.386	14687						
OBS	732	1.89	34.677	27.74			14692	439	214	330	74	796	
STD	800	1.95	34.695	27.75	38.74	.425	14707						
STD	900	2.02	34.715	27.76	38.29	.463	14726						
OBS	925	2.03	34.719	27.77			14731	445	218	328	78	796	
STD	1000	1.97	34.728	27.78	37.41	.501	14740						
OBS	1170	1.76	34.740	27.80			14759	446	190	328	80	795	
STD	1250	1.70	34.743	27.81	34.03	.591	14770						
STD	1500	1.54	34.746	27.82	33.38	.675	14805						
OBS	1529	1.53	34.746	27.83			14809	461	212	328		796	
STD	1750	1.39	34.742	27.83	32.50	.757	14839						
OBS	1812	1.35	34.740	27.83			14848	468	189	329		795	
STD	2000	1.25	34.737	27.84	32.46	.838	14875						
OBS	2183	1.15	34.734	27.84			14901	474	182	323		794	
STD	2250	1.11	34.732	27.84	31.77	.919	14911						
STD	2500	.99	34.726	27.85	31.97	.998	14947						
OBS	2563	.96	34.724	27.85			14957	488	201	333		794	
STD	2750	.89	34.722	27.85	30.96	1.077	14985						
STD	3000	.80	34.720	27.85	30.70	1.154	15024						
OBS	3038	.79	34.720	27.86			15030	490	207	322		794	
STD	3250	.71	34.718	27.86	29.62	1.230	15063						
STD	3500	.62	34.716	27.86	29.21	1.303	15102						
OBS	3506	.62	34.716	27.86			15103	500	206	326		795	
STD	3750	.53	34.713	27.87	27.50	1.374	15141						
OBS	3992	.45	34.713	27.87			15180	508	206	327	121	793	
STD	4000	.45	34.713	27.87	26.45	1.441	15181						
OBS	4387	.38	34.724	27.88			15246	506	206	344	121	793	
STD	4500	.37	34.722	27.88	25.14	1.570	15265						
OBS	4686	.37	34.717	27.88			15299	508	195	344		793	
OBS	4987	.36	34.715	27.88			15351	508	157	340		792	
STD	5000	.36	34.715	27.88	25.71	1.697	15353						
OBS	5087	.38	34.714	27.88			15370	511	165	345		790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	241	11 JAN 1964	1200	6505S	11459W	4960	527	54	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			110	5	.6	-2.3	U	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔΔ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.60	34.085	27.29			14552						
STD	0	1.60	34.085	27.29	79.39	0.000	14552						
STD	10	1.57	34.077	27.29	79.74	.008	14553						
STD	20	1.54	34.075	27.29	79.72	.016	14553						
OBS	21	1.54	34.075	27.29			14553	799	176	251	18	795	
STD	30	1.54	34.080	27.29	79.30	.024	14554						
OBS	39	1.51	34.084	27.30			14555	806	179	248	20	800	
STD	50	1.40	34.072	27.30	79.00	.040	14551						
OBS	57	1.30	34.064	27.30			14548	83	188	259	20	800	
STD	75	.97	34.066	27.32	76.89	.059	14536						
OBS	79	.89	34.069	27.33			14533	790	200	263	29	802	
STD	100	.64	34.093	27.36	72.64	.078	14526						
OBS	117	.51	34.115	27.39			14523	175	225	294	36	802	
STD	150	.30	34.130	27.41	67.81	.113	14519						
OBS	157	.28	34.134	27.41			14519	768	219	301	38	803	
STD	200	.75	34.235	27.47	62.54	.146	14549						
OBS	241	1.36	34.349	27.52			14584	572	228	341	53	805	
STD	250	1.41	34.366	27.53	57.23	.176	14588						
STD	300	1.58	34.443	27.58	52.87	.203	14605						
OBS	316	1.60	34.463	27.59			14609	556	245	341	62	803	
STD	400	1.69	34.533	27.64	47.57	.253	14628						
OBS	493	1.72	34.580	27.68			14645	463	231	334	67	799	
STD	500	1.73	34.585	27.68	43.72	.299	14646						
STD	600	1.83	34.645	27.72	41.03	.341	14668						
OBS	681	1.90	34.683	27.75			14685	442	217	300	74	797	
STD	700	1.90	34.687	27.75	38.61	.381	14688						
STD	800	1.89	34.700	27.76	37.76	.419	1474						
OBS	876	1.86	34.703	27.77			14715	441	225	318	81	797	
STD	900	1.85	34.706	27.77	37.40	.457	14719						
STD	1000	1.83	34.718	27.78	36.78	.494	14734						
OBS	1125	1.78	34.731	27.79			14753	458	217	320	79	795	
STD	1250	1.70	34.738	27.81	34.42	.583	14770						
OBS	1483	1.53	34.743	27.82			14801	464	222	318	82	793	
STD	1500	1.52	34.743	27.82	33.35	.668	14803						
STD	1750	1.34	34.739	27.83	32.22	.750	14837						
OBS	1861	1.27	34.735	27.84			14853	471	211	321	92	791	
STD	2000	1.20	34.731	27.84	32.37	.830	14873						
OBS	2249	1.09	34.724	27.84			14910	486	218	318	99	791	
STD	2250	1.09	34.724	27.84	32.07	.911	14910						
STD	2500	.98	34.716	27.84	32.50	.992	14947						
OBS	2641	.92	34.713	27.84			14968	485	176	324	104	792	
STD	2750	.88	34.712	27.84	31.62	1.072	14985						
STD	3000	.80	34.711	27.85	31.35	1.150	15024						
OBS	3035	.79	34.711	27.85			15030	493	199	330	111	793	
STD	3250	.69	34.709	27.85	29.99	1.227	15062						
OBS	3429	.61	34.708	27.86			15090	501	180	321	114	792	
STD	3500	.58	34.708	27.86	29.16	1.301	15100						
STD	3750	.47	34.707	27.86	27.07	1.371	15138						
OBS	3825	.44	34.707	27.87			15151	508	243	331	121	792	
STD	4000	.40	34.708	27.87	26.12	1.438	15179						
OBS	4221	.37	34.710	27.87			15217	509	156	323	123	792	
STD	4500	.35	34.715	27.88	25.26	1.566	15264						
OBS	4520	.35	34.715	27.88			15268	516	191	323	127	793	
OBS	4818	.34	34.713	27.88			15321	512	182	323	127	793	
OBS	4967	.36	34.708	27.87			15348	513	159	333	128	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	242	13 JAN 1964	47	6554 _s	115 ₀₇ w	4824	527	55	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			185	3	.4	-3.0	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.30	33.937	27.25			14492						
STD	0	.30	33.937	27.25	82.88	0.000	14492						
STD	10	.08	33.935	27.26	81.91	.8	14484						
STD	20	-.02	33.933	27.27	81.53	.16	14480						
OBS	24	-.03	33.932	27.27			14481	834	171	235	33	814	
STD	30	.03	33.950	27.28	80.45	.25	14485						
OBS	46	.24	33.998	27.31			14497	821	178	253	30	813	
STD	50	.23	34.000	27.31	77.56	.40	14498						
OBS	70	.14	33.997	27.31			14497	825	188	253	30	814	
STD	75	.16	33.999	27.31	77.42	.6	14499						
OBS	95	.23	34.015	27.32			14505	809	187	249	27	813	
STD	100	.18	34.021	27.33	75.52	.79	14504						
OBS	142	-.27	34.097	27.41			14491	791	201	280	37	812	
STD	150	-.23	34.118	27.43	65.96	.114	14494						
OBS	189	.17	34.230	27.50			14521	692	218	295	47	804	
STD	200	.33	34.266	27.52	57.61	.145	14530						
STD	250	1.01	34.415	27.60	50.64	.172	14571						
OBS	286	1.45	34.508	27.64			14598	502	238	325	63	795	
STD	300	1.51	34.528	27.65	45.96	.196	14603						
OBS	381	1.65	34.599	27.70			14623	457	229	312	65	793	
STD	400	1.68	34.610	27.71	41.63	.24	14628						
STD	500	1.77	34.654	27.73	38.91	.280	14649						
OBS	579	1.80	34.671	27.75			14663	445	222	302	74	795	
STD	600	1.80	34.676	27.75	38.43	.319	14667						
STD	700	1.80	34.697	27.77	36.91	.357	14683						
OBS	776	1.77	34.708	27.78			14695	449	219	302	78	799	
STD	800	1.76	34.711	27.78	35.76	.393	14698						
STD	900	1.69	34.719	27.79	34.91	.428	14712						
OBS	975	1.64	34.723	27.80			14722	459	211	288	80	799	
STD	1000	1.63	34.725	27.80	34.34	.463	14725						
OBS	1225	1.50	34.733	27.82			14757	465	216	281	83	801	
STD	1250	1.48	34.733	27.82	32.64	.547	14760						
STD	1500	1.32	34.726	27.82	32.55	.628	14795						
OBS	1505	1.32	34.726	27.82			14795	470	212	289	89	798	
STD	1750	1.19	34.724	27.83	31.58	.708	14830						
OBS	1799	1.16	34.724	27.83			14837	478	214	301	97	797	
STD	2000	1.03	34.719	27.84	31.35	.787	14865						
OBS	2089	.98	34.717	27.84			14878	488	220	307	97	795	
STD	2250	.90	34.712	27.84	30.75	.865	14901						
OBS	2384	.85	34.709	27.84			14922	486	218	291	102	796	
STD	2500	.81	34.708	27.84	31.03	.942	14939						
STD	2750	.73	34.708	27.85	29.94	1.018	14978						
OBS	2777	.72	34.708	27.85			14983	500	220	299	107	797	
STD	3000	.64	34.703	27.85	29.74	1.093	15017						
OBS	3172	.57	34.700	27.85			15043	505	219	301	109	794	
STD	3250	.54	34.700	27.85	28.54	1.166	15055						
STD	3500	.44	34.700	27.86	27.73	1.236	15093						
OBS	3570	.41	34.701	27.86			15105	509	218	301	110	795	
STD	3750	.37	34.704	27.87	25.86	1.303	15134						
OBS	3971	.33	34.705	27.87			15171	516	215	309	112	793	
STD	4000	.33	34.704	27.87	25.28	1.367	15175						
OBS	4375	.29	34.694	27.86			15240	522	218	310	116	791	
STD	4500	.29	34.697	27.87	25.46	1.494	15261						
OBS	4677	.29	34.702	27.87			15293	517	215	308	116	791	
OBS	4829	.31	34.702	27.87			15321	520	201	302	117	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	243	14JAN1964	1339	6658S	11525W	4727	527	65	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		90	4	.2	-3.0	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.15	33.976	27.29			14486						
STD	0	.15	33.976	27.29	79.15	0.000	14486						
STD	10	.13	33.965	27.29	79.89	.008	14486						
STD	20	.09	33.957	27.28	80.22	.016	14486						
OBS	29	.04	33.954	27.28			14485	834	179	239	28	808	
STD	30	.04	33.954	27.28	80.12	.024	14485						
STD	50	-.15	33.959	27.29	78.83	.040	14480						
OBS	54	-.21	33.961	27.30			14478	758	181	249	32	809	
STD	75	-.76	33.980	27.34	74.71	.059	14456						
OBS	80	-.89	33.986	27.35			14451	809	206	265	37	814	
STD	100	-1.14	34.012	27.38	70.48	.077	14443						
OBS	106	-1.17	34.022	27.39			14442	777	208	263	40	808	
STD	150	-.97	34.146	27.48	60.58	.110	14461						
OBS	153	-.92	34.158	27.49			14464	722	219	287	45	806	
STD	200	.66	34.424	27.63	47.62	.137	14548						
OBS	204	.81	34.447	27.63			14555	554	238	318	64	801	
STD	250	1.40	34.562	27.69	42.38	.160	14591						
STD	300	1.54	34.607	27.71	40.23	.180	14606						
OBS	301	1.54	34.607	27.71			14606	420	214	324	78	795	
OBS	397	1.67	34.657	27.74			14628	449	230	299	76	796	
STD	400	1.67	34.658	27.74	37.97	.219	14628						
STD	500	1.73	34.697	27.77	35.34	.256	14648						
STD	600	1.74	34.723	27.79	34.36	.291	14665						
OBS	605	1.74	34.724	27.79			14666	445	228	297	78	793	
STD	700	1.71	34.733	27.80	33.38	.325	14680						
STD	800	1.64	34.735	27.81	32.91	.358	14693						
OBS	818	1.63	34.736	27.81			14696	443	233	275	82	794	
STD	900	1.57	34.738	27.82	32.30	.390	14707						
STD	1000	1.49	34.740	27.82	31.91	.423	14719						
OBS	1034	1.46	34.740	27.83			14724	459	229	307	88	796	
STD	1250	1.32	34.740	27.84	30.53	.501	14753						
OBS	1308	1.29	34.738	27.84			14762	467	229	309	92	797	
STD	1500	1.18	34.720	27.83	31.52	.578	14788						
OBS	1531	1.16	34.717	27.83			14793	474	228	309	98	796	
STD	1750	1.04	34.713	27.83	30.80	.656	14823						
OBS	1816	1.00	34.713	27.84			14833	476	228	310	104	797	
STD	2000	.92	34.710	27.84	30.75	.733	14860						
OBS	2113	.87	34.708	27.84			14877	485	232	289	105	794	
STD	2250	.82	34.706	27.84	30.21	.809	14897						
OBS	2401	.76	34.704	27.84			14921	486	228	314	111	795	
STD	2500	.73	34.705	27.85	30.33	.885	14936						
STD	2750	.66	34.709	27.85	29.05	.959	14975						
OBS	2800	.65	34.710	27.86			14983	497	220	320	111	795	
STD	3000	.57	34.708	27.86	28.53	1.031	15014						
STD	3250	.48	34.707	27.86	27.32	1.101	15053						
STD	3500	.40	34.706	27.87	26.80	1.168	15092						
OBS	3593	.37	34.704	27.87			15107	505	241	320	118	791	
STD	3750	.35	34.697	27.86	26.02	1.234	15133						
OBS	3996	.32	34.688	27.86			15175	509	231	297	121	786	
STD	4000	.32	34.688	27.86	26.32	1.300	15175						
STD	4500	.29	34.700	27.87	25.34	1.429	15261						
OBS	4503	.29	34.700	27.87			15263	513	227	316	120	787	
OBS	4598	.28	34.696	27.87			15279	517	230	310	120	789	
OBS	4760	.31	34.695	27.86			15309	515	220	321	118	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	244	16JAN1964	45	6829S	11458W	4276	527	84	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			200	5	-1.2	-5.0	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.20	34.024	27.33			14489						
STD	0	.20	34.024	27.33	75.74	0.000	14489						
STD	10	.18	34.024	27.33	75.65	.008	14489						
STD	20	.11	34.023	27.33	75.29	.015	14488						
OBS	23	.08	34.023	27.34			14487	821	255	250	48	806	
STD	30	-.03	34.039	27.35	73.35	.023	14483						
OBS	44	-.29	34.069	27.39			14474	824	256	260	51	812	
STD	50	-.38	34.067	27.39	69.53	.037	14471						
OBS	67	-.65	34.057	27.40			14461	815	263	270	55	810	
STD	75	-.86	34.063	27.41	67.98	.054	14452						
OBS	92	-1.25	34.090	27.44			14437	781	278	276	59	809	
STD	100	-1.26	34.113	27.46	62.32	.070	14438						
OBS	136	-.78	34.246	27.55			14469	639	289	265	70	803	
STD	150	-.40	34.304	27.58	50.96	.099	14489						
OBS	185	.61	34.442	27.64			14543	525	265	327	81	799	
STD	200	.89	34.486	27.66	44.40	.122	14559						
STD	250	1.55	34.598	27.71	40.79	.144	14598						
OBS	279	1.74	34.637	27.72			14611	432	296	330	90	793	
STD	300	1.81	34.654	27.73	38.77	.164	14618						
OBS	370	1.85	34.681	27.75			14632	429	298	318	92	792	
STD	400	1.84	34.690	27.76	36.98	.202	14636						
STD	500	1.84	34.711	27.77	35.19	.238	14653						
OBS	571	1.79	34.718	27.78			14662	444	299	317	105	794	
STD	600	1.77	34.721	27.79	34.81	.273	14666						
STD	700	1.70	34.728	27.80	33.71	.307	14679						
OBS	775	1.63	34.730	27.81			14689	450	293	299	107	795	
STD	800	1.61	34.731	27.81	32.91	.340	14692						
STD	900	1.53	34.733	27.82	32.34	.373	14705						
OBS	982	1.46	34.733	27.82			14715	458	305	309	109	797	
STD	1000	1.44	34.733	27.82	32.03	.405	14717						
OBS	1246	1.27	34.728	27.83			14750	464	293	310	118	796	
STD	1250	1.27	34.728	27.83	30.87	.484	14751						
OBS	1322	1.25	34.728	27.83			14762	469	294	306	122	796	
STD	1500	1.16	34.725	27.84	30.90	.561	14787						
OBS	1617	1.08	34.723	27.84			14803	481	287	312	124	798	
STD	1750	1.00	34.721	27.84	29.82	.637	14822						
OBS	1912	.91	34.719	27.85			14845	482	293	310	130	795	
STD	2000	.86	34.717	27.85	29.65	.711	14858						
OBS	2205	.77	34.712	27.85			14888	487	289	313	135	797	
STD	2250	.75	34.711	27.85	29.13	.785	14895						
OBS	2499	.68	34.707	27.85			14934	498	248	315	141	794	
STD	2500	.68	34.707	27.85	29.57	.858	14934						
STD	2750	.60	34.708	27.86	28.30	.930	14972						
OBS	2899	.55	34.710	27.86			14996	509	234	308	142	794	
STD	3000	.51	34.710	27.86	27.62	1.000	15011						
STD	3250	.43	34.710	27.87	26.32	1.068	15050						
OBS	3300	.41	34.710	27.87			15059	510	213	315	145	793	
STD	3500	.38	34.710	27.87	26.27	1.133	15091						
OBS	3601	.37	34.710	27.87			15109	506	200	317	149	795	
STD	3750	.35	34.708	27.87	25.24	1.198	15133						
OBS	3902	.32	34.706	27.87			15159	517	240	311	151	792	
STD	4000	.30	34.706	27.87	24.69	1.260	15174						
OBS	4222	.28	34.707	27.88			15213	515	212	307	152	791	
OBS	4305	.30	34.706	27.87			15228	513	242	306	153	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	245	17JAN1964	839	7001S	11501W	3478	563	5	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			165	3	-2.4	-7.0	0	1					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.20	32.795	26.40			14407						
STD	0	-1.20	32.795	26.40	164.34	0.000	14407						
STD	10	-.55	33.317	26.79	126.37	.015	14446						
STD	20	-.18	33.686	27.08	99.66	.026	14470						
OBS	25	-.09	33.813	27.17			14476	845	150	215	53	794	
STD	30	-.12	33.863	27.22	86.34	.035	14477						
OBS	48	-.56	33.905	27.27			14460	829	194	233	58	798	
STD	50	-.65	33.921	27.29	79.52	.052	14456						
OBS	73	-1.49	34.112	27.47			14423	716	214	298	66	804	
STD	75	-1.48	34.123	27.48	61.29	.069	14424						
OBS	98	-1.09	34.221	27.55			14448	618	216	287	62	807	
STD	100	-1.05	34.228	27.55	54.29	.084	14450						
OBS	146	-.13	34.363	27.62			14502	549	221	310	73	805	
STD	150	-.04	34.378	27.63	47.16	.109	14507						
OBS	195	.94	34.531	27.69			14561	474	226	302	80	801	
STD	200	1.01	34.540	27.70	41.10	.131	14565						
STD	250	1.54	34.608	27.71	39.93	.151	14598						
OBS	294	1.73	34.631	27.72			14613	434	241	306	86	800	
STD	300	1.74	34.636	27.72	39.53	.171	14615						
OBS	392	1.69	34.705	27.78			14629	431	235	294	85	800	
STD	400	1.69	34.708	27.78	34.39	.208	14630						
STD	500	1.65	34.727	27.80	32.36	.242	14645						
OBS	592	1.60	34.724	27.80			14657	445	229	291	87	798	
STD	600	1.59	34.724	27.80	33.02	.274	14658						
STD	700	1.51	34.728	27.81	32.05	.307	14671						
OBS	789	1.43	34.729	27.82			14682	454	226	295	102	799	
STD	800	1.42	34.729	27.82	31.39	.339	14684						
STD	900	1.33	34.725	27.82	31.15	.370	14696						
OBS	988	1.26	34.721	27.82			14707	463	228	296	99	799	
STD	1000	1.25	34.721	27.83	31.16	.401	14709						
OBS	1240	1.11	34.717	27.83			14742	469	221	290	83	799	
STD	1250	1.10	34.715	27.83	30.24	.478	14743						
OBS	1297	1.07	34.706	27.83			14750	481	226	312	104	798	
STD	1500	.95	34.705	27.83	30.39	.554	14778						
OBS	1545	.93	34.708	27.84			14785	472	204	307	115	800	
STD	1750	.83	34.710	27.84	28.85	.628	14814						
OBS	1792	.81	34.710	27.85			14820	485	202	309	115	798	
STD	2000	.72	34.703	27.85	29.13	.700	14851						
OBS	2039	.71	34.702	27.85			14857	488	223	299	120	796	
STD	2250	.63	34.702	27.85	28.41	.772	14889						
OBS	2288	.62	34.702	27.85			14895	498	217	298	126	797	
STD	2500	.53	34.699	27.85	28.30	.843	14927						
OBS	2536	0.00	34.699	0.00			0	500	223	303	122	797	
STD	2750	.43	34.702	27.86	26.67	.912	14965						
OBS	2786	.42	34.703	27.86			14867	503	224	297	128	797	
STD	3000	.39	34.701	27.86	26.80	.978	15006						
OBS	3035	.39	34.700	27.86			14908	503	226	297	114	795	
STD	3250	.37	34.699	27.86	26.36	1.045	15048						
OBS	3286	.36	34.699	27.86			14949	506	230	304	139	795	
OBS	3435	.29	34.701	27.87			14972	507	226	305	129	794	
OBS	3484	.30	34.701	27.87			14981	507	222	295	137	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	246	18JAN1964	1546	7012S	11102W	3498	563	1	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	4	-2.4	-7.4	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.40	33.413	26.83			14489						
STD	0	.40	33.413	26.83	123.34	0.000	14489						
STD	10	.34	33.667	27.04	103.60	.011	14492						
STD	20	.33	33.849	27.18	89.63	.021	14495						
OBS	24	.26	33.902	27.23			14493	849	165	206	48	810	
STD	30	.10	33.938	27.27	81.65	.030	14487						
ORS	47	-.50	33.979	27.33			14463	847	185	225	55	813	
STD	50	-.64	33.995	27.35	73.92	.045	14457						
OBS	72	-1.43	34.121	27.48			14426	668	175	283	59	802	
STD	75	-1.43	34.136	27.49	60.43	.062	14427						
ORS	97	-1.07	34.241	27.56			14449	602	224	300	61	795	
STD	100	-.99	34.255	27.57	52.42	.076	14453						
OBS	145	.37	34.631	27.81			14528	510	242	316	68	794	2
STD	150	.49	34.463	27.67	43.63	.100	14532						
OBS	193	1.32	34.595	27.72			14578	449	230	321	75	790	
STD	200	1.39	34.608	27.72	38.64	.121	14583						
STD	250	1.70	34.672	27.75	36.33	.139	14606						
OBS	290	1.72	34.691	27.77			14613	429	227	319	78	792	
STD	300	1.73	34.695	27.77	35.02	.157	14615						
OBS	386	1.70	34.713	27.79			14628	435	223	307	78	792	
STD	400	1.69	34.715	27.79	33.90	.192	14630						
STD	500	1.64	34.725	27.80	32.48	.225	14644						
OBS	585	1.58	0.000	0.00			0	454	227	301	86	794	
STD	600	1.57	34.720	27.80	33.14	.258	14657						
STD	700	1.49	34.723	27.81	32.24	.290	14670						
OBS	782	1.42	34.726	27.82			14647	457	221	307	95	798	
STD	800	1.40	34.726	27.82	31.46	.322	14683						
STD	900	1.31	34.723	27.82	31.09	.353	14695						
ORS	981	1.24	34.721	27.83			14671	464	219	305	96	794	
STD	1000	1.23	34.721	27.83	30.94	.384	14708						
OBS	1206	1.11	34.719	27.83			14703	469	227	317	75	793	7
OBS	1232	1.09	34.717	27.83			14706	470	226	314	97	793	
STD	1250	1.08	34.717	27.83	29.87	.461	14742						
OBS	1454	.98	34.722	27.84			14738	478	229	313	98	793	
STD	1500	.95	34.720	27.84	29.29	.534	14778						
OBS	1700	.84	34.707	27.84			14772	483	224	278	101	796	
STD	1750	.82	34.706	27.84	28.99	.607	14813						
OBS	1947	.73	34.705	27.85			14808	487	220	301	96	796	
STD	2000	.71	34.704	27.85	28.92	.680	14851						
OBS	2195	.64	34.701	27.85			14846	499	218	278	108	789	
STD	2250	.61	34.701	27.85	28.28	.751	14888						
ORS	2442	0.00	34.700	0.00			0	505	219	295	117	792	
STD	2500	.51	34.699	27.86	28.11	.822	14926						
OBS	2693	.44	34.698	27.86			14802	500	187	305	120	789	
STD	2750	.43	34.699	27.86	26.90	.890	14965						
ORS	2943	.40	34.701	27.86			14843	505	191	307	103	792	
STD	3000	.39	34.699	27.86	26.93	.958	15006						
OBS	3195	.36	34.697	27.86			14884	505	232	319	126	790	
STD	3250	.34	34.701	27.87	25.85	1.024	15046						
OBS	3394	.30	34.720	27.88			14915	510	216	305	120	793	
OBS	3496	.30	34.763	27.92			14933	508	231	321	97	793	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	247	19 JAN 1964	2223	7006S	10645W	3658	562	6	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			310	3	-1.1	-7.0	0	1					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.95	33.860	27.15			14520						
STD	0	.95	33.860	27.15	92.33	0.000	14520						
STD	10	.76	33.868	27.17	90.62	.009	14514						
STD	20	.44	33.888	27.21	87.27	.018	14501						
OBS	24	.28	33.900	27.23			14494	844	214	307	52	806	
STD	30	-.08	33.922	27.26	81.99	.027	14479						
OBS	46	-1.00	34.000	27.36			14440	769	212	235	62	804	
STD	50	-1.13	34.023	27.39	69.94	.042	14435						
OBS	71	-1.30	34.160	27.50			14433	639	243	280	64	802	
STD	75	-1.17	34.190	27.52	57.17	.058	14440						
OBS	95	-.34	34.330	27.60			14483	564	246	292	67	799	
STD	100	-.19	34.355	27.62	48.26	.071	14492						
OBS	143	.82	34.510	27.68			14547	481	248	301	73	794	
STD	150	.96	34.533	27.69	41.23	.093	14554						
OBS	191	1.60	34.640	27.74			14591	435	246	306	85	793	
STD	200	1.67	34.650	27.74	37.45	.113	14596						
STD	250	1.88	34.683	27.75	36.86	.131	14614						
OBS	288	1.86	34.680	27.75			14619	425	231	307	87	790	
STD	300	1.86	34.683	27.75	37.02	.150	14621						
OBS	385	1.83	34.700	27.77			14633	430	231	303	87	789	
STD	400	1.82	34.702	27.77	35.90	.186	14636						
STD	500	1.76	34.714	27.78	34.27	.221	14649						
OBS	583	1.69	34.720	27.79			14660	447	230	294	93	789	
STD	600	1.68	34.721	27.80	33.95	.256	14662						
STD	700	1.59	34.727	27.81	32.82	.289	14675						
OBS	780	1.52	34.730	27.81			14685	452	229	295	99	793	
STD	800	1.51	34.730	27.81	32.01	.321	14687						
STD	900	1.43	34.731	27.82	31.62	.353	14701						
OBS	979	1.38	34.730	27.82			14711	461	235	286	101	793	
STD	1000	1.37	34.729	27.82	31.58	.385	14714						
OBS	1228	1.21	34.720	27.83			14745	469	244	296	105	795	
STD	1250	1.19	34.720	27.83	30.73	.463	14747						
OBS	1277	1.17	34.720	27.83			14751	474	212	291	111	795	
STD	1500	1.04	34.720	27.84	30.12	.539	14782						
OBS	1524	1.03	34.720	27.84			14786	476	230	300	116	795	
STD	1750	.91	34.711	27.84	29.64	.613	14818						
OBS	1771	.90	34.710	27.84			14821	486	223	289	117	796	
STD	2000	.79	34.710	27.85	29.32	.687	14854						
OBS	2016	.78	34.710	27.85			14857	498	227	301	119	795	
STD	2250	.70	34.701	27.84	29.31	.760	14892						
OBS	2264	.70	34.700	27.84			14895	492	226	337	128	793	
STD	2500	.60	34.700	27.85	29.09	.833	14930						
OBS	2512	0.00	34.700	0.00			0	500	224	292	127	791	
STD	2750	.49	34.700	27.86	27.62	.904	14968						
OBS	2763	.49	34.700	27.86			14862	500	230	296	127	790	
STD	3000	.44	34.700	27.86	27.47	.973	15008						
OBS	3013	.44	34.700	27.86			14903	503	223	286	128	792	
STD	3250	.40	34.700	27.86	26.73	1.041	15049						
OBS	3264	.40	34.700	27.86			14943	508	194	303	138	793	
STD	3500	.36	34.700	27.86	26.75	1.108	15090						
OBS	3516	.36	34.700	27.86			14985	506	220	301	142	790	
OBS	3667	.28	34.690	27.86			15007	507	196	301	142	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	248	20JAN1964	2225	7007S	10303W	3884	562	3	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			245	3	-1.3	-6.0	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.90	33.620	26.97			14515						
STD	0	.90	33.620	26.97	110.30	0.000	14515						
STD	10	.71	33.689	27.03	103.95	.011	14509						
STD	20	.38	33.761	27.11	96.67	.021	14496						
OBS	24	.21	33.790	27.14			14490	847	153	211	61	806	
STD	30	-.18	33.838	27.20	88.02	.030	14474						
OBS	46	-1.13	33.960	27.34			14434	742	191	258	65	807	
STD	50	-1.22	33.986	27.36	72.53	.046	14430						
OBS	70	-1.30	34.100	27.45			14432	653	211	289	69	802	
STD	75	-1.25	34.126	27.47	61.80	.063	14435						
OBS	94	-.90	34.220	27.54			14456	601	212	230	73	801	
STD	100	-.69	34.254	27.56	53.68	.077	14467						
OBS	140	.75	34.460	27.65			14542	487	215	326	82	795	
STD	150	.96	34.495	27.66	44.07	.102	14554						
OBS	186	1.47	34.590	27.71			14584	433	215	321	84	794	
STD	200	1.58	34.611	27.71	39.73	.123	14591						
STD	250	1.80	34.661	27.74	37.88	.142	14609						
OBS	279	1.80	34.670	27.74			14615	424	205	251	90	792	
STD	300	1.82	34.680	27.75	36.90	.161	14619						
OBS	372	1.80	34.700	27.77			14630	430	210	235	92	794	
STD	400	1.79	34.705	27.77	35.37	.197	14634						
STD	500	1.72	34.718	27.79	33.67	.231	14647						
OBS	564	1.66	34.720	27.80			14655	438	206	312	98	796	
STD	600	1.63	34.721	27.80	33.63	.265	14660						
STD	700	1.56	34.721	27.80	32.99	.298	14673						
OBS	756	1.51	34.720	27.81			14680	448	207	315	99	796	
STD	800	1.46	34.720	27.81	32.42	.331	14685						
STD	900	1.36	34.720	27.82	31.82	.363	14697						
OBS	935	1.33	34.720	27.82			14702	461	210	298	107	793	
STD	1000	1.29	34.720	27.82	31.53	.395	14710						
OBS	1202	1.17	0.000	0.00			0	468	213	218	110	797	
STD	1250	1.14	34.717	27.83	30.48	.472	14745						
STD	1500	.99	34.710	27.83	30.31	.548	14780						
OBS	1514	.98	34.710	27.83			14733	477	199	311	126	796	
STD	1750	.85	34.700	27.84	29.74	.623	14815						
OBS	1763	.84	34.700	27.84			14768	479	216	326	131	796	
STD	2000	.72	34.700	27.84	29.36	.697	14851						
OBS	2006	.72	34.700	27.84			14803	487	210	317	134	796	
OBS	2248	.60	34.700	27.85			14838	495	200	319	136	794	
STD	2250	.60	34.700	27.85	28.16	.769	14888						
OBS	2495	.52	34.700	27.86			14876	495	210	326	132	793	
STD	2500	.52	34.700	27.86	28.19	.840	14926						
OBS	2742	.45	34.690	27.85			14915	502	184	316	134	794	
STD	2750	.45	34.690	27.85	27.74	.910	14965						
OBS	2993	.39	34.700	27.86			14955	502	204	319	139	792	
STD	3000	.39	34.700	27.86	26.80	.978	15006						
OBS	3243	.39	34.700	27.86			14998	502	201	301	137	791	
STD	3250	.39	34.700	27.86	26.57	1.044	15049						
OBS	3494	.37	34.700	27.86			15040	507	197	317	146	792	
STD	3500	.37	34.700	27.86	26.84	1.111	15091						
OBS	3747	.34	34.700	27.87			15083	506	193	306	140	791	
STD	3750	.34	34.700	27.87	25.73	1.177	15133						
OBS	3917	.34	34.700	27.87			15112	501	193	314	144	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	249	22JAN1964	437	7025S	9941W	3656	561	9	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		270	5	-1.7	-7.4	0	0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	-1.60	32.570	26.22			14384						
STD	0	-1.60	32.570	26.22	180.67	0.000	14384						
STD	10	-.83	33.137	26.66	139.15	.016	14430						
STD	20	-.46	33.567	26.99	107.58	.028	14455						
OBS	24	-.42	33.700	27.10			14459	854	168	228	58	801	
STD	30	-.63	33.834	27.22	86.40	.038	14453						
OBS	47	-1.44	34.040	27.41			14420	697	222	240	66	801	
STD	50	-1.49	34.064	27.43	65.74	.053	14419						
OBS	71	-1.49	34.170	27.52			14424	649	226	243	71	800	
STD	75	-1.45	34.184	27.53	56.69	.069	14426						
OBS	96	-1.08	34.250	27.57			14448	614	225	256	72	802	
STD	100	-.95	34.266	27.58	51.75	.082	14455						
OBS	144	.53	34.440	27.65			14533	510	230	284	76	802	
STD	150	.63	34.459	27.66	44.73	.106	14539						
OBS	192	1.07	34.570	27.72			14567	464	230	300	81	800	
STD	200	1.14	34.583	27.72	38.68	.127	14571						
STD	250	1.47	34.646	27.75	36.49	.146	14595						
OBS	290	1.62	34.670	27.76			14608	432	231	288	86	798	
STD	300	1.64	34.676	27.76	35.77	.164	14611						
OBS	388	1.68	34.710	27.79			14627	434	222	292	88	798	
STD	400	1.68	34.713	27.79	33.95	.199	14629						
STD	500	1.65	34.727	27.80	32.36	.232	14644						
OBS	588	1.58	34.730	27.81			14656	450	228	294	102	799	
STD	600	1.57	34.731	27.81	32.35	.264	14658						
STD	700	1.50	34.737	27.82	31.32	.296	14671						
OBS	787	1.43	34.740	27.83			14682	457	212	300	103	800	
STD	800	1.42	34.740	27.83	30.50	.327	14684						
STD	900	1.33	34.741	27.84	29.89	.357	14696						
OBS	987	1.25	34.740	27.84			14707	461	219	306	109	798	
STD	1000	1.24	34.739	27.84	29.71	.387	14709						
OBS	1238	1.08	34.720	27.84			14740	473	222	301	115	799	
STD	1250	1.07	34.720	27.84	29.56	.461	14742						
OBS	1340	.99	34.720	27.84			14753	481	219	310	120	801	
STD	1500	.90	34.721	27.85	28.68	.534	14776						
OBS	1594	.86	34.720	27.85			14790	473	231	311	124	799	
STD	1750	.79	34.714	27.85	28.18	.605	14813						
OBS	1859	.75	34.710	27.85			14829	486	221	314	129	797	
STD	2000	.69	34.710	27.85	28.29	.676	14850						
OBS	2111	.65	34.710	27.86			14867	488	225	313	131	801	
STD	2250	.61	34.705	27.85	27.89	.746	14888						
OBS	2373	.57	34.700	27.85			14907	490	224	308	134	797	
STD	2500	.52	34.699	27.85	28.28	.816	14927						
OBS	2622	0.00	34.700	0.00			0	495	222	314	135	798	
STD	2750	.45	34.700	27.86	27.06	.885	14966						
OBS	2868	.42	34.700	27.86			14922	502	223	320	141	798	
STD	3000	.41	34.700	27.86	27.02	.953	15006						
OBS	3121	.40	34.700	27.86			14964	498	223	314	140	797	
STD	3250	.39	34.700	27.86	26.63	1.020	15049						
OBS	3357	.39	34.700	27.86			15004	499	216	315	145	800	
STD	3500	.37	34.700	27.86	26.83	1.087	15091						
OBS	3613	.37	34.700	27.86			15047	504	211	312	152	800	
OBS	3696	.40	34.700	27.86			15063	498	213	312	157	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 11	250	23 JAN 1964	2347	6922S	9515W	4314	525	95	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			250	1	-1.0	-7.5	0	1					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.90	32.120	25.84			14411						
STD	0	-.90	32.120	25.84	217.01	0.000	14411						
STD	10	-.62	32.883	26.45	159.38	.019	14437						
STD	20	-.45	33.439	26.89	117.36	.033	14454						
OBS	25	-.41	33.640	27.05			14459	958	150	247	51	826	
STD	30	-.45	33.751	27.14	93.47	.043	14460						
OBS	48	-.59	33.900	27.27			14458	827	190	270	57	816	
STD	50	-.65	33.911	27.28	80.31	.061	14456						
OBS	73	-1.33	33.970	27.35			14429	755	200	307	62	810	
STD	75	-1.37	33.969	27.35	73.40	.080	14427						
OBS	98	-1.65	33.960	27.35			14418	733	203	309	62	809	
STD	100	-1.65	33.965	27.35	72.50	.098	14418						
OBS	147	-.93	34.160	27.49			14462	636	206	322	73	804	
STD	150	-.84	34.175	27.50	58.86	.131	14467						
OBS	196	.65	34.400	27.61			14546	529	235	327	82	801	
STD	200	.72	34.413	27.61	48.83	.158	14550						
STD	250	1.46	34.541	27.67	44.33	.181	14593						
OBS	295	0.00	34.600	0.00			0	443	222	328	93	800	
STD	300	1.30	34.605	27.73	38.58	.202	14595						
OBS	393	1.89	34.660	27.73			14622	424	222	332	96	799	
STD	400	1.89	34.662	27.73	39.44	.241	14638						
STD	500	1.87	34.689	27.75	37.10	.279	14654						
OBS	595	1.86	34.700	27.76			14654	432	215	327	92	798	
STD	600	1.86	34.701	27.76	37.08	.316	14670						
STD	700	1.80	34.712	27.78	35.78	.353	14684						
OBS	794	1.73	34.720	27.79			14681	443	222	329	94	796	
STD	800	1.73	34.720	27.79	34.74	.388	14697						
STD	900	1.65	34.726	27.80	33.91	.422	14710						
OBS	995	1.57	34.730	27.81			14707	455	204	316	99	794	
STD	1000	1.57	34.730	27.81	33.38	.456	14723						
OBS	1247	1.40	34.730	27.82			14741	464	212	308	103	797	
STD	1250	1.40	34.730	27.82	32.00	.538	14757						
OBS	1468	1.25	34.720	27.82			14771	467	207	309	112	797	
STD	1500	1.23	34.720	27.83	32.06	.618	14790						
STD	1750	1.09	34.720	27.84	30.85	.696	14826						
OBS	1765	1.08	34.720	27.84			14812	481	213	300	119	797	
STD	2000	.94	34.712	27.84	30.90	.773	14861						
OBS	2065	.91	34.710	27.84			14855	480	218	294	124	796	
STD	2250	.83	34.711	27.84	30.05	.850	14898						
OBS	2365	.79	34.710	27.85			14900	485	220	299	128	796	
STD	2500	.74	34.701	27.84	30.78	.926	14936						
OBS	2667	.68	34.690	27.84			14946	495	218	301	133	796	
STD	2750	.64	34.692	27.84	30.07	1.002	14974						
OBS	2988	.54	34.700	27.85			14995	503	218	304	136	795	
STD	3000	.54	34.700	27.85	28.66	1.075	15012						
STD	3250	.45	34.700	27.86	27.36	1.145	15051						
OBS	3288	.44	34.700	27.86			15042	515	220	312	140	794	
STD	3500	.40	34.700	27.86	27.19	1.213	15092						
OBS	3589	.38	34.700	27.86			15091	530	221	304	140	794	
STD	3750	.35	34.700	27.87	25.89	1.280	15133						
OBS	3893	.33	34.700	27.87			15142	514	222	316	147	793	
STD	4000	.31	34.700	27.87	25.38	1.344	15175						
OBS	4196	.30	34.700	27.87			15193	509	222	311	148	792	
OBS	4348	.32	34.700	27.87			15221	509	218	314	155	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	251	25 JAN 1964	1003	6844S	9137W	4105	525	81	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		85	4	-1.0	-1.4	0	0						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.48	32.420	26.07			14435						
STD	0	-.48	32.420	26.07	195.39	0.000	14435						
STD	10	-.45	33.159	26.66	138.87	.017	14448						
STD	20	-.42	33.675	27.08	99.41	.029	14458						
OBS	24	-.41	33.820	27.19			14462	867	177	233	49	820	
STD	30	-.68	33.919	27.29	79.66	.038	14451						
OBS	46	-1.38	33.980	27.36			14422	742	205	278	56	812	
STD	50	-1.41	34.000	27.38	70.89	.053	14422						
OBS	71	-1.13	34.100	27.45			14440	712	218	298	57	806	
STD	75	-.99	34.128	27.47	62.49	.069	14447						
OBS	96	-.22	34.270	27.55			14488	608	225	310	66	801	
STD	100	-.13	34.284	27.56	53.93	.084	14493						
OBS	144	.44	34.360	27.59			14527	547	230	323	72	800	
STD	150	.48	34.367	27.59	50.83	.110	14530						
OBS	192	.69	34.410	27.61			14547	525	226	327	82	798	
STD	200	.76	34.420	27.62	48.53	.135	14552						
STD	250	1.17	34.485	27.64	46.55	.159	14579						
OBS	291	1.51	34.540	27.66			14602	455	235	323	88	797	
STD	300	1.56	34.552	27.67	44.45	.181	14606						
OBS	390	1.87	34.660	27.73			14635	423	234	317	95	796	
STD	400	1.87	34.666	27.74	39.03	.223	14637						
STD	500	1.88	34.705	27.77	35.93	.261	14654						
OBS	592	1.88	34.710	27.77			14670	436	214	314	99	796	
STD	600	1.88	34.711	27.77	36.45	.297	14671						
STD	700	1.81	34.724	27.79	35.06	.333	14684						
OBS	791	1.74	34.730	27.80			14696	450	214	310	104	798	
STD	800	1.73	34.730	27.80	34.07	.367	14697						
STD	900	1.65	34.731	27.80	33.61	.401	14710						
OBS	990	1.58	34.730	27.81			14722	462	210	309	110	797	
STD	1000	1.57	34.730	27.81	33.44	.434	14723						
OBS	1240	1.41	34.730	27.82			14756	460	215	312	113	801	
STD	1250	1.40	34.730	27.82	32.06	.516	14757						
STD	1500	1.23	34.721	27.83	31.96	.596	14790						
OBS	1528	1.21	34.720	27.83			14794	473	212	313	115	797	
STD	1750	1.08	34.720	27.84	30.73	.675	14825						
OBS	1779	1.06	34.720	27.84			14830	476	218	301	118	798	
STD	2000	.94	34.720	27.85	30.21	.751	14861						
OBS	2031	.92	34.720	27.85			14866	486	218	306	126	797	
STD	2250	.81	34.711	27.85	29.76	.826	14897						
OBS	2280	.80	34.710	27.85			14902	482	218	319	128	797	
STD	2500	.73	34.701	27.84	30.60	.901	14936						
OBS	2529	.72	34.700	27.84			14940	491	217	318	133	796	
STD	2750	.61	34.700	27.85	29.08	.976	14973						
OBS	2776	0.00	34.700	0.00			0	495	221	304	136	796	
STD	3000	.50	34.700	27.86	28.21	1.048	15011						
OBS	3071	.47	34.700	27.86			14943	502	221	319	142	797	
STD	3250	.44	34.700	27.86	27.19	1.117	15051						
OBS	3369	.42	34.700	27.86			14992	506	219	313	145	794	
STD	3500	.40	34.700	27.86	27.22	1.185	15092						
OBS	3664	.37	34.700	27.86			15041	513	216	320	148	795	
STD	3750	.36	34.700	27.87	25.94	1.251	15133						
OBS	3959	.33	34.700	27.87			15090	510	217	323	148	795	
STD	4000	.33	34.700	27.87	25.62	1.316	15176						
OBS	4105	.33	34.700	27.87			15115	509	219	309	152	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	252	26 JAN 1964	740	6803S	9106W	4223	525	81	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			180	3	- .3	- .7	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	- .45	33.170	26.67			14447						
STD	0	- .45	33.170	26.67	138.08	0.000	14447						
STD	10	.29	33.603	26.99	108.23	.012	14488						
STD	20	.71	33.894	27.20	88.32	.022	14513						
OBS	24	.79	33.970	27.25			14518	885	141	208	28	821	
STD	30	.75	33.973	27.26	82.50	.031	14518						
OBS	46	.31	33.980	27.29			14500	828	171	229	33	820	
STD	50	.19	33.980	27.29	78.86	.047	14496						
OBS	70	- .46	33.990	27.33			14469	812	185	242	42	820	
STD	75	- .66	34.000	27.35	73.63	.066	14461						
OBS	93	-1.27	34.040	27.40			14436	787	193	267	44	812	
STD	100	-1.37	34.050	27.42	66.80	.083	14433						
OBS	140	-1.25	34.110	27.46			14445	747	207	289	54	810	
STD	150	-1.10	34.133	27.47	61.05	.115	14454						
OBS	186	- .38	34.230	27.52			14495	650	212	306	64	803	
STD	200	- .06	34.275	27.55	54.75	.144	14512						
STD	250	.95	34.426	27.61	49.49	.170	14569						
OBS	281	1.49	34.510	27.64			14599	477	217	322	86	792	
STD	300	1.65	34.541	27.65	46.02	.194	14609						
OBS	376	1.94	34.620	27.69			14636	425	221	317	86	795	
STD	400	1.98	34.634	27.70	42.37	.238	14642						
STD	500	2.05	34.672	27.73	39.89	.280	14661						
OBS	568	1.99	34.680	27.74			14670	430	212	306	82	795	
STD	600	1.98	34.688	27.75	39.06	.319	14675						
STD	700	1.92	34.711	27.77	37.04	.357	14689						
OBS	757	1.88	34.720	27.78			14697	433	208	300	85	796	
STD	800	1.85	34.724	27.78	35.64	.393	14702						
STD	900	1.78	34.729	27.79	34.94	.429	14716						
OBS	948	1.74	34.730	27.80			14722	391	212	289	86	797	4
STD	1000	1.70	34.733	27.80	34.42	.463	14729						
OBS	1186	1.56	34.740	27.82			14753	460	202	290	92	796	
STD	1250	1.51	34.738	27.82	32.53	.547	14762						
OBS	1435	1.38	34.730	27.82			14787	465	213	300	105	796	
STD	1500	1.34	34.729	27.83	32.45	.628	14795						
OBS	1721	1.20	34.730	27.84			14826	475	219	297	110	791	
STD	1750	1.18	34.730	27.84	31.11	.708	14830						
STD	2000	1.04	34.730	27.85	30.70	.785	14866						
OBS	2008	1.04	34.730	27.85			14867	480	219	301	116	790	
STD	2250	.91	34.722	27.85	30.06	.861	14902						
OBS	2306	.88	34.720	27.85			14910	485	218	305	123	795	
STD	2500	.82	34.713	27.85	30.83	.937	14940						
OBS	2593	.79	34.710	27.85			14954	487	214	300	118	795	
STD	2750	.71	34.709	27.85	29.65	1.013	14977						
OBS	2892	.64	34.710	27.86			14999	496	213	301	118	794	
STD	3000	.59	34.710	27.86	28.69	1.086	15015						
OBS	3184	.52	34.710	27.86			15043	495	215	305	122	793	
STD	3250	.50	34.710	27.87	27.25	1.156	15053						
OBS	3478	.43	34.710	27.87			15090	501	215	306	126	793	
STD	3500	.43	34.709	27.87	26.97	1.223	15093						
STD	3750	.38	34.701	27.86	26.30	1.290	15134						
OBS	3773	.38	34.700	27.86			15139	507	221	312	137	792	
STD	4000	.34	34.706	27.87	25.36	1.355	15176						
OBS	4068	.33	34.710	27.87			15188	507	219	314	140	792	
OBS	4218	.31	34.720	27.88			15214	506	215	312	143	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	253	27JAN1964	1643	6707S	8945W	4400	524	79	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	2	1.0	- .5	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.40	32.570	26.19			14441						
STD	0	-.40	32.570	26.19	184.20	0.000	14441						
STD	10	.37	33.271	26.71	133.99	.016	14487						
STD	20	.80	33.744	27.07	100.22	.028	14515						
OBS	24	.88	33.870	27.17			14521	841	163	211	22	810	
STD	30	.84	33.875	27.17	90.49	.037	14520						
OBS	47	.30	33.888	27.21			14499	819	182	231	28	811	
STD	50	.15	33.892	27.23	85.36	.055	14493						
OBS	71	-.84	33.926	27.30			14451	814	198	252	37	812	
STD	75	-.94	33.923	27.30	78.44	.075	14447						
OBS	96	-1.17	33.969	27.34			14440	808	198	264	38	806	
STD	100	-1.17	34.055	27.41	67.05	.093	14442						
OBS	144	-.63	34.902	28.08			14486	726	215	293	50	801	
STD	150	-.48	34.852	28.03	8.84	.112	14493						
OBS	192	.61	34.265	27.50			14542	623	224	301	62	794	
STD	200	.76	34.246	27.48	61.75	.130	14549						
STD	250	1.48	34.269	27.45	65.05	.162	14590						
OBS	290	1.79	34.465	27.58			14613	479	241	336	76	789	
STD	300	1.83	34.477	27.59	52.33	.191	14617						
OBS	388	1.98	34.548	27.63			14638	431	239	330	79	788	
STD	400	1.99	34.556	27.64	48.34	.241	14641						
STD	500	2.08	34.612	27.68	44.68	.288	14662						
OBS	588	2.09	34.648	27.70			14677	425	230	311	93	786	
STD	600	2.09	34.653	27.71	42.70	.332	14679						
STD	700	2.05	34.689	27.74	39.84	.373	14694						
OBS	786	2.00	34.711	27.76			14707	428	220	308	97	791	
STD	800	1.99	34.713	27.76	37.81	.412	14709						
STD	900	1.94	34.721	27.77	37.12	.449	14723						
OBS	983	1.90	34.724	27.78			14735	439	224	305	102	788	
STD	1000	1.89	34.726	27.78	36.79	.486	14737						
OBS	1230	1.73	34.747	27.81			14768	457	215	307	108	794	
STD	1250	1.71	34.747	27.81	33.88	.574	14771						
OBS	1488	1.53	34.743	27.82			14802	463	181	306	115	796	
STD	1500	1.52	34.743	27.82	33.40	.659	14804						
OBS	1731	1.37	34.738	27.83			14835	469	177	304	119	795	
STD	1750	1.36	34.738	27.83	32.46	.741	14838						
OBS	1976	1.21	34.733	27.84			14869	477	176	306	123	796	
STD	2000	1.19	34.732	27.84	32.22	.822	14872						
STD	2250	1.03	34.725	27.84	31.31	.901	14907						
OBS	2274	1.02	34.725	27.84			14911	484	167	304	129	796	
STD	2500	.93	34.727	27.85	31.08	.979	14945						
OBS	2572	.90	34.728	27.85			14956	491	163	308	143	796	
STD	2750	.82	34.723	27.86	30.05	1.056	14982						
OBS	2976	.72	34.715	27.86			15017	499	175	311	145	793	
STD	3000	.71	34.715	27.86	29.85	1.130	15020						
STD	3250	.59	34.714	27.86	28.30	1.203	15058						
OBS	3377	.54	34.714	27.87			15078	504	222	312	150	792	
STD	3500	.51	34.714	27.87	27.76	1.273	15097						
OBS	3679	.47	34.714	27.87			15127	516	218	310	155	792	
STD	3750	.45	34.714	27.87	26.38	1.341	15138						
OBS	3980	.41	0.000	0.00			0	510	224	308	157	790	
STD	4000	.41	34.713	27.87	25.90	1.406	15179						
OBS	4282	.39	34.712	27.87			15212	514	216	311	160	789	
OBS	4432	.35	34.712	27.88			15236	510	230	311	166	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 11	254	28JAN1964	552	6600S	8915W	4594	524	69	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			255	5	1.1	0.0	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.70	33.910	27.14			14554						
STD	0	1.70	33.910	27.14	93.35	0.000	14554						
STD	10	1.35	33.898	27.16	91.94	.009	14540						
STD	20	1.08	33.891	27.17	90.71	.018	14530						
OBS	24	.99	33.890	27.18			14526	788	166	230	21	816	
STD	30	.95	33.890	27.18	89.97	.027	14526						
OBS	45	.74	33.900	27.20			14519	803	176	236	28	814	
STD	50	.43	33.907	27.22	85.67	.045	14506						
OBS	69	-.75	33.940	27.31			14455	807	197	270	35	817	
STD	75	-.89	33.948	27.32	76.68	.065	14449						
OBS	93	-1.05	33.970	27.34			14445	787	201	274	38	811	
STD	100	-1.09	33.979	27.35	73.19	.084	14444						
OBS	139	-.90	34.050	27.40			14461	754	213	292	51	810	
STD	150	-.63	34.087	27.42	66.47	.119	14475						
OBS	185	.33	34.210	27.47			14527	642	221	309	58	804	
STD	200	.58	34.246	27.49	60.66	.151	14542						
STD	250	1.20	34.341	27.52	57.55	.180	14579						
OBS	279	1.39	34.380	27.54			14592	520	226	320	67	798	
STD	300	1.53	34.411	27.56	54.91	.208	14602						
OBS	372	1.85	34.500	27.60			14629	455	232	328	76	793	
STD	400	1.91	34.523	27.62	50.11	.261	14637						
STD	500	2.02	34.585	27.66	46.17	.309	14659						
OBS	566	2.00	34.610	27.68			14669	430	223	317	89	790	
STD	600	2.00	34.625	27.69	44.00	.354	14675						
STD	700	1.98	34.662	27.72	41.20	.397	14691						
OBS	762	1.96	34.680	27.74			14700	421	222	298	92	794	
STD	800	1.96	34.688	27.75	39.30	.437	14707						
STD	900	1.94	34.704	27.76	38.35	.476	14722						
OBS	961	1.92	34.710	27.77			14732	432	224	296	100	795	
STD	1000	1.90	34.714	27.77	37.72	.514	14737						
OBS	1211	1.75	34.730	27.80			14766	445	223	290	104	797	
STD	1250	1.72	34.731	27.80	35.21	.605	14771						
OBS	1482	1.57	34.730	27.81			14803	456	240	301	116	797	
STD	1500	1.56	34.730	27.81	34.70	.692	14805						
OBS	1729	1.39	34.730	27.82			14836	461	222	308	115	796	
STD	1750	1.38	34.729	27.82	33.28	.777	14839						
STD	2000	1.23	34.721	27.83	33.50	.861	14874						
OBS	2024	1.22	34.720	27.83			14878	469	222	309	115	796	
STD	2250	1.10	34.720	27.84	32.45	.943	14910						
OBS	2321	1.06	34.720	27.84			14920	472	223	309	125	795	
STD	2500	.97	34.714	27.84	32.62	1.025	14947						
OBS	2617	.92	34.710	27.84			14964	480	219	307	139	796	
STD	2750	.86	34.709	27.84	31.46	1.105	14984						
STD	3000	.74	34.710	27.85	30.58	1.182	15021						
OBS	3015	.73	34.710	27.85			15024	485	217	308	144	801	
STD	3250	.62	34.710	27.86	29.00	1.257	15059						
OBS	3413	.56	34.710	27.86			15085	495	211	310	149	797	
STD	3500	.53	34.710	27.86	28.36	1.328	15098						
STD	3750	.47	34.710	27.87	26.87	1.398	15138						
OBS	3807	.46	34.710	27.87			15148	502	217	318	155	793	
STD	4000	.43	34.705	27.86	26.79	1.465	15180						
OBS	4198	.41	34.700	27.86			15214	503	215	317	152	792	
OBS	4491	.38	34.700	27.86			15264	504	206	315	154	791	
STD	4500	.38	34.700	27.86	26.73	1.598	15265						
OBS	4635	.35	34.700	27.87			15289						790

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	255	29JAN1964	1432	6457S	8700W	4623	524	47	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		345	4	2.5	2.4	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	.95	33.930	27.21			14521						
STD	0	.95	33.930	27.21	87.01	0.000	14521						
STD	10	1.33	33.924	27.18	89.82	.009	14540						
STD	20	1.56	33.919	27.16	91.67	.018	14552						
OBS	25	1.62	33.918	27.16			14555	782	178	192	12	798	
STD	30	1.58	33.918	27.16	91.97	.027	14554						
OBS	46	1.47	33.917	27.17			14552	786	185	213	16	810	
STD	50	1.25	33.928	27.19	88.95	.045	14543						
OBS	69	.26	33.995	27.30			14502	792	232	243	17	811	
STD	75	.24	34.012	27.32	76.83	.066	14502						
OBS	95	.47	34.059	27.34			14517	767	219	258	11	810	
STD	100	.49	34.065	27.35	73.89	.085	14518						
OBS	142	.60	34.095	27.36			14531	706	214	277	26	807	
STD	150	.64	34.103	27.37	71.82	.121	14534						
OBS	191	.85	34.148	27.39			14551	694	226	301	30	803	
STD	200	.91	34.160	27.40	69.20	.156	14555						
STD	250	1.25	34.231	27.43	66.24	.190	14579						
OBS	290	1.50	34.289	27.46			14598	578	237	298	32	799	
STD	300	1.54	34.302	27.47	63.23	.223	14601						
OBS	385	1.79	34.399	27.53			14628	503	253	310	37	792	
STD	400	1.83	34.414	27.54	57.64	.283	14632						
STD	500	2.06	34.503	27.59	52.71	.338	14660						
OBS	587	2.19	34.563	27.63			14680	418	243	312	53	793	
STD	600	2.19	34.570	27.63	49.82	.390	14682						
STD	700	2.17	34.617	27.67	46.33	.438	14699						
OBS	792	2.16	34.648	27.70			14714	415	230	316	63	791	
STD	800	2.16	34.650	27.70	44.00	.483	14715						
STD	900	2.11	34.677	27.73	42.04	.526	14729						
OBS	1000	2.05	34.696	27.75			14744	427	220	296	83	792	
STD	1000	2.05	34.696	27.75	40.60	.567	14744						
OBS	1206	1.93	34.737	27.79			14773	439	224	311	89	795	2
STD	1250	1.91	34.726	27.78	37.44	.665	14779						
OBS	1264	1.90	34.727	27.78			14781	434	222	297	92	793	
OBS	1483	1.73	34.739	27.81			14810	451	224	298	103	795	
STD	1500	1.72	34.739	27.81	35.73	.756	14812						
STD	1750	1.51	34.738	27.82	34.13	.843	14845						
OBS	1767	1.50	34.738	27.82			14847	461	218	296	110	793	
STD	2000	1.34	34.735	27.83	33.71	.928	14879						
OBS	2150	1.25	34.732	27.83			14900	470	219	307	109	795	
STD	2250	1.20	34.730	27.84	32.92	1.012	14914						
STD	2500	1.07	34.724	27.84	33.04	1.094	14951						
OBS	2531	1.05	34.723	27.84			14956	477	230	306	118	793	
STD	2750	.93	34.721	27.85	31.60	1.175	14987						
OBS	2921	.84	34.719	27.85			15013	483	232	301	136	792	
STD	3000	.80	34.718	27.85	30.84	1.253	15024						
STD	3250	.68	34.714	27.86	29.46	1.328	15061						
OBS	3313	.65	34.713	27.86			15071	491	228	307	131	791	
STD	3500	.57	34.712	27.86	28.72	1.401	15099						
OBS	3708	.49	34.712	27.87			15133	503	226	307	141	792	
STD	3750	.48	34.712	27.87	26.87	1.470	15139						
STD	4000	.42	34.711	27.87	26.24	1.537	15180						
OBS	4103	.41	34.711	27.87			15198	507	225	318	151	787	
OBS	4402	.39	34.712	27.87			15249	512	228	315	154	787	
STD	4500	.38	34.710	27.87	26.00	1.667	15265						
OBS	4552	.37	34.709	27.87			15275	503	226	291	161	786	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	256	30 JAN 1964	1324	6338S	8700W	4757	524	37	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			340	1	3.6	3.2	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
ORS	0	2.60	33.929	27.09			14594						
STD	0	2.60	33.929	27.09	98.64	0.000	14594						
STD	10	2.52	33.928	27.09	98.10	.010	14592						
STD	20	2.44	33.928	27.10	97.44	.020	14590						
OBS	24	2.40	33.928	27.10			14589	701	167	186	12	809	
STD	30	2.39	33.929	27.10	97.09	.029	14590						
OBS	47	2.18	33.931	27.12			14584	762	171	187	12	813	
STD	50	2.00	33.934	27.14	93.74	.048	14576						
OBS	72	.76	33.980	27.26			14525	762	199	190	24	812	
STD	75	.73	33.994	27.28	81.01	.070	14525						
OBS	96	.85	34.088	27.34			14534	759	214	200	30	809	
STD	100	.85	34.095	27.35	73.79	.090	14535						
OBS	144	.79	34.101	27.36			14540	742	213	260	33	809	
STD	150	.76	34.099	27.36	72.81	.126	14539						
OBS	192	.58	34.096	27.37			14538	734	210	265	29	809	
STD	200	.64	34.106	27.37	71.55	.162	14542						
STD	250	1.04	34.180	27.41	68.63	.197	14569						
OBS	290	1.42	34.249	27.44			14594	588	225	253	44	800	
STD	300	1.42	34.255	27.44	65.83	.231	14595						
OBS	387	1.24	34.291	27.48			14602	582	268	273	55	798	
STD	400	1.28	34.303	27.49	61.64	.295	14606						
STD	500	1.66	34.404	27.54	56.74	.354	14641						
OBS	586	2.07	34.496	27.58			14674	445	249	282	80	796	
STD	600	2.09	34.506	27.59	53.74	.409	14677						
STD	700	2.16	34.565	27.63	50.16	.461	14697						
OBS	783	2.14	34.600	27.66			14711	413	237	298	86	791	
STD	800	2.14	34.607	27.67	47.09	.510	14713						
STD	900	2.13	34.642	27.70	44.76	.556	14730						
OBS	982	2.10	34.665	27.72			14742	418	222	308	95	793	
STD	1000	2.09	34.669	27.72	43.02	.600	14745						
OBS	1232	2.00	34.711	27.76			14780	433	218	315	97	792	
STD	1250	1.99	34.713	27.76	39.26	.702	14782						
OBS	1492	1.85	34.734	27.79			14817	444	233	328	106	793	
STD	1500	1.84	34.734	27.79	37.48	.798	14818						
OBS	1736	1.66	34.739	27.81			14849	453	219	310	107	794	
STD	1750	1.65	34.739	27.81	35.60	.890	14851						
STD	2000	1.45	34.736	27.82	34.96	.978	14884						
OBS	2033	1.43	34.735	27.82			14888	458	215	309	117	793	
STD	2250	1.30	34.731	27.83	34.07	1.064	14919						
OBS	2330	1.26	34.730	27.83			14931	463	217	315	122	793	
STD	2500	1.17	34.728	27.84	34.09	1.149	14955						
OBS	2729	1.06	34.724	27.84			14990	476	220	308	133	792	
STD	2750	1.05	34.724	27.84	32.90	1.233	14992						
STD	3000	.92	34.718	27.84	32.45	1.315	15029						
OBS	3129	0.00	34.715	0.00			0	488	216	313	139	791	
STD	3250	.80	34.713	27.85	31.17	1.394	15067						
STD	3500	.68	34.711	27.85	30.45	1.471	15104						
OBS	3533	.67	34.711	27.86			15077	492	222	310	147	790	
STD	3750	.58	34.712	27.86	28.31	1.545	15143						
OBS	3934	.51	34.712	27.87			15139	502	221	308	152	791	
STD	4000	.50	34.712	27.87	27.30	1.614	15183						
OBS	4337	.45	34.708	27.87			15207	515	222	304	160	790	
STD	4500	.43	34.706	27.87	27.08	1.750	15267						
OBS	4638	.41	34.705	27.87			15258	513	223	305	163	790	
OBS	4789	.40	34.706	27.87			15284	513	209	314	172	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	257	31 JAN 1964	1136	6300S	8700W	4790	524	37	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		285	5	3.5	1.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.75	34.088	27.00			14688						
STD	0	4.75	34.088	27.00	106.71	0.000	14688						
STD	10	4.69	34.084	27.01	106.49	.011	14687						
STD	20	4.63	34.079	27.01	106.30	.021	14686						
OBS	24	4.61	34.077	27.01			14686	595	149	167	4	810	4
STD	30	4.57	34.072	27.01	106.29	.032	14685						
OBS	47	4.47	34.064	27.01			14683	720	171	166	6	814	
STD	50	4.24	34.066	27.04	103.45	.053	14674						
OBS	71	2.64	34.094	27.22			14610	692	240	198	13	807	
STD	75	2.54	34.100	27.23	85.70	.077	14606						
OBS	94	2.38	34.125	27.26			14602	691	237	193	20	806	
STD	100	2.31	34.128	27.27	81.55	.097	14600						
OBS	139	1.88	34.126	27.30			14588	718	234	216	32	806	
STD	150	1.80	34.125	27.31	78.04	.137	14586						
OBS	184	1.65	34.124	27.32			14585	720	231	244	36	808	
STD	200	1.63	34.132	27.33	76.38	.176	14587						
STD	250	1.66	34.166	27.35	74.17	.214	14597						
OBS	272	1.71	34.186	27.36			14603	649	246	282	42	807	
STD	300	1.76	34.209	27.38	71.93	.250	14610						
OBS	361	1.90	34.262	27.41			14627	572	243	287	49	798	
STD	400	1.98	34.296	27.43	67.76	.320	14637						
STD	500	2.16	34.380	27.48	62.83	.385	14662						
OBS	550	2.23	34.419	27.51			14674	475	303	308	69	792	
STD	600	2.26	34.453	27.53	59.24	.446	14684						
STD	700	2.27	34.512	27.58	55.11	.503	14701						
OBS	741	2.26	34.533	27.60			14708	424	263	313	85	791	
STD	800	2.26	34.562	27.62	51.60	.557	14718						
STD	900	2.24	34.604	27.66	48.76	.607	14734						
OBS	936	2.23	34.617	27.67			14740	406	302	319	89	787	
STD	1000	2.21	34.639	27.69	46.38	.655	14749						
OBS	1182	2.12	34.686	27.73			14776	414	278	303	93	789	
STD	1250	2.09	34.696	27.74	41.60	.765	14786						
OBS	1343	2.05	34.706	27.75			14800	429	260	310	90	790	
STD	1500	1.96	34.720	27.77	39.79	.866	14822						
OBS	1576	1.91	34.726	27.78			14833	436	250	313	98	792	
STD	1750	1.77	34.737	27.80	37.08	.962	14856						
OBS	1810	1.72	34.740	27.81			14864	446	246	294	102	793	
STD	2000	1.58	34.738	27.82	36.29	1.054	14889						
OBS	2102	1.51	34.734	27.82			14904	453	248	287	107	793	
STD	2250	1.43	34.732	27.82	35.56	1.144	14925						
OBS	2495	1.30	34.728	27.83			14960	466	249	290	116	793	
STD	2500	1.30	34.728	27.83	35.62	1.233	14961						
STD	2750	1.14	34.723	27.83	34.13	1.320	14996						
OBS	2983	1.00	34.719	27.84			15030	477	242	282	127	791	
STD	3000	.99	34.719	27.84	33.29	1.404	15032						
STD	3250	.85	34.714	27.85	31.79	1.486	15069						
OBS	3480	.73	34.710	27.85			15104	487	270	293	135	790	
STD	3500	.72	34.710	27.85	31.04	1.564	15106						
STD	3750	.61	34.709	27.86	29.01	1.639	15145						
OBS	3969	.54	34.710	27.86			15180	498	251	300	142	790	
STD	4000	.53	34.710	27.86	27.91	1.710	15184						
OBS	4376	.46	34.710	27.87			15248	505	250	299	143	790	
STD	4500	.46	34.706	27.86	27.60	1.849	15268						
OBS	4680	.45	34.700	27.86			15301	505	240	294	149	789	
OBS	4827	.42	34.700	27.86			15325	501	245	295	151	788	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 11	258	1 FEB 1964	1906	6159S	8715W	4852	524	17	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			315	5	5.2	2.5		5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	4.65	34.060	26.99			14000						
STD	0	4.65	34.060	26.99	107.76	0.000	14683						
STD	10	4.60	34.045	26.99	108.38	.011	14682						
STD	20	4.48	34.032	26.99	108.22	.022	14679						
OBS	22	4.45	34.030	26.99			14678	132	163	206	5	811	
STD	30	4.33	34.020	27.00	107.65	.032	14674						
OBS	41	4.02	34.010	27.02			14663	736	161	213	7	817	
STD	50	3.51	34.009	27.07	100.65	.053	14643						
OBS	62	2.69	34.010	27.14			14609	155	202	220	8	813	
STD	75	1.74	34.002	27.21	86.97	.077	14570						
OBS	85	1.14	34.000	27.25			14544	780	205	238	19	813	
STD	100	1.07	34.033	27.29	79.83	.098	14544						
OBS	126	1.59	34.110	27.31			14573	719	216	275	26	809	
STD	150	1.84	34.158	27.33	75.85	.130	14500						
OBS	174	2.01	34.190	27.34			14600	635	233	279	36	803	
STD	200	1.81	34.184	27.35	73.80	.174	14595						
STD	250	1.36	34.160	27.37	72.38	.210	14585						
OBS	265	1.20	34.150	27.37			14570	695	210	210	34	807	
STD	300	1.39	34.185	27.39	70.87	.246	14593						
OBS	355	1.85	34.260	27.41			14623	579	222	287	41	801	
STD	400	1.99	34.303	27.44	67.39	.315	14638						
STD	500	2.15	34.383	27.49	62.49	.300	14602						
OBS	540	2.15	34.410	27.51			14669	476	24	316	60	797	
STD	600	2.21	34.453	27.54	58.79	.441	14682						
STD	700	2.27	34.517	27.58	54.77	.490	14702						
OBS	723	2.28	34.530	27.59			14706	425	246	316	73	792	
STD	800	2.26	34.566	27.62	51.31	.551	14718						
STD	900	2.22	34.605	27.66	48.45	.601	14733						
OBS	915	2.21	34.610	27.66			14705	415	241	302	80	793	
STD	1000	2.18	34.637	27.69	46.35	.648	14749						
OBS	1180	2.12	34.680	27.73			14776	421	213	297	85	792	
STD	1250	2.08	34.692	27.74	41.76	.708	14780						
OBS	1487	1.93	34.720	27.77			14819	435	221	292	88	795	
STD	1500	1.92	34.721	27.78	39.32	.860	14821						
OBS	1737	1.75	34.730	27.80			14853	444	213	292	96	795	
STD	1750	1.74	34.730	27.80	37.29	.955	14854						
OBS	1986	1.57	34.730	27.81			14887	455	202	295	103	796	
STD	2000	1.56	34.730	27.81	36.61	1.048	14888						
STD	2250	1.38	34.730	27.82	35.07	1.137	14922						
OBS	2333	1.32	34.730	27.83			14934	460	211	295	107	796	
STD	2500	1.23	34.731	27.83	34.62	1.224	14958						
OBS	2732	1.12	34.730	27.84			14993	473	219	295	110	794	
STD	2750	1.11	34.730	27.84	33.22	1.309	14995						
STD	3000	.96	34.724	27.85	32.50	1.391	15031						
OBS	3131	.88	34.720	27.85			15050	483	201	282	117	787	
STD	3250	.81	34.714	27.85	31.23	1.471	15067						
STD	3500	.67	34.704	27.85	30.80	1.549	15104						
OBS	3630	.61	34.700	27.85			15124	499	219	301	123	792	
STD	3750	.56	34.703	27.86	28.68	1.623	15142						
STD	4000	.48	34.709	27.87	27.18	1.693	15182						
OBS	4031	.47	34.710	27.87			15188	504	223	303	120	790	
OBS	4432	.44	34.700	27.86			15256	510	198	301	131	791	
STD	4500	.45	34.703	27.86	27.58	1.830	15268						
OBS	4733	.46	34.710	27.87			15311	497	224	298	137	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 11	259	11FEB1964	1040	5515S	6458W	2088	486	54	16				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		325	06	8.0	4.0		4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	8.20	0.000	0.00			0						
STD	0	8.20	0.000	0.00	0.00	0.000	0						
STD	10	8.15	0.000	0.00	0.00	0.000	0						
STD	20	8.16	0.000	0.00	0.00	0.000	0						
OBS	24	8.07	0.000	0.00			0	679	154	175	8	811	
STD	30	7.80	0.000	0.00	0.00	0.000	0						
OBS	48	6.95	0.000	0.00			0	693	168	210	11	812	
STD	50	6.92	0.000	0.00	0.00	0.000	0						
OBS	71	6.62	0.000	0.00			0	687	170	217	8	813	
STD	75	6.48	0.000	0.00	0.00	0.000	0						
OBS	93	5.82	0.000	0.00			0	681	172	217	12	813	
STD	100	5.62	0.000	0.00	0.00	0.000	0						
OBS	138	4.88	0.000	0.00			0	667	201	256	10	811	
STD	150	4.82	0.000	0.00	0.00	0.000	0						
OBS	183	4.79	0.000	0.00			0	677	200	255	13	811	
STD	200	4.75	0.000	0.00	0.00	0.000	0						
STD	250	4.62	0.000	0.00	0.00	0.000	0						
OBS	275	4.56	0.000	0.00			0	664	201	266	12	811	
STD	300	4.51	0.000	0.00	0.00	0.000	0						
OBS	367	4.39	0.000	0.00			0	684	202	277	10	810	
STD	400	4.30	0.000	0.00	0.00	0.000	0						
STD	500	4.00	0.000	0.00	0.00	0.000	0						
OBS	549	3.83	0.000	0.00			0	668	215	299	14	808	
STD	600	3.64	0.000	0.00	0.00	0.000	0						
STD	700	3.30	0.000	0.00	0.00	0.000	0						
OBS	735	3.19	0.000	0.00			0	616	234	326	26	804	
STD	800	3.07	0.000	0.00	0.00	0.000	0						
STD	900	2.93	0.000	0.00	0.00	0.000	0						
OBS	925	2.91	0.000	0.00			0	577	267	351	34	802	
STD	1000	2.85	0.000	0.00	0.00	0.000	0						
OBS	1174	2.75	0.000	0.00			0	512	262	380	42	795	
STD	1250	2.73	0.000	0.00	0.00	0.000	0						
OBS	1426	2.67	0.000	0.00			0	430	249	381	58	792	
STD	1500	2.62	0.000	0.00	0.00	0.000	0						
OBS	1678	2.48	0.000	0.00			0	406	246	386	74	792	
STD	1750	2.43	0.000	0.00	0.00	0.000	0						
OBS	1931	2.32	0.000	0.00			0	400	256	387	83	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	260	15MAR1964	2351	6303S	5208W	1125	521	32	13				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			30	5	-1.4	-3.7	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.40	34.186	27.49			14463						
STD	0	-.40	34.186	27.49	60.59	0.000	14463						
STD	10	-.48	34.187	27.49	60.13	.006	14461						
STD	20	-.53	34.190	27.50	59.61	.012	14461						
OBS	21	-.53	34.191	27.50			14461	787	190	221	75	810	
STD	30	-.50	34.199	27.50	59.01	.018	14464						
OBS	45	-.48	34.212	27.51			14467	757	192	213	77	807	
STD	50	-.53	34.240	27.54	55.64	.029	14466						
OBS	67	-.74	34.348	27.63			14461	688	211	243	79	806	
STD	75	-.79	34.385	27.67	43.68	.042	14460						
OBS	91	-.82	34.444	27.72			14462	627	236	277	87	805	
STD	100	-.80	34.470	27.74	36.76	.052	14465						
OBS	137	-.63	34.541	27.79			14480	576	234	299	94	803	
STD	150	-.58	34.555	27.80	31.03	.069	14484						
OBS	184	-.46	34.578	27.81			14496	558	233	302	96	802	
STD	200	-.38	34.590	27.81	29.18	.084	14502						
STD	250	-.16	34.622	27.83	27.86	.098	14521						
OBS	279	-.04	34.637	27.84			14531	510	233	313	102	797	
STD	300	.02	34.645	27.84	27.10	.112	14538						
OBS	375	.15	34.665	27.85			14556	510	237	320	105	798	
STD	400	.18	34.669	27.85	26.48	.139	14562						
STD	500	.23	34.678	27.85	25.51	.165	14580						
OBS	570	.20	34.678	27.86			14590	494	237	321	115	795	
STD	600	.16	34.677	27.86	25.61	.190	14593						
STD	700	-.01	34.673	27.86	24.41	.215	14602						
OBS	766	-.15	34.669	27.87			14606	528	233	303	113	796	
STD	800	-.20	34.667	27.87	23.31	.239	14609						
STD	900	-.34	34.663	27.87	22.50	.262	14619						
OBS	963	-.42	34.661	27.87			14626	545	228	304	108	797	
STD	1000	-.47	34.659	27.87	21.88	.284	14630						
OBS	1211	-.59	34.655	27.88			14659	574	231	308	106	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	261	16MAR1964	1251	6359S	5216W	1913	521	32	18				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			5	6	1.2	1.2	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.53	34.039	27.38			14455						
STD	0	-.53	34.039	27.38	71.29	0.000	14455						
STD	10	-.67	34.025	27.37	71.77	.007	14450						
OBS	17	-.70	34.027	27.37			14450	774	180	225	81	809	
STD	20	-.65	34.026	27.37	71.66	.014	14453						
STD	30	-.54	34.050	27.39	70.23	.021	14460						
OBS	36	-.52	34.083	27.41			14462	787	188	227	77	811	
STD	50	-1.11	34.274	27.59	50.82	.034	14440						
OBS	54	-1.30	34.331	27.64			14432	479	202	271	83	808	4
OBS	74	-1.51	34.431	27.73			14427	700	205	290	88	803	
STD	75	-1.52	34.434	27.73	37.36	.045	14427						
STD	100	-1.56	34.488	27.78	32.71	.053	14430						
OBS	113	-1.52	34.499	27.78			14434	504	218	308	86	801	4
STD	150	-1.30	34.532	27.80	29.85	.069	14450						
OBS	153	-1.28	34.534	27.81			14452	603	223	306	82	802	
STD	200	-.80	34.574	27.82	28.45	.084	14483						
OBS	235	-.44	34.600	27.83			14505	551	222	317	89	801	
STD	250	-.34	34.609	27.83	27.91	.098	14513						
STD	300	-.07	34.634	27.83	27.51	.111	14534						
OBS	322	.02	34.642	27.84			14541	497	221	323	99	798	
STD	400	.21	34.661	27.84	27.28	.139	14563						
OBS	500	.31	34.672	27.85			14584	488	232	332	106	797	
STD	500	.31	34.672	27.85	26.49	.166	14584						
STD	600	.32	34.679	27.85	26.65	.192	14601						
OBS	680	0.00	34.681	0.00			0	735	232	335	110	795	4
STD	700	.34	34.682	27.85	26.18	.219	14618						
STD	800	.35	34.686	27.85	25.86	.245	14635						
OBS	863	.36	34.686	27.85			14602	487	230	333	115	793	
STD	900	.35	34.683	27.85	26.09	.271	14651						
OBS	923	0.00	34.681	0.00			0	488	228	330	119	794	
STD	1000	.30	34.682	27.85	25.95	.297	14666						
OBS	1093	.25	34.685	27.86			14578	488	235	335	122	794	
OBS	1165	.21	34.681	27.86			14588	494	225	332	121	796	
STD	1250	.15	34.678	27.86	24.45	.360	14700						
OBS	1408	-.04	34.672	27.86			14616	525	221	322	123	798	
STD	1500	-.23	34.662	27.87	22.60	.419	14724						
OBS	1652	-.60	34.648	27.87			14631	494	219	316	112	800	
STD	1750	-.85	34.645	27.88	17.82	.469	14737						
OBS	1897	-1.24	34.649	27.90			14642	643	218	314	91	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	262	17MAR1964	1245	6455S	5210W	2939	521	42	20				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			320	2	-1.5	-3.7	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	-1.74	33.693	27.14			14394	833					
STD	0	-1.74	33.693	27.14	94.02	0.000	14394						
STD	10	-1.78	33.691	27.14	93.98	.009	14393						
STD	20	-1.79	33.689	27.13	94.03	.019	14394						
OBS	24	-1.80	33.688	27.13			14395	833	178	229	69	813	
STD	30	-1.77	33.838	27.26	82.52	.028	14399						
OBS	50	-1.69	34.356	27.67			14414	867	185	302	81	803	
STD	50	-1.69	34.356	27.67	42.78	.040	14414						
OBS	74	-1.75	34.438	27.74			14416	557	195	318	87	801	4
STD	75	-1.75	34.441	27.74	36.18	.050	14416						
OBS	100	-1.81	34.490	27.78			14418	655	199	321	87	802	
STD	100	-1.81	34.490	27.78	31.81	.059	14418						
OBS	150	-1.57	34.515	27.80			14438	669	200	348	89	802	
STD	150	-1.57	34.515	27.80	30.26	.074	14438						
OBS	200	-.69	34.580	27.82			14488	581	203	334	93	801	
STD	200	-.69	34.580	27.82	28.48	.089	14488						
STD	250	-.19	34.619	27.83	27.89	.103	14519						
OBS	300	.07	34.642	27.83			14540	465	207	328	104	797	
STD	300	.07	34.642	27.83	27.64	.117	14540						
OBS	400	.27	34.663	27.84			14566	500	209	321	110	794	
STD	400	.27	34.663	27.84	27.50	.144	14566						
STD	500	.33	34.671	27.84	26.74	.171	14585						
OBS	600	.34	34.673	27.84			14602	455	212	346	111	796	
STD	600	.34	34.673	27.84	27.19	.198	14602						
STD	700	.37	34.678	27.85	26.76	.225	14619						
OBS	800	.38	34.681	27.85			14636	505	215	338	117	797	
STD	800	.38	34.681	27.85	26.47	.252	14636						
STD	900	.35	34.681	27.85	26.25	.278	14651						
OBS	1000	.31	34.680	27.85			14666	519	215	338	122	796	
STD	1000	.31	34.680	27.85	26.18	.305	14666						
OBS	1250	.20	34.669	27.85			14702	504	224	344	125	795	
STD	1250	.20	34.669	27.85	25.56	.369	14702						
OBS	1427	.12	34.674	27.86			14728	512	220	356	125	795	
STD	1500	.09	34.672	27.86	24.61	.432	14738						
OBS	1676	0.00	34.666	27.86			14764	500	214	338	122	794	9
STD	1750	-.04	34.666	27.86	23.52	.492	14774						
OBS	1925	-.13	34.665	27.86			14800	520	223	332	124	795	
STD	2000	-.16	34.663	27.86	22.95	.550	14811						
OBS	2174	-.22	34.658	27.86			14837	567	220	340	126	796	
STD	2250	-.24	34.657	27.86	22.26	.607	14849						
OBS	2423	-.33	34.655	27.86			14875	586	218	335	119	795	
STD	2500	-.43	34.654	27.87	20.85	.661	14883						
OBS	2672	-.72	34.654	27.88			14899	553	211	324	99	795	
STD	2750	-.87	34.656	27.89	15.01	.705	14905						
OBS	2921	-1.24	34.664	27.91			14918	669	203	318	86	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 12	263	18MAR1964	1340	6558S	5010W	3440	521	50	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		005	05	- .3	-2.4		4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	± ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	-1.76	33.479	26.96			14390						
STD	0	-1.76	33.479	26.96	110.42	0.000	14390						
STD	10	-1.81	33.474	26.96	110.61	.011	14389						
STD	20	-1.82	33.469	26.96	110.90	.022	14390						
OBS	21	-1.82	33.468	26.96			14390	825	142	189	71	811	
STD	30	-1.77	33.595	27.06	101.17	.033	14396						
OBS	43	-1.68	33.866	27.28			14406	789	186	225	77	813	
STD	50	-1.67	34.065	27.44	65.19	.049	14410						
OBS	65	-1.68	34.432	27.73			14418	672	206	299	86	803	
STD	75	-1.68	34.488	27.78	32.78	.062	14420						
OBS	88	-1.65	34.480	27.77			14423	655	208	324	89	802	
STD	100	-1.58	34.497	27.78	31.92	.070	14429						
OBS	137	-1.16	34.544	27.81			14455	604	193	329	89	801	
STD	150	-.90	34.568	27.82	28.67	.085	14470						
OBS	178	-.34	34.616	27.83			14501	530	197	322	102	799	
STD	200	-.10	34.636	27.84	27.14	.099	14516						
STD	250	.20	34.660	27.84	27.02	.112	14538						
OBS	271	.23	34.661	27.84			14543	513	191	310	107	797	
STD	300	.28	34.666	27.84	27.09	.126	14550						
OBS	364	.29	34.669	27.84			14561	479	195	330	108	797	
STD	400	.31	34.671	27.84	27.14	.153	14568						
STD	500	.35	34.676	27.85	26.45	.180	14586						
OBS	554	.36	34.678	27.85			14595	484	214	333	117	798	
STD	600	.35	34.680	27.85	26.72	.206	14602						
STD	700	.32	34.683	27.85	25.98	.233	14617						
OBS	745	.30	34.684	27.86			14624	494	214	356	119	796	
STD	800	.31	34.685	27.86	25.66	.259	14633						
STD	900	.33	34.686	27.86	25.75	.284	14651						
OBS	938	.34	34.686	27.85			14657	479	217	315	124	797	
STD	1000	.32	34.684	27.85	25.91	.310	14666						
OBS	1179	.21	34.678	27.86			14691	500	222	304	124	796	
STD	1250	.17	34.678	27.86	24.64	.373	14701						
OBS	1481	.06	34.678	27.86			14734	501	208	311	124	797	
STD	1500	.06	34.677	27.86	23.96	.434	14737						
OBS	1714	.01	34.671	27.86			14771	516	202	320	124	796	
STD	1750	0.00	34.671	27.86	23.47	.493	14776						
OBS	1955	-.09	34.671	27.87			14807	530	218	305	126	796	
STD	2000	-.10	34.671	27.87	22.93	.551	14813						
OBS	2195	-.15	34.668	27.87			14844	530	219	304	125	796	
STD	2250	-.16	34.667	27.87	22.32	.608	14853						
OBS	2436	-.18	34.665	27.87			14884	484	214	323	124	795	
STD	2500	-.20	34.664	27.87	22.67	.664	14894						
OBS	2678	-.24	34.661	27.87			14922	553	199	312	119	794	
STD	2750	-.24	34.661	27.87	21.64	.720	14934						
OBS	2920	-.28	34.660	27.87			14962	558	214	309	116	795	
STD	3000	-.34	34.656	27.87	20.97	.773	14972						
OBS	3163	-.54	34.644	27.87			14991	473	232	302	100	795	
STD	3250	-.71	0.000	0.00	0.00	0.000	0						
OBS	3406	-1.12	34.670	27.91			15007						796 2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 12	264	19MAR1964	318	6502S	4701W	4182	520	57	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	4	0.0	-1.9	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.75	33.432	26.93			14390	858					
STD	0	-1.75	33.432	26.93	114.06	0.000	14390						
STD	10	-1.80	33.425	26.92	114.39	.011	14389						
STD	20	-1.81	33.418	26.92	114.83	.023	14390						
OBS	21	-1.81	33.417	26.91			14390	858	160	209	62	812	
STD	30	-1.75	33.796	27.22	85.77	.033	14399						
OBS	44	-1.65	34.400	27.71			14415	698	206	273	73	804	
STD	50	-1.65	34.458	27.75	35.09	.045	14417						
OBS	66	-1.66	34.448	27.75			14419	605	209	284	73	803	4
STD	75	-1.66	34.457	27.75	35.22	.054	14420						
OBS	90	-1.59	34.469	27.76			14426	651	205	303	74	802	
STD	100	-1.40	34.487	27.77	33.22	.062	14437						
OBS	137	-.48	34.571	27.80			14487	568	217	309	88	799	
STD	150	-.16	34.603	27.81	29.39	.078	14504						
OBS	185	.55	34.676	27.83			14544	551	221	326	101	794	
STD	200	.63	34.686	27.84	27.62	.092	14550						
STD	250	.66	34.693	27.84	27.35	.106	14559						
OBS	282	.49	34.678	27.84			14557	506	217	307	100	798	
STD	300	.49	34.678	27.84	27.46	.120	14560						
OBS	382	.51	34.680	27.84			14574	479	213	322	102	798	
STD	400	.52	34.681	27.84	27.75	.147	14577						
STD	500	.55	34.687	27.84	26.99	.175	14595						
OBS	582	.56	34.692	27.85			14609	512	218	323	109	796	
STD	600	.55	34.693	27.85	27.20	.202	14611						
STD	700	.50	34.696	27.85	26.34	.229	14625						
OBS	785	.44	34.697	27.86			14637	511	225	326	113	796	
STD	800	.43	34.697	27.86	25.69	.255	14639						
STD	900	.38	34.693	27.86	25.57	.280	14653						
OBS	990	.33	34.689	27.86			14665	477	234	313	115	796	
STD	1000	.33	34.689	27.86	25.64	.306	14667						
OBS	1249	.21	34.686	27.86			14703	489	221	321	116	797	
STD	1250	.21	34.686	27.86	24.38	.368	14703						
STD	1500	.07	34.684	27.87	23.57	.428	14738						
OBS	1577	.03	34.683	27.87			14749	511	227	315	119	796	
STD	1750	-.01	34.677	27.87	23.01	.486	14776						
OBS	1818	-.02	34.674	27.86			14787	517	219	319	119	797	
STD	2000	-.08	34.671	27.86	23.19	.544	14815						
OBS	2059	0.00	34.670	0.00			0	528	217	314	115	796	
STD	2250	-.15	34.667	27.87	22.46	.601	14854						
OBS	2349	-.17	34.666	27.87			14846	398	226	314	116	795	4
STD	2500	-.18	34.665	27.87	22.75	.658	14894						
OBS	2640	-.19	34.665	27.87			14894	511	228	315	117	795	
STD	2750	-.22	34.666	27.87	21.62	.713	14935						
OBS	2930	-.26	34.667	27.87			14941	494	223	305	115	794	
STD	3000	-.27	34.667	27.87	21.00	.767	14976						
OBS	3222	-.29	34.666	27.87			14989	562	217	302	112	795	
STD	3250	-.29	34.666	27.87	20.20	.818	15017						
STD	3500	-.31	34.663	27.87	20.33	.869	15060						
OBS	3517	-.31	34.663	27.87			15039	537	224	311	112	793	
STD	3750	-.33	34.661	27.87	19.08	.918	15102						
OBS	3813	-.34	34.661	27.87			15089	568	215	313	120	793	
STD	4000	-.36	34.663	27.87	18.33	.965	15144						
OBS	4013	-.36	34.663	27.87			15123	568	209	313	118	796	
OBS	4213	-.58	34.662	27.88			15148	647	209	311	100	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	265	20MAR1964	1530	6430S	4406W	4579	520	44	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			215	4	-6.9	-10.0	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.75	33.357	26.86			14388	902					
STD	0	-1.75	33.357	26.86	119.83	0.000	14388						
STD	10	-1.77	33.352	26.86	120.02	.012	14389						
STD	20	-1.80	33.348	26.86	120.22	.024	14389						
OBS	22	-1.80	33.347	26.86			14389	908	164	205	60	809	
STD	30	-1.71	33.647	27.10	97.31	.035	14399						
OBS	47	-1.56	34.306	27.63			14418	725	203	261	72	805	
STD	50	-1.58	34.340	27.66	44.29	.049	14418						
OBS	70	-1.76	34.387	27.70			14414	696	200	268	75	804	
STD	75	-1.79	34.391	27.70	39.89	.060	14413						
OBS	94	-1.77	34.400	27.71			14417	765	209	271	76	805	
STD	100	-1.64	34.415	27.72	38.01	.069	14425						
OBS	142	-.40	34.553	27.79			14491	559	217	298	88	793	
STD	150	-.20	34.578	27.80	31.13	.087	14502						
OBS	190	.61	34.679	27.83			14547	474	241	320	93	795	
STD	200	.68	34.688	27.84	27.72	.101	14552						
STD	250	.79	34.706	27.84	27.16	.115	14565						
OBS	287	.63	34.691	27.84			14564	445	231	324	112	792	
STD	300	.62	34.692	27.84	27.29	.129	14566						
OBS	384	.55	34.693	27.85			14576	445	239	324	115	791	
STD	400	.54	34.693	27.85	27.01	.156	14578						
STD	500	.50	34.692	27.85	26.27	.182	14593						
OBS	581	.47	34.690	27.85			14605	554	233	327	125	790	
STD	600	.46	34.690	27.85	26.76	.209	14607						
STD	700	.40	34.689	27.85	26.18	.235	14621						
OBS	778	.36	34.688	27.86			14632	462	238	322	124	791	
STD	800	.35	34.688	27.86	25.74	.261	14635						
STD	900	.30	34.686	27.86	25.51	.287	14649						
OBS	976	.27	34.685	27.86			14660	468	232	312	130	790	
STD	1000	.26	34.685	27.86	25.43	.312	14664						
OBS	1224	.16	34.681	27.86			14696	491	227	314	128	792	
STD	1250	.15	34.681	27.86	24.26	.375	14700						
STD	1500	.05	34.677	27.86	23.94	.435	14737						
OBS	1501	.05	34.677	27.86			14737	562	228	311	127	793	
OBS	1748	-.03	34.671	27.86			14775	519	226	306	127	794	
STD	1750	-.03	34.671	27.86	23.22	.494	14775						
OBS	1995	-.11	34.668	27.86			14812	674	226	300	127	796	4
STD	2000	-.11	34.668	27.86	23.04	.552	14813						
STD	2250	-.16	34.669	27.87	22.16	.608	14853						
OBS	2294	-.17	34.669	27.87			14860	537	228	301	124	797	
STD	2500	-.22	34.666	27.87	22.28	.664	14893						
OBS	2593	-.24	34.664	27.87			14908	554	226	301	123	797	
STD	2750	-.27	34.662	27.87	21.27	.718	14933						
OBS	2892	-.29	34.661	27.87			14956	559	225	294	122	796	
STD	3000	-.30	34.660	27.87	21.06	.771	14974						
STD	3250	-.33	34.659	27.87	20.16	.823	15015						
OBS	3291	-.47	34.659	27.87			15017	577	218	291	122	796	1
STD	3500	-.36	34.658	27.87	20.09	.873	15058						
OBS	3691	-.37	34.657	27.87			15090	571	227	303	124	795	
STD	3750	-.37	34.657	27.87	18.87	.922	15100						
OBS	3991	-.39	34.656	27.87			15142	675	219	303	128	794	
STD	4000	-.39	34.656	27.87	18.32	.968	15143						
OBS	4291	-.48	34.652	27.87			15190	586	221	294	118	794	
STD	4500	-.56	34.652	27.87	15.61	1.053	15223						
OBS	4591	-.60	34.653	27.88			15238	582	212	292	110	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	266	21MAR1964	449	6400S	4050W	4746	520	40	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			240	2	-4.8	-9.3	0	2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	-1.68	33.396	26.89			14392	859					
STD	0	-1.68	33.396	26.89	116.98	0.000	14392						
STD	10	-1.68	33.394	26.89	117.04	.012	14394						
STD	20	-1.69	33.392	26.89	117.09	.023	14395						
OBS	23	-1.69	33.391	26.89			14395	847	142	168	52	814	
STD	30	-1.62	33.618	27.07	99.74	.034	14403						
OBS	49	-1.49	34.266	27.59			14422	739	200	248	67	810	
STD	50	-1.50	34.279	27.61	49.23	.049	14421						
OBS	73	-1.79	34.390	27.70			14413	718	192	250	70	808	
STD	75	-1.81	34.392	27.71	39.74	.060	14413						
OBS	98	-1.82	34.404	27.72			14416	710	200	273	71	807	
STD	100	-1.77	34.410	27.72	38.05	.070	14419						
OBS	148	-.27	34.582	27.80			14499	515	219	329	97	799	
STD	150	-.23	34.587	27.81	30.25	.087	14501						
OBS	197	.52	34.680	27.84			14544	429	237	339	117	791	
STD	200	.54	34.682	27.84	27.27	.101	14545						
STD	250	.65	34.703	27.85	26.54	.115	14559						
OBS	296	.52	34.692	27.85			14560	429	233	328	124	790	
STD	300	.52	34.692	27.85	26.60	.128	14561						
OBS	396	.52	34.693	27.85			14577	435	231	354	128	790	
STD	400	.52	34.693	27.85	26.85	.155	14577						
STD	500	.49	34.695	27.85	25.98	.181	14592						
OBS	595	.43	34.695	27.86			14605	441	236	341	132	790	
STD	600	.43	34.695	27.86	26.14	.207	14606						
STD	700	.34	34.692	27.86	25.43	.233	14618						
OBS	795	.26	34.689	27.86			14630	464	233	330	135	793	
STD	800	.26	34.689	27.86	24.98	.258	14631						
STD	900	.26	34.687	27.86	25.10	.283	14647						
OBS	994	.26	34.685	27.86			14663	555	238	316	135	795	
STD	1000	.26	34.685	27.86	25.40	.309	14664						
OBS	1243	.13	34.680	27.86			14698	515	236	274	134	796	
STD	1250	.13	34.680	27.86	24.11	.371	14699						
OBS	1484	.03	34.686	27.87			14734	504	233	277	124	795	
STD	1500	.02	34.685	27.87	23.10	.430	14736						
OBS	1732	-.05	34.673	27.87			14771	515	233	323	124	796	
STD	1750	-.06	34.673	27.87	22.85	.487	14774						
OBS	1984	-.13	34.672	27.87			14810	527	228	322	123	795	
STD	2000	-.13	34.672	27.87	22.53	.544	14812						
STD	2250	-.17	34.672	27.87	21.81	.599	14852						
OBS	2382	-.19	34.671	27.87			14874	538	229	321	122	796	
STD	2500	-.21	34.667	27.87	22.22	.654	14893						
OBS	2582	-.23	34.665	27.87			14906	550	227	324	123	796	
STD	2750	-.26	34.664	27.87	21.21	.708	14933						
OBS	2881	-.28	34.665	27.87			14955	555	225	318	123	796	
STD	3000	-.30	34.665	27.87	20.84	.761	14974						
STD	3250	-.33	34.664	27.87	19.89	.812	15016						
OBS	3284	-.33	34.664	27.87			15022	561	219	321	120	795	
STD	3500	-.36	34.662	27.87	19.76	.861	15057						
OBS	3684	-.38	34.660	27.87			15089	572	224	321	122	794	
STD	3750	-.38	34.659	27.87	18.56	.909	15100						
OBS	3992	-.41	34.655	27.87			15141	584	219	326	123	793	
STD	4000	-.41	34.655	27.87	18.10	.955	15142						
OBS	4290	-.50	34.656	27.87			15189	595	219	331	110	793	
STD	4500	-.62	34.655	27.88	14.49	1.037	15220						
OBS	4590	-.69	34.654	27.88			15234	653	203	320	95	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	267	22MAR1964	1321	6300S	4057W	4164	520	30	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		240	7	-1.7	-3.8	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-0.86	33.808	27.20			14437	816					
STD	0	-0.86	33.808	27.20	87.73	0.000	14437						
STD	10	-0.87	33.795	27.19	88.63	.009	14437						
STD	20	-0.87	33.781	27.18	89.59	.018	14439						
OBS	21	-0.89	33.780	27.18			14438	813	146	200	52	814	
STD	30	-1.29	33.896	27.29	79.40	.026	14423						
OBS	47	-1.99	34.169	27.53			14396	741	200	242	67	809	
STD	50	-1.98	34.208	27.56	53.47	.039	14398						
OBS	72	-1.66	34.420	27.72			14419	674	225	273	76	805	
STD	75	-1.64	34.431	27.73	37.26	.051	14421						
OBS	99	-1.43	34.468	27.76			14435	644	230	285	81	803	
STD	100	-1.40	34.471	27.76	34.46	.060	14437						
STD	150	.07	34.618	27.82	29.43	.076	14515						
OBS	151	.10	34.621	27.82			14517	490	245	314	102	796	
STD	200	.44	34.660	27.83	28.34	.090	14541						
OBS	205	.44	34.661	27.83			14542	462	240	310	103	792	
STD	250	.58	34.675	27.83	28.15	.104	14555						
STD	300	.64	34.678	27.83	28.47	.118	14566						
OBS	314	.64	34.680	27.83			14569	445	240	313	109	793	
STD	400	.62	34.682	27.84	28.34	.147	14582						
OBS	425	.60	34.682	27.84			14585	445	250	312	117	792	
STD	500	.56	34.683	27.84	27.33	.175	14595						
STD	600	.49	34.684	27.84	27.44	.202	14609						
OBS	647	.46	34.684	27.85			14615	450	245	313	126	791	
STD	700	.43	34.684	27.85	26.75	.229	14622						
STD	800	.37	34.683	27.85	26.21	.256	14636						
OBS	874	.33	34.682	27.85			14646	462	252	318	127	791	
STD	900	.32	34.679	27.85	26.18	.282	14650						
STD	1000	.28	34.672	27.85	26.60	.308	14665						
OBS	1100	.25	34.671	27.85			14680	479	227	315	129	793	
OBS	1183	.21	34.686	27.86			14692	484	251	315	131	795	
STD	1250	.17	34.690	27.87	23.76	.371	14701						
OBS	1386	.09	34.683	27.87			14720	496	255	311	129	796	
OBS	1445	.07	34.677	27.86			14729	505	245	308	127	795	
STD	1500	.05	34.675	27.86	24.11	.431	14737						
OBS	1711	-0.02	34.674	27.86			14769	519	239	313	127	794	
STD	1750	-0.04	34.673	27.86	23.04	.490	14775						
OBS	1986	-0.12	34.667	27.86			14810	514	242	310	129	796	
STD	2000	-0.12	34.667	27.86	23.00	.547	14812						
STD	2250	-0.18	34.668	27.87	22.07	.604	14852						
OBS	2265	-0.18	34.668	27.87			14855	530	240	312	125	796	
STD	2500	-0.24	34.665	27.87	22.14	.659	14892						
OBS	2549	-0.25	34.664	27.87			14900	547	236	305	120	796	
STD	2750	-0.29	34.664	27.87	20.86	.713	14932						
OBS	2929	-0.32	34.665	27.87			14961	550	237	296	118	794	
STD	3000	-0.33	34.664	27.87	20.50	.765	14973						
STD	3250	-0.35	34.662	27.87	19.72	.815	15015						
OBS	3314	-0.36	34.661	27.87			15026	559	243	305	119	793	
STD	3500	-0.39	34.660	27.87	19.43	.864	15056						
OBS	3606	-0.42	34.660	27.87			15073	508	241	308	122	795	
STD	3750	-0.47	34.660	27.88	17.29	.910	15096						
OBS	3898	-0.52	34.660	27.88			15120	587	241	305	108	793	
STD	4000	-0.55	34.658	27.88	15.98	.951	15136						
OBS	4192	-0.58	34.653	27.87			15168	599	232	307	100	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 12	268	23MAR1964	2012	6157S	4056W	3502	520	10	17				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		335	5	.4	-1.5	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.52	33.817	27.20			14453	779					
STD	0	-.52	33.817	27.20	88.31	0.000	14453						
STD	10	-.52	33.819	27.20	88.10	.009	14454						
STD	20	-.52	33.820	27.20	87.96	.018	14456						
OBS	21	-.52	33.820	27.20			14456	802	156	207	52	812	
STD	30	-.53	33.820	27.20	87.90	.026	14457						
OBS	45	-.54	33.819	27.20			14459	796	153	203	50	812	
STD	50	-.79	33.943	27.31	77.31	.043	14450						
OBS	67	-1.66	34.379	27.69			14418	704	210	284	78	805	
STD	75	-1.74	34.438	27.74	36.43	.057	14416						
OBS	92	-1.65	34.458	27.75			14424	664	219	299	79	803	
STD	100	-1.56	34.477	27.77	33.50	.066	14430						
OBS	139	-.96	34.547	27.80			14465	606	214	315	89	802	
STD	150	-.81	34.562	27.81	29.49	.082	14474						
OBS	187	-.37	34.601	27.82			14501	578	220	313	92	799	
STD	200	-.25	34.611	27.83	28.19	.096	14508						
STD	250	.13	34.645	27.83	27.68	.110	14535						
OBS	282	.32	34.662	27.84			14549	483	225	331	100	795	
STD	300	.32	34.668	27.84	27.17	.124	14551						
STD	400	.29	34.663	27.84	27.64	.151	14567						
STD	500	.27	34.664	27.84	26.82	.178	14582						
STD	600	.24	34.665	27.84	27.15	.205	14597						
STD	700	.22	34.665	27.85	26.61	.232	14612						
STD	800	.19	34.666	27.85	26.21	.259	14628						
STD	900	.17	34.667	27.85	25.94	.285	14643						
STD	1000	.15	34.668	27.85	25.80	.311	14658						
STD	1250	.08	34.670	27.86	24.54	.374	14697						
STD	1500	.08	34.672	27.86	24.62	.435	14738						
OBS	1517	.02	34.672	27.86			14738	510	221	316	122	796	
STD	1750	-.09	34.666	27.86	22.97	.494	14772						
OBS	1761	-.10	34.666	27.86			14774	527	221	294	120	796	
STD	2000	-.18	34.666	27.87	22.54	.551	14810						
OBS	2008	-.18	34.666	27.87			14811	550	215	313	118	796	
STD	2250	-.25	34.662	27.87	21.75	.607	14849						
OBS	2256	-.25	34.662	27.87			14850	553	219	314	116	796	
STD	2500	-.30	34.662	27.87	21.67	.661	14889						
OBS	2504	-.30	34.662	27.87			14890		226	324	116	796	
STD	2750	-.38	34.659	27.87	20.24	.713	14928						
OBS	2753	-.38	34.659	27.87			14928	558	219	306	114	795	
STD	3000	-.47	34.660	27.88	19.11	.763	14966						
OBS	3001	-.47	34.660	27.88			14967	581	219	305	110	795	
STD	3250	-.59	34.654	27.88	17.34	.808	15004						
OBS	3251	-.59	34.654	27.88			15004	573	208	298	101	796	
OBS	3500	-.67	34.651	27.88			15044	670	206	320	101	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	269	25MAR1964	200	6159S	4117W	3500	520	11	13				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		355	2	0.0	-3.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.54	33.815	27.20			14452	807					
STD	0	-.54	33.815	27.20	88.38	0.000	14452						
STD	10	-.54	33.814	27.20	88.36	.009	14453						
STD	20	-.54	33.814	27.20	88.32	.018	14455						
OBS	22	0.00	33.814	0.00			0	801	162	209	60	812	
STD	30	-.55	33.814	27.20	88.23	.026	14456						
OBS	47	-.55	33.815	27.20			14455	800	160	212	57	812	
STD	50	-.71	33.884	27.26	82.18	.044	14453						
OBS	71	-1.71	34.385	27.70			14413	698	214	280	83	803	
STD	75	-1.76	34.418	27.73	37.89	.059	14415						
OBS	97	-1.65	34.479	27.77			14421	676	217	287	87	802	
STD	100	-1.60	34.486	27.78	32.67	.067	14428						
OBS	147	-.63	34.569	27.81			14478	572	227	318	100	799	
STD	150	-.58	34.574	27.81	29.59	.083	14485						
OBS	196	0.00	34.632	27.83			14516	515	235	313	109	794	9
STD	200	.03	34.635	27.83	27.90	.097	14522						
STD	250	.34	34.668	27.84	27.26	.111	14545						
OBS	295	.46	34.681	27.84			14554	469	228	317	117	792	
STD	300	.47	34.682	27.84	27.03	.125	14559						
OBS	394	.52	34.692	27.85			14573	469	234	322	120	792	
STD	400	.52	34.692	27.85	26.91	.152	14577						
STD	500	.51	34.695	27.85	26.05	.178	14593						
OBS	593	.46	34.695	27.86			14603	492	231	322	125	792	
STD	600	.46	34.695	27.86	26.35	.204	14607						
STD	700	.40	34.694	27.86	25.77	.230	14621						
OBS	791	.35	34.693	27.86			14630	481	233	323	130	792	
STD	800	.34	34.693	27.86	25.31	.256	14635						
STD	900	.29	34.692	27.86	24.97	.281	14649						
OBS	990	.24	34.691	27.86			14658	464	231	317	132	794	
STD	1000	.23	34.691	27.86	24.77	.306	14663						
OBS	1238	.14	34.689	27.87			14694	498	226	320	133	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	270	25MAR1964	2031	6109S	4009W	3903	520	10	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			325	6	1.4	-0.5	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-0.19	33.811	27.18			14468	771					
STD	0	-0.19	33.811	27.18	90.15	0.000	14468						
STD	10	-0.18	33.803	27.17	90.73	.009	14470						
OBS	18	-0.19	33.801	27.17			14470	796	149	209	51	810	
STD	20	-0.20	33.802	27.17	90.70	.018	14470						
STD	30	-0.24	33.807	27.18	90.08	.027	14470						
OBS	39	-0.27	33.812	27.18			14470	796	146	211	52	811	
STD	50	-0.87	34.029	27.38	70.48	.043	14448						
OBS	58	-1.31	34.196	27.53			14430	728	204	254	81	804	
STD	75	-1.52	34.301	27.62	47.53	.058	14425						
OBS	80	-1.51	34.310	27.63			14426	711	207	272	88	803	
STD	100	-1.56	34.380	27.69	40.99	.069	14428						
OBS	121	-1.48	34.433	27.73			14436	671	202	271	90	801	
STD	150	-1.16	34.497	27.77	33.03	.088	14457						
OBS	163	-0.98	34.521	27.78			14468	615	214	282	97	799	
STD	200	-0.61	34.567	27.81	29.82	.103	14491						
OBS	248	-0.24	34.603	27.82			14517	540	219	292	105	795	
STD	250	-0.23	34.604	27.82	28.83	.118	14518						
STD	300	.03	34.633	27.83	28.08	.132	14538						
OBS	336	.16	34.648	27.83			14550	506	224	294	114	795	
STD	400	.32	34.667	27.84	27.51	.160	14568						
STD	500	.43	34.682	27.85	26.51	.187	14589						
OBS	514	.43	34.683	27.85			14592	483	222	304	119	793	
STD	600	.43	34.687	27.85	26.80	.214	14606						
OBS	694	.39	34.686	27.85			14619	472	222	313	124	792	
STD	700	.39	34.686	27.85	26.28	.240	14620						
STD	800	.35	34.686	27.85	25.91	.266	14635						
OBS	876	.32	34.685	27.86			14646	483	230	301	127	792	
STD	900	.31	34.685	27.86	25.67	.292	14649						
STD	1000	.26	34.683	27.86	25.51	.318	14663						
OBS	1104	.20	34.682	27.86			14678	502	217	303	127	794	
STD	1250	.14	34.684	27.86	23.96	.379	14699						
OBS	1274	.13	34.684	27.86			14703	517	217	301	130	795	
STD	1500	.04	34.680	27.87	23.61	.439	14736						
OBS	1557	.02	34.679	27.87			14745	500	212	300	128	794	
STD	1750	-0.05	34.676	27.87	22.65	.497	14774						
OBS	1852	-0.09	34.674	27.87			14789	529	214	296	130	794	
STD	2000	-0.13	34.671	27.87	22.63	.553	14812						
OBS	2141	-0.17	34.668	27.87			14834	540	214	284	127	795	
STD	2250	-0.20	34.666	27.87	21.93	.609	14851						
OBS	2440	-0.27	34.663	27.87			14880	551	232	297	123	796	
STD	2500	-0.30	34.662	27.87	21.72	.664	14889						
OBS	2731	-0.40	34.659	27.87			14924	569	216	298	121	795	
STD	2750	-0.41	34.659	27.87	19.88	.716	14926						
STD	3000	-0.48	34.665	27.88	18.54	.764	14966						
OBS	3022	-0.49	34.666	27.88			14969	585	215	293	118	796	
STD	3250	-0.52	34.665	27.88	17.44	.809	15007						
OBS	3313	-0.52	34.664	27.88			15018	585	208	298	113	795	
STD	3500	-0.53	34.658	27.88	17.81	.853	15050						
OBS	3558	-0.53	34.656	27.87			15060	589	208	301	111	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	271	27MAR1964	137	6019S	3840W	3544	519	8	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			100	2	.1	-1.9	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	-.14	33.802	27.17			14470	798	156	210	47	812	
STD	0	-.14	33.802	27.17	91.07	0.000	14470						
STD	10	-.10	33.803	27.17	91.12	.009	14473						
STD	20	-.08	33.803	27.17	91.15	.018	14476						
OBS	23	-.08	33.804	27.17			14476	815	154	200	45	813	
STD	30	-.09	33.809	27.17	90.62	.027	14477						
OBS	49	-.12	33.822	27.18			14479	803	155	197	49	813	
STD	50	-.15	33.832	27.19	88.51	.045	14478						
OBS	72	-.85	34.090	27.43			14453	741	192	234	69	809	
STD	75	-.94	34.115	27.45	63.75	.064	14449						
OBS	98	-1.47	0.000	0.00			0	712	211	264	83	805	
STD	100	-1.49	34.287	27.61	48.26	.078	14430						
OBS	148	-1.46	34.460	27.75			14440	672	212	283	84	804	
STD	150	-1.43	34.466	27.75	34.47	.099	14443						
OBS	197	-.71	34.564	27.81			14485	593	219	285	94	802	
STD	200	-.67	34.568	27.81	29.49	.115	14488						
STD	250	-.17	34.615	27.82	28.34	.129	14521						
OBS	297	.12	34.632	27.82			14540	501	223	298	103	801	
STD	300	.13	34.633	27.82	28.67	.144	14542						
OBS	397	.25	34.655	27.83			14563	490	225	313	104	798	
STD	400	.25	34.655	27.84	27.96	.172	14565						
STD	500	.36	34.669	27.84	27.03	.199	14586						
OBS	597	.42	34.677	27.84			14603	473	235	310	110	797	
STD	600	.42	34.677	27.84	27.43	.227	14605						
STD	700	.42	34.683	27.85	26.69	.254	14621						
OBS	797	.38	34.686	27.85			14634	469	234	305	116	795	
STD	800	.38	34.686	27.85	26.09	.280	14636						
STD	900	.33	34.685	27.85	25.78	.306	14650						
OBS	996	.28	34.683	27.86			14663	490	234	307	118	795	
STD	1000	.28	34.683	27.86	25.71	.332	14664						
OBS	1246	.18	34.674	27.85			14699	479	234	302	121	797	
STD	1250	.18	34.674	27.85	25.01	.395	14701						
OBS	1436	.07	34.672	27.86			14726	507	233	300	119	797	
STD	1500	.04	34.670	27.86	24.37	.457	14736						
OBS	1688	-.03	34.665	27.86			14763	518	228	296	121	797	
STD	1750	-.05	34.665	27.86	23.45	.517	14774						
OBS	1939	-.12	34.665	27.86			14801	530	233	295	119	797	
STD	2000	-.13	34.665	27.86	23.08	.575	14812						
OBS	2191	-.17	34.663	27.86			14841	540	231	295	117	796	
STD	2250	-.19	34.662	27.86	22.36	.632	14851						
OBS	2442	-.27	34.659	27.87			14879	550	236	295	115	796	
STD	2500	-.30	34.658	27.87	21.94	.687	14889						
OBS	2694	-.40	34.656	27.87			14916	558	227	294	113	795	
STD	2750	-.42	34.656	27.87	19.95	.739	14926						
OBS	2895	-.53	34.657	27.88			14944	575	222	298	110	796	1
STD	3000	-.49	34.655	27.87	19.16	.788	14965						
OBS	3096	-.51	34.654	27.87			14980	575	226	304	105	794	
STD	3250	-.52	34.654	27.87	18.15	.835	15007						
OBS	3297	-.40	34.655	27.87			15019	581	217	296	102	794	1
OBS	3448	-.53	34.658	27.88			15040	583	215	297	103	795	
STD	3500	-.53	34.660	27.88	17.60	.880	15049						
OBS	3549	-.54	34.663	27.88			15057	587	205	303	103	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	272	28MAR1964	2046	6039S	3502W	3656	519	5	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			115	7	-2.5	-2.6	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.57	33.817	27.20			14450	802	151	227	51	811	
STD	0	-.57	33.817	27.20	88.11	0.000	14450						
STD	10	-.58	33.802	27.19	89.14	.009	14451						
OBS	20	-.58	33.793	27.18			14453	793	164	222	52	813	
STD	20	-.58	33.793	27.18	89.78	.018	14453						
STD	30	-.54	33.793	27.18	89.87	.027	14456						
OBS	42	-.52	33.793	27.18			14459	791	161	222	52	812	
STD	50	-.54	33.976	27.33	75.77	.043	14462						
OBS	63	-.66	34.278	27.58			14463	779	168	237	57	812	
STD	75	-.96	34.318	27.62	48.13	.059	14451						
OBS	86	-1.24	34.295	27.61			14440	705	206	281	83	803	
STD	100	-1.29	34.343	27.65	44.67	.070	14440						
OBS	131	-1.09	34.456	27.74			14456	662	215	300	87	802	
STD	150	-1.02	34.479	27.75	34.97	.090	14463						
OBS	176	-.89	34.493	27.76			14473	639	213	299	89	802	
STD	200	-.66	34.516	27.77	33.45	.107	14488						
STD	250	-.16	34.565	27.78	32.20	.124	14520						
OBS	267	.02	34.581	27.79			14531	528	218	307	101	801	
STD	300	.24	34.609	27.80	31.18	.140	14547						
OBS	360	.50	34.648	27.82			14569	512	215	308	100	800	
STD	400	.50	34.656	27.82	29.56	.170	14576						
STD	500	.38	34.660	27.83	27.90	.199	14587						
OBS	549	.26	34.654	27.83			14589	496	215	308	102	799	
STD	600	.28	34.662	27.84	27.64	.227	14599						
STD	700	.35	34.677	27.85	26.71	.254	14619						
OBS	740	.39	34.683	27.85			14627	489	217	318	110	796	
STD	800	.40	34.686	27.85	26.20	.280	14637						
STD	900	.39	34.690	27.86	25.90	.306	14653						
OBS	925	.38	34.690	27.86			14657	489	224	322	116	796	
STD	1000	.35	34.694	27.86	25.43	.332	14668						
OBS	1176	.26	34.699	27.87			14693	489	217	320	119	799	
STD	1250	.23	34.694	27.87	23.96	.394	14704						
OBS	1419	.18	34.683	27.86			14729	500	218	313	120	797	
STD	1500	.15	34.684	27.86	24.35	.454	14742						
OBS	1664	.10	34.687	27.87			14767	517	217	321	122	798	
STD	1750	.06	34.684	27.87	23.18	.513	14779						
OBS	1910	0.00	34.676	27.87			14803	523	220	321	118	798	9
STD	2000	-.01	34.674	27.86	23.54	.572	14817						
OBS	2156	-.04	34.673	27.86			14843	530	223	318	115	797	
STD	2250	-.08	34.672	27.87	22.81	.630	14857						
OBS	2410	-.15	34.671	27.87			14881	537	217	313	114	796	
STD	2500	-.18	34.672	27.87	22.22	.686	14894						
OBS	2657	-.24	34.672	27.87			14918	546	215	319	113	796	
STD	2750	-.27	34.669	27.87	20.68	.740	14932						
OBS	2904	-.31	34.665	27.87			14957	558	217	311	112	796	
STD	3000	-.29	34.665	27.87	20.91	.792	14974						
OBS	3151	-.26	34.666	27.87			15002	563	207	305	108	795	
STD	3250	-.29	34.665	27.87	20.32	.843	15018						
OBS	3410	-.38	34.663	27.87			15041	569	205	305	109	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	273	29MAR1964	1254	6028S	3428W	4188	519	04	6				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	04	-5.9	-9.5		2					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	0.00	0.000	0.00	0.00	0.000	0						
STD	10	0.00	0.000	0.00	0.00	0.000	0						
STD	20	0.00	0.000	0.00	0.00	0.000	0						
STD	30	0.00	0.000	0.00	0.00	0.000	0						
STD	50	0.00	0.000	0.00	0.00	0.000	0						
STD	75	0.00	0.000	0.00	0.00	0.000	0						
STD	100	0.00	0.000	0.00	0.00	0.000	0						
STD	150	0.00	0.000	0.00	0.00	0.000	0						
STD	200	0.00	0.000	0.00	0.00	0.000	0						
STD	250	0.00	0.000	0.00	0.00	0.000	0						
STD	300	0.00	0.000	0.00	0.00	0.000	0						
STD	400	0.00	0.000	0.00	0.00	0.000	0						
STD	500	0.00	0.000	0.00	0.00	0.000	0						
STD	600	0.00	0.000	0.00	0.00	0.000	0						
STD	700	0.00	0.000	0.00	0.00	0.000	0						
STD	800	0.00	0.000	0.00	0.00	0.000	0						
STD	900	0.00	0.000	0.00	0.00	0.000	0						
STD	1000	0.00	0.000	0.00	0.00	0.000	0						
STD	1250	0.00	0.000	0.00	0.00	0.000	0						
STD	1500	0.00	0.000	0.00	0.00	0.000	0						
STD	1750	0.00	0.000	0.00	0.00	0.000	0						
STD	2000	0.00	0.000	0.00	0.00	0.000	0						
STD	2250	0.00	0.000	0.00	0.00	0.000	0						
STD	2500	0.00	0.000	0.00	0.00	0.000	0						
STD	2750	0.00	0.000	0.00	0.00	0.000	0						
OBS	2992	-.33	34.673	27.88			14980	561	230	303	105	795	
STD	3000	-.33	34.672	27.88	19.86	.025	14981						
OBS	3238	-.37	34.662	27.87			15020	569	232	303	104	794	
STD	3250	-.37	34.662	27.87	19.48	.074	15022						
OBS	3485	-.40	34.661	27.87			15061	574	232	298	104	794	
STD	3500	-.40	34.661	27.87	19.29	.122	15064						
OBS	3732	-.40	34.661	27.87			15104	574	230	298	104	794	
STD	3750	-.40	34.661	27.87	18.17	.169	15107						
OBS	3979	-.39	34.665	27.88			15148	576	229	299	103	794	
STD	4000	-.39	34.665	27.88	17.71	.214	15151						
OBS	4238	-.38	34.661	27.87			15194	580	227	298	102	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	274	30MAR1964	1421	6034S	2838W	3237	518	8	20				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	4	-2.0	-2.6	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.90	33.813	27.21			14435	815	176	248	65	813	
STD	0	-.90	33.813	27.21	87.20	0.000	14435						
STD	10	-.96	33.811	27.21	87.08	.009	14434						
STD	20	-.97	33.811	27.21	86.95	.017	14435						
OBS	23	-.98	33.811	27.21			14435	809	167	238	62	814	
STD	30	-.91	33.813	27.21	86.94	.026	14439						
OBS	48	-.85	33.819	27.21			14445	803	180	235	64	813	
STD	50	-.91	33.861	27.25	83.19	.043	14443						
OBS	71	-1.55	34.314	27.64			14423	735	218	292	88	808	
STD	75	-1.60	34.345	27.66	43.95	.059	14422						
OBS	96	-1.63	34.402	27.71			14424	712	223	296	87	805	
STD	100	-1.60	34.410	27.71	38.49	.069	14427						
OBS	144	-1.01	34.474	27.75			14462	652	223	294	85	802	
STD	150	-.92	34.483	27.75	35.02	.088	14468						
OBS	193	-.35	34.544	27.78			14502	581	227	323	92	802	
STD	200	-.28	34.552	27.78	32.57	.105	14506						
STD	250	.08	34.597	27.80	31.02	.120	14531						
OBS	291	.24	34.622	27.81			14546	513	231	328	103	800	
STD	300	.27	34.626	27.81	30.04	.136	14549						
OBS	389	.42	34.650	27.82			14570	490	237	333	106	798	
STD	400	.42	34.652	27.82	29.32	.165	14572						
STD	500	.42	34.665	27.83	27.73	.194	14589						
OBS	587	.36	34.670	27.84			14600	484	238	332	108	798	
STD	600	.36	34.670	27.84	27.50	.222	14602						
STD	700	.33	34.672	27.84	26.92	.249	14617						
OBS	784	.31	34.671	27.84			14630	484	240	327	113	799	
STD	800	.31	34.671	27.84	26.69	.276	14633						
STD	900	.29	34.670	27.84	26.62	.302	14649						
OBS	981	.28	34.670	27.85			14661	490	235	342	117	798	
STD	1000	.27	34.670	27.85	26.63	.329	14664						
OBS	1228	.18	34.672	27.85			14698	501	234	343	118	798	
STD	1250	.17	34.672	27.85	25.06	.393	14701						
STD	1500	.07	34.676	27.86	24.19	.455	14738						
OBS	1738	-.01	34.679	27.87			14774	524	229	330	117	798	
STD	1750	-.01	34.679	27.87	22.79	.514	14776						
OBS	1988	-.08	34.677	27.87			14813	524	234	312	117	797	
STD	2000	-.08	34.677	27.87	22.68	.571	14814						
OBS	2238	-.11	34.675	27.87			14853	530	233	319	122	797	
STD	2250	-.11	34.675	27.87	22.24	.627	14855						
OBS	2488	-.10	34.678	27.87			14896	541	234	323	123	796	
STD	2500	-.10	34.678	27.87	22.73	.683	14898						
OBS	2738	-.09	34.671	27.87			14939	530	229	324	118	796	
STD	2750	-.09	34.671	27.87	22.70	.740	14941						
OBS	2989	-.08	34.673	27.87			14982	541	228	319	118	794	
STD	3000	-.08	34.673	27.87	22.88	.797	14984						
OBS	3239	-.06	34.672	27.87			15026	536	233	317	122	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	275	1 APR 1964	25	6214S	3026W	4874	519	20	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		260	6	-1.2	-1.5	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.85	33.652	27.11			14388	804	147	201	55	809	
STD	0	-1.85	33.652	27.11	96.93	0.000	14388						
STD	10	-1.87	33.641	27.10	97.66	.010	14388						
OBS	12	-1.88	33.640	27.10			14388	827	149	209	49	813	
STD	20	-1.94	33.601	27.07	100.44	.020	14386						
OBS	25	-1.96	33.650	27.11			14387	827	156	205	51	813	
STD	30	-1.88	33.925	27.33	75.63	.028	14395						
OBS	37	-1.76	34.312	27.64			14407	713	187	259	63	805	
OBS	50	-1.82	34.346	27.67			14407	707	189	266	64	803	
STD	50	-1.82	34.346	27.67	43.22	.040	14407						
STD	75	-1.38	34.429	27.72	38.14	.050	14433						
OBS	78	-1.29	34.441	27.73			14438	644	212	276	78	802	
STD	100	-.62	34.538	27.78	32.28	.059	14474						
OBS	107	-.41	34.569	27.80			14486	529	224	304	90	792	
STD	150	.16	34.653	27.84	27.28	.074	14520						
OBS	175	.26	34.689	27.86			14529	456	229	326	106	790	2
STD	200	.35	34.638	27.82	29.48	.088	14536						
STD	250	.40	34.675	27.84	27.07	.103	14547						
OBS	258	.40	34.681	27.85			14549	448	238	330	108	789	
STD	300	.43	34.691	27.85	26.12	.116	14557						
STD	400	.46	34.699	27.86	25.99	.142	14575						
OBS	450	.45	34.695	27.86			14582	450	231	322	111	790	
STD	500	.44	34.694	27.86	25.69	.168	14590						
STD	600	.41	34.691	27.85	26.34	.194	14605						
OBS	664	.38	34.687	27.85			14614	402	229	325	111	790	
STD	700	.36	34.686	27.85	26.09	.220	14619						
STD	800	.32	34.684	27.85	25.78	.246	14633						
STD	900	.27	34.682	27.86	25.59	.272	14648						
STD	1000	.22	34.680	27.86	25.51	.297	14662						
STD	1250	.11	34.676	27.86	24.27	.359	14698						
STD	1500	0.00	34.674	27.86	23.70	.419	14734						
OBS	1520	-.01	34.674	27.86			14737	507	227	320	119	789	
STD	1750	-.07	34.671	27.87	22.79	.477	14773						
OBS	1777	-.08	34.671	27.87			14777	524	227	320	116	789	
STD	2000	-.13	34.668	27.87	22.87	.534	14812						
OBS	2042	-.14	34.667	27.87			14819	542	223	311	114	789	
STD	2250	-.19	34.662	27.86	22.32	.591	14851						
OBS	2316	-.21	34.661	27.86			14862	542	218	316	114	787	
STD	2500	-.26	34.661	27.87	22.19	.647	14891						
OBS	2703	-.30	34.663	27.87			14924	548	220	320	114	792	
STD	2750	-.31	34.663	27.87	20.78	.700	14931						
STD	3000	-.34	34.662	27.87	20.56	.752	14972						
OBS	3183	-.36	34.660	27.87			15003	559	220	318	108	790	
STD	3250	-.37	34.660	27.87	19.63	.802	15014						
STD	3500	-.42	34.658	27.87	19.31	.851	15055						
OBS	3694	-.45	34.656	27.87			15087	581	216	313	102	790	
STD	3750	-.46	34.655	27.87	17.82	.897	15096						
STD	4000	-.48	34.652	27.87	17.34	.941	15139						
OBS	4080	-.48	34.652	27.87			15153	593	217	304	100	790	
OBS	4355	-.45	34.655	27.87			15203	593	215	300	100	789	
STD	4500	-.45	34.657	27.87	16.99	1.027	15228						
OBS	4599	-.45	34.657	27.87			15246	595	215	309	101	790	
OBS	4849	-.45	34.654	27.87			15290	604	210	316	100	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	276	1 APR 1964	2035	6044S	3059W	4000	519	0	13				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		345	4	- .7	-2.0	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.49	33.582	27.04			14404	813					
STD	0	-1.49	33.582	27.04	103.15	0.000	14404						
STD	10	-1.52	33.582	27.04	102.95	.010	14404						
STD	20	-1.54	33.583	27.04	102.78	.021	14405						
OBS	24	-1.54	33.583	27.04			14405	810	147	226	63	812	
STD	30	-1.53	33.599	27.05	101.50	.031	14407						
OBS	49	-1.52	33.648	27.09			14411	811	144	216	57	812	
STD	50	-1.53	33.680	27.12	95.03	.050	14412						
OBS	73	-1.77	34.418	27.73			14414	726	145	218	59	811	
STD	75	-1.78	34.435	27.74	36.58	.067	14414						
OBS	98	-1.79	34.439	27.74			14418	709	156	219	65	807	
STD	100	-1.78	34.439	27.74	35.81	.076	14418						
OBS	147	-1.43	34.444	27.74			14443	661	187	265	73	803	
STD	150	-1.38	34.450	27.74	35.85	.094	14446						
OBS	196	-.61	34.558	27.80			14491	574	191	279	87	803	
STD	200	-.56	34.564	27.80	30.28	.110	14494						
STD	250	-.02	34.627	27.83	28.26	.125	14527						
OBS	293	.26	34.654	27.83			14548	482	211	284	97	801	
STD	300	.28	34.657	27.83	27.79	.139	14550						
OBS	391	.42	34.676	27.84			14571	465	225	297	110	799	
STD	400	.43	34.677	27.84	27.46	.167	14573						
STD	500	.47	34.683	27.84	26.79	.194	14591						
OBS	588	.46	34.682	27.84			14605	448	227	318	110	796	
STD	600	.46	34.682	27.85	27.30	.221	14607						
STD	700	.41	34.684	27.85	26.57	.248	14621						
OBS	785	.36	34.685	27.85			14633	465	231	323	114	796	
STD	800	.35	34.685	27.85	25.99	.274	14635						
STD	900	.31	34.683	27.85	25.82	.300	14650						
OBS	981	.28	34.681	27.85			14661	482	235	329	113	794	
STD	1000	.27	34.681	27.85	25.83	.326	14664						
OBS	1230	.12	34.674	27.86			14695	488	233	332	120	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	277	2 APR 1964	1242	6034S	3103W	3605	519	1	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			325	5	- .1	- .5	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.61	33.532	27.00			14398	816	200	252	64	814	
STD	0	-1.61	33.532	27.00	106.69	0.000	14398						
STD	10	-1.65	33.532	27.00	106.50	.011	14397						
OBS	11	-1.65	33.532	27.00			14397	816	198	249	61	809	
STD	20	-1.63	33.505	26.98	108.54	.021	14400						
OBS	24	-1.61	33.532	27.00			14401	811	211	249	62	810	
STD	30	-1.58	33.759	27.19	89.02	.031	14407						
OBS	38	-1.57	34.103	27.46			14414	760	232	272	68	811	
STD	50	-1.68	34.337	27.66	44.31	.045	14414						
OBS	54	-1.72	34.379	27.69			14413	714	243	287	77	808	
STD	75	-1.79	34.457	27.76	34.85	.055	14414						
OBS	86	-1.77	34.439	27.74			14417	692	254	297	80	803	
STD	100	-1.71	34.455	27.75	34.80	.063	14422						
OBS	120	-1.54	34.474	27.76			14434	669	254	301	83	801	
STD	150	-.98	34.519	27.78	32.07	.080	14465						
OBS	194	-.13	34.589	27.80			14513	539	247	332	95	796	
STD	200	-.07	34.598	27.81	30.15	.095	14516						
STD	250	.25	34.664	27.84	26.97	.110	14540						
OBS	272	.30	34.687	27.86			14546	465	241	346	110	796	
STD	300	.37	34.687	27.85	26.03	.123	14554						
STD	400	.48	34.700	27.86	26.09	.149	14576						
OBS	434	.47	34.689	27.85			14581	459	251	348	116	798	
STD	500	.46	34.689	27.85	26.25	.175	14591						
STD	600	.41	34.687	27.85	26.63	.202	14605						
OBS	602	.41	34.687	27.85			14605	454	267	347	120	795	
STD	700	.38	34.683	27.85	26.38	.228	14620						
OBS	771	.35	34.681	27.85			14630	460	277	347	121	791	
STD	800	.34	34.681	27.85	26.16	.254	14634						
STD	900	.28	34.680	27.85	25.83	.280	14648						
OBS	984	.24	34.680	27.86			14660	471	273	346	110	790	
STD	1000	.23	34.680	27.86	25.59	.306	14662						
STD	1250	.14	34.677	27.86	24.48	.369	14700						
OBS	1389	.09	34.675	27.86			14720	499	268	336	112	792	
STD	1500	.03	34.674	27.86	23.99	.429	14736						
OBS	1610	-.03	34.672	27.86			14752	510	266	335	111	794	
STD	1750	-.08	34.668	27.86	22.98	.488	14773						
OBS	1833	-.10	34.666	27.86			14786	522	258	338	110	794	
STD	2000	-.15	34.662	27.86	23.07	.546	14811						
OBS	2061	-.17	34.661	27.86			14821	533	256	337	110	797	
STD	2250	-.22	34.659	27.86	22.24	.602	14850						
OBS	2327	-.24	34.659	27.86			14862	550	234	329	109	796	
STD	2500	-.28	34.658	27.86	22.24	.658	14890						
OBS	2610	-.30	34.657	27.86			14908	551	229	331	106	797	
STD	2750	-.34	34.657	27.87	20.81	.712	14929						
OBS	2895	-.38	34.657	27.87			14953	561	222	330	105	796	
STD	3000	-.40	34.655	27.87	20.28	.763	14969						
OBS	3172	-.43	34.652	27.87			14998	567	224	329	105	796	
STD	3250	-.44	34.652	27.87	19.35	.813	15010						
OBS	3464	-.46	34.653	27.87			15047	578	224	322	101	796	
STD	3500	-.46	34.654	27.87	19.02	.861	15053						
OBS	3706	-.47	34.657	27.87			15088	584	225	328	100	795	
STD	3750	-.47	34.657	27.87	17.48	.906	15095						
OBS	3951	-.48	34.657	27.87			15131	593	220	322	97	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	278	3APR1964	1318	5921S	3116W	3493	483	91	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		45	3	.5	.3	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.46	33.776	27.16			14455	794	168	221	57	805	
STD	0	-.46	33.776	27.16	91.69	0.000	14455						
STD	10	-.46	33.772	27.16	91.98	.009	14457						
STD	20	-.46	33.769	27.16	92.10	.018	14458						
OBS	23	-.45	33.769	27.16			14459	794	183	210	52	813	
STD	30	-.39	33.770	27.15	92.21	.028	14463						
OBS	48	-.36	33.774	27.16			14467	782	186	213	57	813	
STD	50	-.39	33.792	27.17	90.43	.046	14466						
OBS	71	-.89	34.045	27.40			14450	737	209	249	65	812	
STD	75	-1.00	34.098	27.44	64.76	.065	14446						
OBS	96	-1.47	34.345	27.66			14431	686	229	279	75	803	
STD	100	-1.46	34.369	27.68	42.11	.079	14433						
OBS	144	-.84	34.478	27.74			14470	641	232	283	80	803	
STD	150	-.76	34.487	27.75	35.39	.098	14475						
OBS	193	-.27	34.532	27.76			14505	584	219	289	85	800	
STD	200	-.21	34.539	27.77	33.92	.115	14510						
STD	250	.17	34.586	27.78	32.38	.132	14535						
OBS	291	.36	34.617	27.80			14551	510	226	300	92	798	
STD	300	.38	34.621	27.80	31.09	.148	14554						
OBS	389	.48	34.650	27.82			14573	493	224	309	96	795	
STD	400	.48	34.652	27.82	29.70	.178	14575						
STD	500	.47	34.664	27.83	28.18	.207	14591						
OBS	587	.43	34.667	27.83			14603	488	232	307	100	798	
STD	600	.43	34.668	27.84	28.20	.235	14605						
STD	700	.42	34.673	27.84	27.55	.263	14622						
OBS	787	.42	34.674	27.84			14636	482	223	320	107	795	
STD	800	.42	34.673	27.84	27.32	.291	14638						
STD	900	.40	34.669	27.84	27.52	.318	14653						
OBS	986	.38	34.666	27.84			14667	459	220	314	109	794	
STD	1000	.38	34.666	27.84	27.72	.346	14669						
OBS	1236	.30	34.677	27.85			14704	493	219	316	108	794	
STD	1250	.29	34.677	27.85	25.76	.412	14706						
OBS	1494	.19	34.674	27.85			14742	505	218	312	111	793	
STD	1500	.19	34.674	27.85	25.40	.476	14743						
OBS	1744	.09	34.669	27.85			14779	510	221	316	113	794	
STD	1750	.09	34.669	27.85	24.49	.539	14780						
OBS	1994	-.02	34.662	27.86			14816	522	221	314	109	795	
STD	2000	-.02	34.662	27.86	24.39	.600	14817						
OBS	2243	-.06	34.661	27.86			14856	526	236	314	106	795	
STD	2250	-.06	34.661	27.86	23.79	.660	14857						
OBS	2493	-.09	34.662	27.86			14897	527	223	312	111	796	
STD	2500	-.09	34.662	27.86	23.97	.720	14898						
OBS	2743	-.14	34.658	27.86			14937	539	217	313	114	795	
STD	2750	-.14	34.658	27.86	23.03	.779	14938						
OBS	2992	-.20	34.663	27.86			14977	544	219	316	109	794	
STD	3000	-.20	34.663	27.86	22.12	.835	14978						
OBS	3242	-.23	34.660	27.86			15019	550	221	318	106	795	
STD	3250	-.23	34.660	27.86	21.39	.889	15020						
OBS	3492	-.25	34.657	27.86			15061	549	218	315	111	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	279	5 APR 1964	430	6026S	3243W	3689	519	2	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			320	2	-6.0	-11.4	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.95	33.713	27.13			14431	792	162	216	56	813	
STD	0	-.95	33.713	27.13	94.69	0.000	14431						
STD	10	-.95	33.716	27.13	94.41	.009	14433						
STD	20	-.95	33.718	27.13	94.15	.019	14434						
OBS	24	-.96	33.719	27.13			14435	815	160	207	54	813	
STD	30	-.97	33.723	27.14	93.59	.028	14435						
OBS	50	-1.06	33.833	27.23			14436	775	171	222	59	813	
STD	50	-1.06	33.833	27.23	84.77	.046	14436						
OBS	74	-1.25	34.277	27.60			14437	695	207	282	79	805	
STD	75	-1.25	34.286	27.60	49.49	.063	14437						
OBS	100	-1.18	34.423	27.71			14447	667	206	299	87	802	
STD	100	-1.18	34.423	27.71	38.89	.074	14447						
OBS	150	-.61	34.503	27.75			14482	616	211	300	91	801	
STD	150	-.61	34.503	27.75	34.85	.092	14482						
OBS	200	.14	34.558	27.76			14526	570	215	310	94	801	
STD	200	.14	34.558	27.76	34.37	.110	14526						
STD	250	.29	34.594	27.78	32.49	.126	14541						
OBS	300	.21	34.619	27.81			14546	524	216	311	104	799	
STD	300	.21	34.619	27.81	30.21	.142	14546						
OBS	400	.37	34.653	27.83			14570	495	219	311	104	796	
STD	400	.37	34.653	27.83	28.89	.172	14570						
STD	500	.41	34.667	27.84	27.53	.200	14588						
OBS	600	.40	34.673	27.84			14604	477	223	311	111	795	
STD	600	.40	34.673	27.84	27.61	.227	14604						
STD	700	.39	34.682	27.85	26.60	.254	14620						
OBS	800	.37	34.687	27.85			14636	479	220	317	115	791	
STD	800	.37	34.687	27.85	25.95	.281	14636						
STD	900	.34	34.682	27.85	26.17	.307	14651						
OBS	1000	.31	34.675	27.85			14666	482	216	322	119	791	
STD	1000	.31	34.675	27.85	26.55	.333	14666						
OBS	1250	.21	34.684	27.86			14703	502	229	321	125	793	
STD	1250	.21	34.684	27.86	24.53	.397	14703						
OBS	1440	.13	34.675	27.86			14731	502	214	315	121	789	
STD	1500	.10	34.672	27.86	24.76	.459	14739						
OBS	1688	.01	34.666	27.86			14766	519	223	315	120	793	
STD	1750	-.02	34.667	27.86	23.65	.519	14775						
OBS	1937	-.10	34.669	27.86			14803	507	214	311	120	795	
STD	2000	-.12	34.668	27.86	22.95	.577	14812						
OBS	2168	-.18	34.663	27.86			14838	542	215	311	117	796	
STD	2250	-.20	34.662	27.86	22.28	.634	14851						
OBS	2436	-.25	34.660	27.86			14880	547	222	305	117	795	
STD	2500	-.28	34.660	27.87	22.06	.689	14890						
OBS	2685	-.35	34.661	27.87			14918	564	239	303	114	796	
STD	2750	-.37	34.662	27.87	20.17	.742	14928						
OBS	2934	-.41	34.662	27.87			14958	576	223	303	115	796	
STD	3000	-.42	34.661	27.87	19.62	.792	14968						
OBS	3184	-.44	34.658	27.87			14999	576	219	302	113	795	
STD	3250	-.44	34.657	27.87	18.95	.840	15010						
OBS	3433	-.44	34.657	27.87			15042	570	226	303	115	796	
STD	3500	-.44	34.658	27.87	18.97	.888	15053						
OBS	3683	-.45	34.663	27.88			15085	581	215	306	116	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	280	5 APR 1964	1638	6132S	3331W	4221	519	13	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		190	7	-10.0	-12.8	0	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.50	33.693	27.13			14405	817	151	195	58	816	
STD	0	-1.50	33.693	27.13	94.60	0.000	14405						
STD	10	-1.54	33.692	27.13	94.48	.009	14405						
STD	20	-1.55	33.691	27.13	94.44	.019	14406						
OBS	22	-1.55	33.691	27.13			14406	815	150	183	54	816	
STD	30	-1.53	33.665	27.11	96.38	.028	14408						
OBS	41	-1.50	33.698	27.13			14412	815	160	185	56	816	
STD	50	-1.52	33.915	27.31	77.07	.046	14415						
OBS	61	-1.56	34.205	27.55			14419	713	209	251	72	811	
STD	75	-1.63	34.346	27.66	43.81	.061	14420						
OBS	82	-1.65	34.378	27.69			14421	695	214	270	77	803	
STD	100	-1.60	34.434	27.73	36.68	.071	14427						
OBS	125	-1.39	34.460	27.75			14441	644	213	285	79	802	
STD	150	-1.02	34.515	27.78	32.24	.088	14464						
OBS	168	-.72	34.552	27.80			14481	581	224	297	94	801	
STD	200	-.33	34.594	27.82	29.12	.104	14505						
STD	250	.11	34.634	27.83	28.44	.118	14534						
OBS	254	.14	34.636	27.83			14536	502	239	318	103	794	
STD	300	.30	34.654	27.83	28.16	.132	14551						
OBS	343	.36	34.661	27.83			14560	507	241	318	108	795	
STD	400	.44	34.670	27.84	28.08	.160	14573						
STD	500	.49	34.677	27.84	27.33	.188	14592						
OBS	541	.49	34.678	27.84			14599	462	235	316	110	791	
STD	600	.47	34.679	27.84	27.60	.215	14607						
STD	700	.40	34.679	27.85	26.89	.243	14621						
OBS	701	.40	34.679	27.85			14621	467	228	317	115	791	
STD	800	.36	34.678	27.85	26.54	.269	14635						
OBS	882	.33	34.677	27.85			14647	471	238	317	122	790	
STD	900	.32	34.677	27.85	26.36	.296	14650						
STD	1000	.27	34.675	27.85	26.26	.322	14664						
OBS	1109	.21	34.672	27.85			14679	490	232	318	123	789	
STD	1250	.14	34.669	27.85	25.04	.386	14699						
OBS	1464	.05	34.666	27.85			14731	507	231	309	118	793	
STD	1500	.04	34.666	27.85	24.68	.448	14736						
OBS	1694	-.03	34.663	27.86			14765	518	225	310	121	792	
STD	1750	-.05	34.662	27.86	23.65	.509	14774						
OBS	1927	-.12	34.660	27.86			14800	524	223	309	120	794	
STD	2000	-.14	34.659	27.86	23.42	.568	14812						
OBS	2208	-.19	34.656	27.86			14844	542	219	219	121	791	
STD	2250	-.20	34.655	27.86	22.73	.625	14851						
OBS	2498	-.27	34.652	27.86			14890	547	216	297	117	795	
STD	2500	-.27	34.652	27.86	22.71	.682	14890						
STD	2750	-.32	34.649	27.86	21.57	.737	14930						
OBS	2779	-.33	34.649	27.86			14935	559	215	301	116	794	
STD	3000	-.38	34.648	27.86	20.98	.791	14970						
OBS	3066	-.40	34.648	27.86			14981	576	216	302	115	794	
STD	3250	-.43	34.647	27.86	19.84	.842	15011						
OBS	3356	-.44	34.647	27.86			15029	581	213	302	111	792	
STD	3500	-.48	34.647	27.87	19.30	.891	15052						
OBS	3724	-.51	34.648	27.87			15090	591	215	301	107	792	
STD	3750	-.50	34.649	27.87	17.66	.937	15094						
OBS	3966	-.45	34.652	27.87			15135	587	218	298	109	792	
STD	4000	-.45	34.652	27.87	17.82	.981	15140						
OBS	4218	-.47	34.646	27.86			15178	593	218	299	110	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 12	281	6 APR 1964	1820	6141S	3500W	3661	519	15	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
250	5	-8.0	-11.0	0	3

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.49	33.795	27.21			14407	815	157	186	57	815	
STD	0	-1.49	33.795	27.21	86.79	0.000	14407						
STD	10	-1.52	33.795	27.21	86.57	.009	14407						
STD	20	-1.54	33.796	27.22	86.41	.017	14408						
OBS	22	-1.54	33.796	27.22			14408	807	149	200	54	815	
STD	30	-1.53	33.796	27.22	86.33	.026	14410						
OBS	45	-1.49	33.797	27.21			14414	801	164	215	54	814	
STD	50	-1.49	33.896	27.29	78.64	.042	14417						
OBS	67	-1.50	34.258	27.59			14424	709	198	215	74	806	
STD	75	-1.56	34.330	27.65	45.23	.058	14423						
OBS	91	-1.63	34.404	27.71			14424	669	207	255	78	805	
STD	100	-1.50	34.447	27.74	36.02	.068	14432						
OBS	136	-.72	34.568	27.81			14476	589	214	293	88	802	
STD	150	-.46	34.594	27.82	28.58	.084	14491						
OBS	182	.04	34.631	27.83			14519	509	232	295	100	797	
STD	200	.18	34.645	27.83	28.04	.098	14529						
STD	250	.40	34.668	27.84	27.58	.112	14547						
OBS	275	.41	34.672	27.84			14552	486	219	294	108	791	
STD	300	.45	34.677	27.84	27.31	.126	14558						
OBS	369	.49	34.683	27.84			14571	458	226	322	115	792	
STD	400	.50	34.685	27.84	27.33	.153	14576						
STD	500	.51	34.689	27.85	26.56	.180	14593						
OBS	557	.49	34.689	27.85			14602	452	230	320	120	791	
STD	600	.46	34.688	27.85	26.91	.207	14607						
STD	700	.38	34.685	27.85	26.32	.234	14620						
OBS	747	.34	34.683	27.85			14626	480	231	314	122	795	
STD	800	.32	34.683	27.85	25.82	.260	14633						
STD	900	.28	34.685	27.86	25.47	.285	14648						
OBS	938	.27	34.685	27.86			14654	486	226	300	124	794	
STD	1000	.24	34.684	27.86	25.36	.311	14663						
OBS	1177	.16	34.679	27.86			14688	490	233	301	126	795	
STD	1250	.12	34.678	27.86	24.26	.373	14699						
OBS	1474	.02	34.675	27.86			14731	503	230	296	126	796	
STD	1500	.01	34.675	27.86	23.77	.433	14735						
OBS	1722	-.06	34.671	27.86			14769	515	233	298	126	797	
STD	1750	-.07	34.671	27.86	22.88	.491	14773						
OBS	1976	-.14	34.668	27.87			14808	526	228	300	126	797	
STD	2000	-.15	34.667	27.87	22.73	.548	14811						
OBS	2225	-.22	34.662	27.87			14846	540	225	299	126	797	
STD	2250	-.23	34.662	27.87	21.98	.604	14850						
OBS	2470	-.28	34.664	27.87			14885	555	219	305	122	796	
STD	2500	-.29	34.664	27.87	21.66	.659	14889						
OBS	2714	-.35	34.660	27.87			14923	555	223	310	122	796	
STD	2750	-.36	34.659	27.87	20.43	.711	14928						
OBS	2960	-.41	34.655	27.87			14962	566	218	308	120	796	
STD	3000	-.41	34.655	27.87	20.20	.762	14969						
OBS	3208	-.41	34.654	27.87			15005	572	220	308	118	795	
STD	3250	-.41	34.654	27.87	19.52	.812	15012						
OBS	3456	-.43	34.656	27.87			15047	578	220	309		794	
STD	3500	-.44	34.656	27.87	19.19	.860	15054						
OBS	3706	-.47	34.655	27.87			15088	583	220	314		795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	282	7APR1964	1603	6110S	3522W	4135	519	15	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			50	6	-2.2	-1.4	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.50	33.779	27.20			14406	806	160	222	52	812	
STD	0	-1.50	33.779	27.20	87.99	0.000	14406						
STD	10	-1.49	33.765	27.19	89.04	.009	14408						
OBS	19	-1.46	33.760	27.18			14411	811	153	221	49	813	
STD	20	-1.45	33.760	27.18	89.37	.018	14411						
STD	30	-1.38	33.768	27.19	88.93	.027	14416						
OBS	39	-1.33	33.778	27.19			14421	783	162	216	52	813	
STD	50	-1.34	33.755	27.18	89.82	.045	14422						
OBS	59	-1.38	33.795	27.21			14422	834	165	310	51	812	4
STD	75	-1.52	34.221	27.56	53.66	.062	14424						
OBS	80	-1.56	34.368	27.68			14425	593	211	284	82	804	
STD	100	-1.50	34.514	27.80	30.84	.073	14433						
OBS	123	-1.30	34.488	27.77			14446	593	218	291	86	802	
STD	150	-1.03	34.532	27.79	30.87	.088	14463						
OBS	166	-.86	0.000	0.00			0	599	222	301	93	801	
STD	200	-.56	34.590	27.82	28.31	.103	14494						
STD	250	-.21	34.618	27.83	27.90	.117	14519						
OBS	255	-.18	34.619	27.83			14511	541	237	313	100	798	
STD	300	.01	34.641	27.84	27.35	.131	14537						
OBS	345	.14	0.000	0.00			0	501	242	318	107	795	
STD	400	.25	34.675	27.85	26.48	.158	14565						
STD	500	.36	34.676	27.85	26.51	.185	14586						
OBS	530	.37	34.683	27.85			14563	489	248	315	112	793	
STD	600	.36	34.687	27.85	26.27	.211	14603						
STD	700	.35	34.688	27.86	25.81	.237	14618						
OBS	717	0.00	34.688	0.00			0	483	248	318	117	798	
STD	800	.33	34.688	27.86	25.61	.263	14634						
STD	900	.32	34.687	27.86	25.60	.288	14650						
OBS	905	.32	34.687	27.86			14587	483	244	319	118	797	
STD	1000	.27	34.687	27.86	25.37	.314	14664						
OBS	1141	.20	34.687	27.86			14620	506	230	321	122	799	
STD	1250	.15	34.685	27.86	24.02	.376	14700						
OBS	1440	.08	34.680	27.86			14664	506	222	317	121	798	
STD	1500	.05	34.680	27.87	23.78	.435	14737						
OBS	1675	-.02	34.679	27.87			14698	518	220	310	122	798	
STD	1750	-.05	34.678	27.87	22.51	.493	14774						
OBS	1923	-.10	34.677	27.87			14736	518	214	313	121	797	
STD	2000	-.11	34.676	27.87	22.40	.549	14813						
OBS	2221	-.15	34.675	27.87			14784	547	211	303	122	797	
STD	2250	-.16	34.675	27.87	21.78	.605	14853						
STD	2500	-.23	34.673	27.87	21.57	.659	14892						
OBS	2515	-.24	34.673	27.87			14829	547	208	300	119	795	
STD	2750	-.37	34.667	27.88	19.77	.710	14928						
OBS	2810	-.40	34.666	27.88			14872	576	208	298	114	794	
STD	3000	-.47	34.668	27.88	18.62	.758	14967						
OBS	3110	-.49	34.669	27.88			14919	599	209	298	109	795	
STD	3250	-.51	34.668	27.88	17.34	.803	15008						
OBS	3410	-.51	34.667	27.88			14969	593	207	303	108	794	
STD	3500	-.51	34.666	27.88	17.51	.847	15051						
OBS	3714	-.50	34.664	27.88			15022	593	208	313	107	794	
STD	3750	-.50	34.664	27.88	16.68	.890	15095						
OBS	3962	-.47	34.664	27.88			15066	576	204	318	108	793	
STD	4000	-.47	34.664	27.88	16.69	.931	15139						
OBS	4211	-.46	34.663	27.88			15110	576	202	317	105	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 12	283	8APR1964	2022	5859S	3403W	3431	483	84	21

WIND DIR		FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
190		4	-1.0	-1.4	0	3

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	.33	33.859	27.19			14492	764	153	245	44	803	
STD	0	.33	33.859	27.19	88.98	0.000	14492						
STD	10	.34	33.853	27.18	89.41	.009	14494						
STD	20	.34	33.849	27.18	89.70	.018	14496						
OBS	24	.34	33.848	27.18			14496	765	159	249	45	806	
STD	30	.34	33.848	27.18	89.76	.027	14497						
OBS	50	.34	33.848	27.18			14501	764	156	249	63	811	
STD	50	.34	33.848	27.18	89.70	.045	14501						
OBS	74	-.10	34.152	27.45			14489	695	192	305	75	803	
STD	75	-.12	34.162	27.46	63.65	.064	14488						
OBS	100	-.45	34.349	27.62			14479	638	215	355	83	799	
STD	100	-.45	34.349	27.62	47.48	.078	14479						
OBS	150	.05	34.485	27.71			14512	580	213	366	88	794	
STD	150	.05	34.485	27.71	39.46	.100	14512						
OBS	200	.61	34.565	27.74			14547	523	223	363	91	794	
STD	200	.61	34.565	27.74	36.62	.119	14547						
STD	250	.80	34.605	27.76	34.91	.136	14565						
OBS	300	.85	34.627	27.78			14575	498	225	355	95	792	
STD	300	.85	34.627	27.78	33.70	.154	14575						
OBS	400	1.07	34.673	27.80			14602	471	221	352	102	792	
STD	400	1.07	34.673	27.80	32.22	.187	14602						
STD	500	1.07	34.694	27.82	30.23	.218	14618						
OBS	600	.96	34.701	27.83			14630	471	220	352	109	790	
STD	600	.96	34.701	27.83	29.63	.248	14630						
STD	700	.86	34.703	27.84	28.56	.277	14642						
OBS	800	.75	34.702	27.84			14653	486	215	360	111	791	
STD	800	.75	34.702	27.84	27.77	.305	14653						
STD	900	.66	34.704	27.85	26.99	.332	14666						
OBS	1000	.58	34.705	27.86			14678	483	212	363	115	791	
STD	1000	.58	34.705	27.86	26.50	.359	14678						
OBS	1250	.44	34.695	27.86			14713	488	215	362	118	792	
STD	1250	.44	34.695	27.86	25.69	.424	14713						
OBS	1424	.34	34.733	27.89			14738	494	213	358	119	792	
STD	1500	.30	34.724	27.89	22.77	.485	14749						
OBS	1674	.23	34.689	27.86			14774	503	215	354	118	792	
STD	1750	.20	34.685	27.86	24.40	.544	14785						
OBS	1924	.13	34.682	27.86			14811	529	219	355	118	791	
STD	2000	.09	34.681	27.86	24.15	.605	14822						
OBS	2174	.01	34.678	27.87			14848	532	220	357	116	791	
STD	2250	-.01	34.674	27.86	23.36	.664	14859						
OBS	2424	-.06	34.673	27.87			14887	529	217	356	116	791	
STD	2500	-.08	34.689	27.88	22.10	.721	14899						
OBS	2674	-.12	34.721	27.91			14927	552	211	354	113	792	
STD	2750	-.13	34.713	27.90	19.17	.772	14939						
OBS	2924	-.16	34.683	27.88			14968	552	211	354	113	792	
STD	3000	-.17	34.677	27.87	21.54	.823	14980						
OBS	3174	-.18	34.671	27.87			15010	546	209	358	107	792	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	284	9APR1964	1736	5903S	3703W	2868	483	97	17				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	8	-7.0	-11.5	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.21	33.937	27.26			14488	769	161	232	47	805	
STD	0	.21	33.937	27.26	82.42	0.000	14488						
STD	10	.21	33.931	27.25	82.86	.008	14490						
STD	20	.22	33.930	27.25	82.94	.017	14491						
OBS	22	.22	33.929	27.25			14492	772	160	229	44	809	
STD	30	.20	33.933	27.26	82.53	.025	14492						
OBS	46	.07	33.942	27.27			14489	769	165	227	46	811	
STD	50	-.03	34.009	27.33	75.61	.041	14486						
OBS	68	-.38	34.319	27.60			14477	650	201	285	74	802	
STD	75	-.34	34.359	27.63	47.58	.056	14481						
OBS	92	-.09	34.393	27.64			14495	625	222	305	76	800	
STD	100	.03	34.420	27.66	44.36	.068	14502						
OBS	140	.61	34.541	27.72			14537	528	220	304	80	800	
STD	150	.75	34.563	27.73	37.65	.088	14545						
OBS	187	1.17	34.620	27.75			14571	476	223	301	81	798	4
STD	200	1.17	34.626	27.75	35.70	.106	14573						
STD	250	1.03	34.633	27.77	34.37	.124	14575						
OBS	284	.82	34.624	27.78			14571	503	222	321	86	800	
STD	300	.82	34.629	27.78	33.29	.141	14574						
OBS	382	.88	34.662	27.80			14590	498	215	307	88	799	
STD	400	.89	34.667	27.81	31.38	.173	14594						
STD	500	.92	34.688	27.82	29.58	.204	14612						
OBS	582	.93	34.699	27.83			14626	477	218	302	96	799	
STD	600	.92	34.699	27.83	29.49	.233	14628						
STD	700	.87	34.699	27.83	28.99	.262	14642						
STD	800	.82	34.699	27.84	28.55	.291	14656						
STD	900	.76	34.699	27.84	28.17	.320	14670						
STD	1000	.69	34.699	27.84	27.85	.348	14683						
STD	1250	.48	34.699	27.86	25.74	.415	14715						
OBS	1384	.35	34.699	27.86			14731	494	220	307	110	797	
STD	1500	.29	34.695	27.87	24.75	.478	14748						
OBS	1630	.23	34.691	27.87			14767	498	219	310	112	797	
STD	1750	.18	34.688	27.87	24.00	.539	14785						
OBS	1878	.13	34.685	27.87			14804	511	219	317	114	796	
STD	2000	.06	34.681	27.87	23.76	.598	14821						
OBS	2126	-.01	34.678	27.87			14839	523	215	321	113	796	
STD	2250	-.04	34.676	27.87	22.89	.657	14858						
OBS	2306	-.06	34.675	27.87			14867	544	215	314	110	796	
STD	2500	-.16	34.673	27.87	22.36	.713	14895						
OBS	2547	-.19	34.673	27.87			14902	550	217	314	111	795	
STD	2750	-.29	34.673	27.88	20.23	.766	14932						
OBS	2788	-.31	34.673	27.88			14938	555	221	314	109	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	285	11 APR 1964	1450	6209S	3930W	2825	519	29	20				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		170	6	-9.5	-11.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.82	33.934	27.33			14393	771	171	223	58	808	
STD	0	-1.82	33.934	27.33	75.32	0.000	14393						
STD	10	-1.85	33.925	27.33	75.87	.008	14393						
OBS	18	-1.86	33.920	27.32			14394	800	172	220	55	815	
STD	20	-1.86	33.914	27.32	76.57	.015	14394						
STD	30	-1.84	33.905	27.31	77.21	.023	14397						
OBS	37	-1.81	33.919	27.32			14400	806	170	231	56	815	
STD	50	-1.65	34.063	27.43	65.40	.037	14411						
OBS	55	-1.59	34.135	27.49			14416	748	195	252	65	812	
STD	75	-1.64	34.417	27.72	38.29	.050	14421						
OBS	76	-1.64	34.430	27.73			14421	678	218	286	80	806	
STD	100	-1.46	34.521	27.80	30.49	.059	14435						
OBS	117	-1.24	34.515	27.79			14448	626	217	292	87	804	
STD	150	-.76	34.566	27.81	29.39	.074	14476						
OBS	160	-.61	34.579	27.82			14485	568	217	313	90	803	
STD	200	-.15	34.623	27.83	27.84	.088	14513						
OBS	247	.22	34.658	27.84			14538	481	225	324	99	800	
STD	250	.23	34.659	27.84	27.23	.102	14539						
STD	300	.39	34.676	27.84	26.98	.115	14555						
OBS	338	.43	34.682	27.85			14563	469	227	338	106	798	
STD	400	.45	34.687	27.85	26.88	.142	14574						
STD	500	.42	34.689	27.85	25.97	.169	14589						
OBS	523	.40	34.688	27.85			14592	469	237	322	108	799	
STD	600	.39	34.693	27.86	26.00	.195	14604						
STD	700	.37	34.699	27.86	25.16	.220	14620						
OBS	712	.37	34.700	27.86			14622	475	233	336	114	800	
STD	800	.33	34.699	27.87	24.73	.245	14634						
STD	900	.28	34.696	27.87	24.60	.270	14648						
OBS	902	.28	34.696	27.87			14649	493	233	322	116	799	
STD	1000	.22	34.690	27.86	24.71	.294	14662						
OBS	1141	.15	34.683	27.86			14682	498	229	323	118	800	
STD	1250	.12	34.681	27.86	23.95	.355	14698						
OBS	1272	.11	34.681	27.86			14702	498	226				
STD	1500	0.00	34.677	27.87	23.55	.415	14735						
OBS	1584	-.04	34.675	27.87			14747	516	222	322	118	798	
STD	1750	-.12	34.672	27.87	22.34	.472	14771						
OBS	1834	-.15	34.671	27.87			14784	533	228	315	118	799	
STD	2000	-.19	34.671	27.87	22.04	.528	14809						
OBS	2084	-.21	34.671	27.87			14823	539	223	316	117	799	
STD	2250	-.27	34.669	27.87	21.03	.581	14848						
OBS	2334	-.30	34.668	27.87			14861	527	222	317	115	798	
STD	2500	-.34	34.668	27.88	20.82	.634	14887						
OBS	2584	-.37	34.668	27.88			14900	566	213	314	111	798	
STD	2750	-.53	34.665	27.88	18.15	.682	14921						
OBS	2834	-.64	34.662	27.88			14930	597	225	307	101	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	286	13 APR 1964	1330	6055S	4128W	5238	520	1	24				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			130	6	-7.5	-8.5	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	-1.32	33.986	27.36			14418	836	159	240	67	809	
STD	0	-1.32	33.986	27.36	72.60	0.000	14418						
STD	10	-1.28	33.980	27.36	73.05	.007	14421						
STD	20	-1.25	33.977	27.35	73.30	.015	14424						
OBS	24	-1.24	33.977	27.35			14425	801	161	230	66	812	
STD	30	-1.22	33.978	27.35	73.26	.022	14427						
OBS	47	-1.18	33.982	27.36			14432	807	164	231	67	815	
STD	50	-1.17	33.997	27.37	71.85	.036	14433						
OBS	71	-1.18	34.150	27.49			14438	748	183	249	76	813	
STD	75	-1.22	34.190	27.52	56.98	.053	14437						
OBS	96	-1.45	34.385	27.69			14433	684	207	287	88	809	
STD	100	-1.46	34.402	27.70	39.58	.065	14433						
OBS	141	-1.27	34.477	27.76			14450	643	206	297	94	807	
STD	150	-1.15	34.496	27.77	33.12	.083	14457						
OBS	190	-.57	34.574	27.81			14492	514	226	305	101	804	
STD	200	-.47	34.586	27.82	29.06	.098	14498						
STD	250	-.06	34.631	27.83	27.70	.113	14526						
OBS	288	.12	34.647	27.84			14540	505	220	305	110	803	
STD	300	.16	34.652	27.84	27.42	.126	14544						
OBS	385	.34	34.676	27.85			14567	480	220	326	113	801	
STD	400	.36	34.679	27.85	26.88	.153	14570						
STD	500	.43	34.690	27.85	25.91	.180	14590						
OBS	583	.43	34.693	27.86			14603	500	218	325	118	800	
STD	600	.43	34.693	27.86	26.27	.206	14606						
STD	700	.40	34.694	27.86	25.82	.232	14621						
OBS	780	.37	34.692	27.86			14633	472	220	312	123	799	
STD	800	.36	34.692	27.86	25.54	.258	14636						
STD	900	.32	34.690	27.86	25.41	.283	14650						
OBS	976	.29	34.688	27.86			14661	491	220	314	126	798	
STD	1000	.28	34.688	27.86	25.35	.309	14664						
OBS	1225	.15	34.684	27.86			14696	492	228	314	122	800	
STD	1250	.14	34.684	27.86	23.95	.370	14699						
OBS	1463	.05	34.681	27.87			14731	519	228	300	120	799	
STD	1500	.04	34.681	27.87	23.57	.430	14736						
OBS	1715	-.03	34.678	27.87			14769	526	220	299	122	800	
STD	1750	-.04	34.678	27.87	22.62	.487	14774						
STD	2000	-.13	34.674	27.87	22.37	.544	14812						
OBS	2021	-.14	34.674	27.87			14815	544	218	303	119	800	
STD	2250	-.21	34.671	27.87	21.49	.598	14851						
OBS	2425	-.26	34.669	27.87			14878	525	211	308	119	799	
STD	2500	-.28	34.668	27.87	21.39	.652	14889						
STD	2750	-.36	34.665	27.87	20.01	.704	14929						
OBS	2922	-.40	34.664	27.88			14956	514	210	301	112	798	
STD	3000	-.41	34.664	27.88	19.54	.753	14969						
STD	3250	-.43	34.664	27.88	18.63	.801	15011						
OBS	3426	-.43	34.664	27.88			15042	585	211	300	109	798	
STD	3500	-.43	34.664	27.88	18.63	.847	15054						
STD	3750	-.43	34.666	27.88	17.42	.892	15097						
OBS	3817	-.43	34.666	27.88			15110	585	210	294	107	799	
STD	4000	-.42	34.665	27.88	17.30	.936	15141						
OBS	4239	-.40	34.663	27.87			15185	585	215	295	108	797	
STD	4500	-.38	34.662	27.87	17.60	1.023	15231						
OBS	4638	-.37	34.662	27.87			15256	596	212	294	108	794	
OBS	4931	-.33	34.663	27.87			15310	596	211	294	107	795	
STD	5000	-.32	34.662	27.87	18.17	1.113	15322						
OBS	5251	-.27	34.653	27.86			15370	637				793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	287	15 APR 1964	2057	6021S	4740W	5199	520	7	24				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	7	-3.0	-5.3	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
ORS	0	-0.20	34.267	27.55			14474	772	196	281	76	801	
STD	0	-0.20	34.267	27.55	55.28	0.000	14474						
STD	10	-0.17	34.256	27.54	56.18	.006	14477						
OBS	19	-0.13	34.253	27.53			14480	766	200	273	74	802	
STD	20	-0.12	34.254	27.53	56.57	.011	14480						
STD	30	-0.06	34.255	27.53	56.73	.017	14485						
ORS	40	0.00	34.267	27.54			14489	766	199	269	77	802	9
STD	50	.02	34.298	27.56	53.73	.028	14492						
OBS	61	.03	34.335	27.59			14495	752	200	268	84	802	
STD	75	.06	34.355	27.60	49.78	.041	14499						
OBS	84	.08	34.364	27.61			14501	754	204	266	84	802	
STD	100	.12	34.387	27.63	47.37	.053	14506						
OBS	126	.16	34.425	27.65			14513	713	205	270	85	802	
STD	150	.16	34.460	27.68	41.93	.075	14517						
OBS	170	.15	34.487	27.71			14520	660	207	290	92	801	
STD	200	.13	34.510	27.73	37.92	.095	14525						
STD	250	.10	34.535	27.75	35.89	.114	14532						
OBS	262	.09	34.538	27.75			14533	620	210	292	93	800	
STD	300	.11	34.553	27.76	34.63	.131	14540						
STD	400	.17	34.583	27.78	32.92	.165	14560						
OBS	445	.21	34.593	27.79			14569	520	208	311	97	796	
STD	500	.21	34.606	27.80	30.77	.197	14578						
STD	600	.18	34.626	27.81	29.69	.227	14594						
OBS	683	.15	34.637	27.83			14606	538	205	311	100	792	
STD	700	.15	34.638	27.83	28.18	.256	14609						
STD	800	.12	34.641	27.83	27.56	.284	14624						
STD	900	.10	34.643	27.83	27.23	.311	14639						
ORS	923	0.00	34.643	0.00			0	544	223	312	104	793	
STD	1000	.08	34.650	27.84	26.62	.338	14655						
OBS	1163	.04	34.664	27.85			14664	538	217	306	107	794	
STD	1250	.01	34.666	27.86	24.23	.402	14693						
OBS	1404	-0.03	34.666	27.86			14701	532	219	307	110	793	
STD	1500	-0.04	34.666	27.86	23.93	.462	14733						
OBS	1684	-0.05	34.667	27.86			14747	538	219	307	108	795	
STD	1750	-0.06	34.667	27.86	23.24	.521	14773						
OBS	1938	-0.08	34.668	27.86			14788	553	213	312	109	795	
STD	2000	-0.09	34.668	27.86	23.26	.579	14814						
OBS	2192	-0.11	34.669	27.87			14829	544	213	306	110	794	
STD	2250	-0.12	34.669	27.87	22.60	.637	14855						
STD	2500	-0.14	34.670	27.87	22.88	.693	14896						
OBS	2604	-0.14	34.670	27.87			14898	549	216	317	109	794	
STD	2750	-0.13	34.669	27.87	22.33	.750	14939						
STD	3000	-0.12	34.667	27.86	22.81	.806	14982						
OBS	3002	-0.12	34.667	27.86			14966	549	218	313	107	790	
STD	3250	-0.11	34.667	27.86	22.33	.863	15025						
OBS	3404	-0.11	34.668	27.86			15036	552	216	314	109	792	
STD	3500	-0.10	34.668	27.86	22.72	.919	15069						
STD	3750	-0.08	34.669	27.86	22.07	.975	15113						
OBS	3814	-0.07	34.669	27.86			15109	555	216	313	109	788	
STD	4000	-0.07	34.667	27.86	22.09	1.030	15157						
OBS	4224	-0.07	34.666	27.86			15180	549	214	314	109	791	
STD	4500	-0.04	34.670	27.86	22.34	1.141	15246						
OBS	4626	-0.02	34.671	27.86			15253	549	217	315	108	790	
STD	5000	.03	34.666	27.86	23.49	1.256	15337						
OBS	5032	.03	34.666	27.86			15327	549	214	320	109	789	
OBS	5338	.06	34.670	27.86			15383	555	217	321	109	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	288	16APR1964	625	6049S	4925W	2659	520	9	19				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		115	8	-2.0	-2.5	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.31	34.415	27.67			14471	741	199	298	90	813	
STD	0	-.31	34.415	27.67	43.48	0.000	14471						
STD	10	-.29	34.406	27.66	44.18	.004	14473						
OBS	13	-.29	34.405	27.66			14474	737	201	296	89	802	
STD	20	-.29	34.405	27.66	44.25	.009	14475						
OBS	26	-.29	34.406	27.66			14476	735	194	298	89	803	
STD	30	-.29	34.405	27.66	44.18	.013	14476						
OBS	42	-.29	34.403	27.66			14478	747	190	297	88	803	
STD	50	-.29	34.402	27.66	44.33	.022	14479						
OBS	60	-.29	34.402	27.66			14481	747	195	300	89	803	
STD	75	-.28	34.400	27.66	44.67	.033	14484						
OBS	94	-.27	34.408	27.66			14488	729	188	302	89	803	
STD	100	-.27	34.418	27.67	43.01	.044	14489						
OBS	131	-.28	34.480	27.72			14494	648	199	302	94	802	
STD	150	-.28	34.496	27.73	36.92	.064	14498						
STD	200	-.26	34.521	27.75	35.06	.082	14507						
OBS	210	-.26	34.522	27.75			14508	594	205	323	98	801	
STD	250	-.28	34.550	27.78	32.66	.099	14514						
OBS	294	-.30	34.581	27.80			14521	575	208	324	101	799	
STD	300	-.30	34.584	27.81	29.97	.115	14522						
STD	400	-.23	34.628	27.84	27.12	.143	14542						
OBS	472	-.13	34.648	27.85			14559	540	209	325	104	795	
STD	500	-.07	34.654	27.85	25.44	.170	14566						
STD	600	.12	34.667	27.85	26.11	.195	14591						
OBS	654	.20	34.670	27.85			14604	499	219	328	113	794	
STD	700	.20	34.672	27.85	26.00	.221	14612						
STD	800	.15	34.673	27.85	25.38	.247	14626						
OBS	837	.12	34.673	27.86			14630	499	220	334	118	793	
STD	900	.08	34.673	27.86	24.88	.272	14639						
STD	1000	.02	34.671	27.86	24.61	.297	14653						
OBS	1072	-.02	34.670	27.86			14663	511	220	339	119	793	
OBS	1180	-.08	34.669	27.86			14678	523	221	339	116	792	
STD	1250	-.09	34.669	27.86	23.13	.357	14689						
OBS	1432	-.11	34.670	27.87			14718	529	216	337	120	791	
STD	1500	-.13	34.671	27.87	22.85	.414	14729						
OBS	1736	-.22	34.671	27.87			14764	586	219	330	119	795	
STD	1750	-.23	34.671	27.87	21.40	.469	14766						
STD	2000	-.36	34.666	27.87	20.76	.522	14802						
OBS	2038	-.38	34.665	27.88			14807	557	218	334	112	796	
STD	2250	-.44	34.662	27.88	19.76	.573	14840						
OBS	2342	-.47	34.661	27.88			14854	514	217	331	107	795	
STD	2500	-.53	34.661	27.88	19.27	.622	14878						
OBS	2646	-.60	34.661	27.88			14900	586	215	328	106	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	289	17APR1964	2020	6032S	5423W	3008	521	4	20				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	3	-1.7	-2.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Δ Δ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.15	33.826	27.17			14484	766	211	258	44	804	
STD	0	.15	33.826	27.17	90.59	0.000	14484						
STD	10	.15	33.826	27.17	90.50	.009	14485						
STD	20	.14	33.827	27.17	90.41	.018	14486						
OBS	25	.14	33.827	27.17			14487	764	201	253	42	805	
STD	30	.14	33.830	27.18	90.15	.027	14488						
OBS	49	-.08	33.839	27.19			14481	758	206	256	47	805	1
STD	50	.14	33.842	27.19	89.15	.045	14491						
OBS	74	.14	33.931	27.26			14497	746	208	264	59	804	
STD	75	.14	33.935	27.26	82.18	.066	14497						
OBS	100	.20	34.059	27.36			14505	698	213	275	68	804	
STD	100	.20	34.059	27.36	72.76	.086	14505						
OBS	149	.36	34.339	27.57			14524	547	229	296	74	796	
STD	150	.38	34.344	27.58	52.02	.117	14525						
OBS	198	1.20	34.518	27.67			14573	486	243	314	78	792	
STD	200	1.22	34.523	27.67	43.84	.141	14574						
STD	250	1.56	34.614	27.72	39.65	.162	14599						
OBS	299	1.65	34.653	27.74			14611	422	248	317	84	791	
STD	300	1.65	34.654	27.74	37.56	.181	14611						
OBS	398	1.70	34.683	27.76			14630	422	233	318	85	791	
STD	400	1.70	34.684	27.76	36.29	.218	14630						
STD	500	1.68	34.711	27.79	33.91	.253	14646						
OBS	600	1.67	34.732	27.80			14662	434	230	304	88	791	
STD	600	1.67	34.732	27.80	33.10	.287	14662						
STD	700	1.57	34.745	27.82	31.33	.319	14674						
OBS	800	1.46	34.751	27.83			14686	445	228	301	97	792	
STD	800	1.46	34.751	27.83	30.07	.350	14686						
STD	900	1.37	34.746	27.84	29.91	.380	14698						
OBS	1000	1.28	34.739	27.84			14710	457	223	302	101	792	
STD	1000	1.28	34.739	27.84	30.05	.410	14710						
STD	1250	1.01	34.739	27.86	27.63	.482	14740						
OBS	1254	1.01	34.739	27.86			14740	463	229	303	108	791	
OBS	1434	.73	34.719	27.86			14757	480	228	307	112	791	
STD	1500	.68	34.717	27.86	26.77	.550	14766						
OBS	1674	.58	34.716	27.86			14790	486	228	312	120	791	
STD	1750	.54	34.715	27.87	25.52	.615	14801						
OBS	1924	.44	34.710	27.87			14826	486	228	314	120	791	
STD	2000	.40	34.707	27.87	25.41	.679	14836						
OBS	2217	.29	34.697	27.87			14868	507	227	314	120	790	
STD	2250	.28	34.696	27.87	24.85	.742	14873						
STD	2500	.18	34.690	27.87	24.90	.804	14910						
OBS	2514	.17	34.690	27.87			14913	509	225	303	110	790	
STD	2750	.08	34.684	27.87	23.68	.864	14948						
OBS	2762	.07	34.684	27.87			14951	526	219	304	111	790	
STD	3000	-.07	34.672	27.87	22.98	.923	14984						
OBS	3008	-.08	34.672	27.87			14986	561	222	316	111	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 12	290	20APR1964	747	5851S	6324W	3952	486	83	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		260	7	4.2	2.7	0	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.85	33.819	27.13			14515	775	216	264	23	807	
STD	0	.85	33.819	27.13	94.87	0.000	14515						
STD	10	.83	33.811	27.12	95.34	.010	14516						
STD	20	.81	33.805	27.12	95.66	.019	14516						
OBS	24	.80	33.803	27.12			14517	766	206	254	22	812	
STD	30	.79	33.803	27.12	95.71	.029	14517						
OBS	50	.76	33.801	27.12			14519	764	218	250	23	812	
STD	50	.76	33.801	27.12	95.60	.048	14519						
STD	75	.17	33.846	27.19	89.08	.071	14497						
ORS	100	-.43	33.922	27.28			14474	769	233	276	32	809	
STD	100	-.43	33.922	27.28	80.14	.092	14474						
OBS	150	-.16	34.120	27.43			14498	677	250	322	41	803	
STD	150	-.16	34.120	27.43	66.15	.129	14498						
OBS	200	.81	34.235	27.46			14552	602	273	326	47	794	
STD	200	.81	34.235	27.46	62.89	.161	14552						
OBS	250	1.20	34.329	27.51			14578	533	265	340	54	801	
STD	250	1.20	34.329	27.51	58.50	.191	14578						
ORS	300	1.74	34.319	27.47			14610	474	241	341	49	801	2
STD	300	1.74	34.396	27.53	57.68	.220	14611						
OBS	400	1.95	34.499	27.60			14638	440	245	339	71	798	
STD	400	1.95	34.499	27.60	52.24	.275	14638						
OBS	500	2.02	34.604	27.67			14659	417	254	341	73	790	
STD	500	2.02	34.604	27.67	44.78	.324	14659						
OBS	600	2.06	34.640	27.70			14678	411	260	334	75	791	
STD	600	2.06	34.640	27.70	43.43	.368	14678						
STD	700	2.05	34.664	27.72	41.63	.410	14694						
OBS	800	1.98	34.677	27.74			14707	422	287	332	80	800	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 12	291	20APR1964	1349	5834S	6332W	3753	486	83	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		260	6	4.7	2.0	0	7						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.07	34.010	27.11			14616	733	194	243	11	807	
STD	0	3.07	34.010	27.11	96.43	0.000	14616						
STD	10	3.04	34.004	27.11	96.69	.010	14616						
STD	20	3.03	34.000	27.11	96.86	.019	14617						
OBS	25	3.02	33.999	27.11			14617	727	200	241	10	808	
STD	30	3.02	33.999	27.11	96.94	.029	14618						
OBS	50	3.03	34.002	27.11			14622	721	201	241	12	815	
STD	50	3.03	34.002	27.11	96.88	.048	14622						
OBS	73	3.04	34.000	27.11			14626	721	206	241	12	815	
STD	75	3.02	34.006	27.11	96.87	.073	14626						
STD	100	2.76	34.085	27.20	88.49	.096	14619						
OBS	122	2.44	34.161	27.29			14610	670	208	289	24	809	
STD	150	2.10	34.168	27.32	77.03	.137	14600						
OBS	170	1.92	34.161	27.33			14595	664	226	296	26	808	
STD	200	1.85	34.179	27.35	74.43	.175	14597						
OBS	219	1.88	34.195	27.36			14602	635	243	302	32	805	
STD	250	2.01	34.222	27.37	72.70	.212	14613						
OBS	268	2.10	34.238	27.38			14620	583	250	319	38	801	
STD	300	2.13	34.264	27.39	70.73	.248	14627						
OBS	367	2.12	34.319	27.44			14638	525	252	322	48	801	
STD	400	2.17	34.349	27.46	65.41	.316	14646						
OBS	466	2.29	34.407	27.50			14663	467	259	328	54	801	
STD	500	2.33	34.433	27.51	60.36	.379	14670						
OBS	565	2.37	34.476	27.54			14683	433	263	336	63	800	
STD	600	2.38	34.497	27.56	57.03	.437	14690						
STD	700	2.34	34.548	27.60	53.05	.492	14705						
OBS	764	2.27	34.574	27.63			14713	410	271	342	72	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	292	19MAY1964	1522	5457S	8955W	4940	488	49	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		0	4	5.4	4.4	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	6.15	34.168	26.90			14746	676	152	203	5	791	
STD	0	6.15	34.168	26.90	116.65	0.000	14746						
STD	10	6.15	34.172	26.90	116.50	.012	14748						
STD	20	6.16	34.174	26.90	116.53	.023	14750						
OBS	22	6.16	34.174	26.90			14750	670	148	194	5	811	
STD	30	6.16	34.172	26.90	116.86	.035	14751						
OBS	44	6.17	34.168	26.90			14754	679	146	202	7	815	
STD	50	6.17	34.169	26.90	117.32	.058	14755						
OBS	66	6.16	34.172	26.90			14757	658	138	192	7	811	
STD	75	6.16	34.169	26.90	117.87	.088	14758						
OBS	88	6.17	34.163	26.89			14761	677	137	199	8	811	
STD	100	6.19	34.160	26.89	118.84	.117	14763						
OBS	132	6.13	34.173	26.90			14766	674	144	200	7	816	
STD	150	5.93	34.208	26.96	112.62	.175	14761						
OBS	177	5.59	34.264	27.04			14753	653	149	226	12	812	
STD	200	5.50	34.273	27.06	103.23	.229	14753						
STD	250	5.42	34.265	27.06	103.63	.281	14758						
OBS	266	5.44	34.254	27.05			14761	657	149	231	13	810	
STD	300	5.36	34.255	27.06	104.21	.333	14763						
OBS	356	5.22	34.257	27.08			14767	652	161	239	11	807	
STD	400	5.14	34.251	27.09	103.32	.437	14771						
STD	500	4.96	34.235	27.10	102.82	.540	14779						
OBS	543	4.88	34.227	27.10			14783	651	163	246	12	807	
STD	600	4.72	34.221	27.11	102.50	.642	14785						
STD	700	4.40	34.219	27.14	99.58	.743	14788						
OBS	732	4.29	34.220	27.16			14789	661	195	279	18	808	
STD	800	4.06	34.229	27.19	95.49	.841	14790						
STD	900	3.72	34.252	27.24	90.80	.934	14793						
OBS	926	3.64	34.259	27.26			14794	525	222	322	35	799	
STD	1000	3.44	34.285	27.30	85.87	1.022	14797						
STD	1250	2.90	34.390	27.43	73.07	1.221	14817						
OBS	1319	2.79	34.423	27.47			14824		238	356	58	792	
STD	1500	2.57	34.500	27.55	62.92	1.391	14846						
OBS	1573	2.51	34.530	27.58			14856	399	231	354	68	789	
STD	1750	2.40	34.591	27.63	55.21	1.539	14881						
OBS	1827	2.36	34.614	27.66			14893	397	234	347	80	791	
STD	2000	2.26	34.664	27.70	49.83	1.670	14917						
OBS	2088	2.20	34.683	27.72			14930	402	230	339	86	789	
STD	2250	2.08	34.690	27.74	46.78	1.791	14952						
OBS	2340	2.02	34.690	27.74			14965	410	230	342	94	789	
STD	2500	1.92	34.702	27.76	45.53	1.906	14987						
OBS	2603	1.86	34.710	27.77			15003	427	226	335	93	791	
STD	2750	1.77	34.714	27.78	43.06	2.017	15023						
STD	3000	1.60	34.714	27.79	41.97	2.123	15058						
OBS	3118	1.52	34.715	27.80			15076	444	225	333	104	794	
STD	3250	1.42	34.715	27.81	39.77	2.225	15093						
STD	3500	1.24	34.713	27.82	38.24	2.323	15128						
OBS	3630	1.14	34.712	27.83			15147	464	223	328	114	793	
STD	3750	1.04	34.710	27.83	35.22	2.415	15163						
STD	4000	.85	34.706	27.84	33.01	2.500	15197						
OBS	4147	.75	34.703	27.84			15220	482	219	323	122	792	
STD	4500	.65	34.700	27.85	31.03	2.660	15276						
OBS	4662	.64	0.000	0.00			0	490	216	320	119	792	
OBS	4937	.66	34.701	27.85			15355	499	223	327	128	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	293	20MAY1964	1604	5605S	9017W	5179	489	60	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	4	5.1	4.0		0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	5.11	34.132	27.00			14703	693	158	210	9	799	
STD	0	5.11	34.132	27.00	107.29	0.000	14703						
STD	10	5.10	34.131	27.00	107.30	.011	14704						
STD	20	5.09	34.132	27.00	107.29	.021	14706						
OBS	29	5.09	34.130	27.00			14707	692	149	206	7	805	
STD	30	5.09	34.130	27.00	107.52	.032	14707						
STD	50	5.11	34.122	26.99	108.43	.054	14711						
OBS	56	5.11	34.120	26.99			14712	697	150	208	8	812	
STD	75	5.07	34.118	26.99	108.86	.081	14713						
OBS	81	5.06	34.117	26.99			14714	694	149	208	9	812	
STD	100	5.08	34.112	26.98	109.33	.108	14718						
OBS	106	5.09	34.111	26.98			14719	693	147	216	9	810	
STD	150	5.10	34.109	26.98	110.34	.163	14727						
OBS	160	5.10	34.113	26.98			14728	689	143	226	10	809	
STD	200	5.12	34.176	27.03	106.12	.217	14736						
OBS	214	5.12	34.199	27.05			14739	650	149	232	11	809	
STD	250	4.98	34.190	27.06	103.95	.270	14739						
STD	300	4.72	34.185	27.08	102.01	.321	14736						
OBS	318	4.61	34.173	27.09			14734	651	163	241	13	809	
STD	400	4.32	34.186	27.13	98.77	.422	14736						
OBS	424	4.25	34.192	27.14			14737	622	171	263	15	806	
STD	500	4.02	34.204	27.17	94.34	.518	14739						
STD	600	3.71	34.222	27.22	91.01	.611	14743						
OBS	631	3.62	34.229	27.23			14744	560	193	293	25	803	
STD	700	3.37	34.247	27.27	85.93	.699	14745						
STD	800	3.05	34.282	27.33	80.42	.783	14748						
OBS	832	2.96	34.296	27.35			14750	514	218	327	36	800	
STD	900	2.86	34.336	27.39	74.99	.860	14757						
STD	1000	2.75	34.396	27.45	70.07	.933	14770						
OBS	1027	2.73	34.413	27.46			14773	449	226	339	53	797	
STD	1250	2.49	34.504	27.56	60.06	1.095	14801						
OBS	1358	2.40	34.540	27.59			14815	409	240	352	70	792	
STD	1500	2.37	34.595	27.64	53.62	1.238	14838						
OBS	1616	2.35	34.634	27.67			14857	398	242	344	77	792	
STD	1750	2.26	34.663	27.70	48.30	1.365	14876						
OBS	1864	2.18	34.681	27.72			14892	404	239	335	84	790	
STD	2000	2.10	34.699	27.74	45.30	1.482	14911						
OBS	2112	2.03	34.712	27.76			14927	411	236	331	89	790	
STD	2250	1.94	34.729	27.78	42.19	1.591	14947						
OBS	2359	1.87	34.737	27.79			14962	423	233	329	94	791	
STD	2500	1.76	34.731	27.80	41.31	1.696	14981						
OBS	2610	1.67	34.723	27.80			14996	434	236	323	100	794	
STD	2750	1.58	34.722	27.80	39.88	1.797	15015						
STD	3000	1.42	34.724	27.82	38.66	1.895	15051						
OBS	3108	1.35	34.726	27.82			15067	454	232	330	107	795	
STD	3250	1.26	34.723	27.83	36.76	1.990	15086						
STD	3500	1.09	34.718	27.83	35.67	2.080	15122						
OBS	3596	1.02	34.716	27.84			15136	467	234	327	115	794	
STD	3750	.90	34.714	27.84	32.84	2.166	15157						
STD	4000	.72	34.712	27.85	30.67	2.245	15192						
OBS	4082	.67	34.711	27.86			15205	484	230	331	126	793	
STD	4500	.57	34.707	27.86	29.36	2.395	15273						
OBS	4584	.57	0.000	0.00			0	487	232	321	124	794	
STD	5000	.59	34.702	27.85	30.55	2.545	15362						
OBS	5084	.61	34.709	27.86			15379	490	226	327	127	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	294	21MAY1964	2332	5701S	8947W	5172	488	79	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			165	6	2.1	-4.0	0	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Δ Δ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	5.27	34.138	26.98	108.62	0.000	14710						
OBS	2	5.27	34.138	26.98			14710	643	148	216	4	804	
STD	10	5.28	34.130	26.98	109.42	.011	14712						
STD	20	5.29	34.123	26.97	110.13	.022	14713						
OBS	27	5.29	34.120	26.97			14714	643	149	210	3	811	
STD	30	5.29	34.120	26.97	110.43	.033	14715						
STD	50	5.29	34.125	26.97	110.26	.055	14719						
OBS	54	5.29	34.127	26.97			14719	691	153	211	5	817	
OBS	75	5.26	34.124	26.97			14721	691	148	212	5	815	
STD	75	5.26	34.124	26.97	110.50	.083	14721						
STD	100	5.28	34.117	26.96	111.33	.110	14726						
OBS	106	5.29	34.115	26.96			14727	689	148	217	5	815	
STD	150	5.19	34.121	26.98	110.41	.166	14730						
OBS	158	5.17	34.126	26.99			14731	681	148	218	5	816	
STD	200	5.20	34.182	27.03	106.54	.220	14740						
OBS	213	5.22	34.200	27.04			14743	649	159	232	7	811	
STD	250	5.28	34.197	27.03	106.93	.273	14751						
STD	300	5.32	34.199	27.03	107.92	.327	14761						
OBS	318	5.33	34.191	27.02			14764	645	163	240	9	809	
STD	400	5.00	34.185	27.05	106.52	.434	14764						
OBS	426	0.00	34.185	0.00			0	628	173	265	11	809	
STD	500	4.51	34.195	27.11	100.59	.538	14760						
STD	600	3.93	34.221	27.20	93.56	.635	14752						
OBS	624	3.78	34.229	27.22			14750	558	202	301	17	801	
STD	700	3.58	34.262	27.26	87.11	.725	14754						
STD	800	3.36	34.307	27.32	81.88	.810	14762						
OBS	816	3.33	34.315	27.33			14763	504	221	328	33	799	
STD	900	3.09	34.339	27.37	77.29	.889	14767						
OBS	985	2.88	34.372	27.42			14772	462	228	346	40	797	
STD	1000	2.85	34.382	27.43	72.26	.964	14774						
OBS	1020	2.82	34.395	27.44			14776	448	237	340	44	798	
OBS	1242	2.59	34.481	27.53			14803	414	231	342	56	797	
STD	1250	2.58	34.484	27.53	62.57	1.133	14805						
OBS	1500	2.41	34.580	27.62			14840	399	234	352	68	793	
STD	1500	2.41	34.580	27.62	55.18	1.280	14840						
OBS	1750	2.28	34.651	27.69			14877	413	227	326	76	791	
STD	1750	2.28	34.651	27.69	49.36	1.410	14877						
STD	2000	2.14	34.692	27.74	46.42	1.530	14913						
OBS	2003	2.14	34.692	27.74			14913	412	224	332	79	791	
STD	2250	1.96	34.725	27.78	42.66	1.642	14947						
OBS	2261	1.95	34.726	27.78			14949	426	218	330	82	795	
STD	2500	1.77	34.724	27.79	41.97	1.747	14981						
STD	2750	1.57	34.723	27.80	39.81	1.850	15015						
OBS	2764	1.56	34.722	27.80			15017	450	212	327	94	794	
STD	3000	1.33	34.722	27.82	37.62	1.946	15047						
STD	3250	1.10	34.722	27.84	34.67	2.037	15079						
OBS	3342	1.02	34.722	27.84			15092	456	216	326	101	794	
STD	3500	.93	34.719	27.84	33.46	2.122	15115						
STD	3750	.82	34.713	27.85	31.82	2.203	15153						
OBS	3868	.78	34.710	27.85			15172	475	212	328	114	792	
STD	4000	.71	34.707	27.85	30.86	2.282	15192						
OBS	4382	.56	0.000	0.00			0	486	211	329	115	792	
STD	4500	.54	34.696	27.85	29.64	2.433	15271						
OBS	4943	.58	34.703	27.85			15352	489	214	327	122	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	295	23MAY1964	1117	5753S	9045W	4706	489	70	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			185	4	2.1	-1.5	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	5.41	34.148	26.97	109.45	0.000	14716						
OBS	2	5.41	34.148	26.97			14716	689	152	199	4	807	
STD	10	5.42	34.145	26.97	109.85	.011	14718						
STD	20	5.42	34.142	26.97	110.15	.022	14719						
OBS	29	5.42	34.140	26.97			14720	688	150	212	2	811	
STD	30	5.42	34.140	26.97	110.44	.033	14721						
STD	50	5.39	34.137	26.97	110.49	.055	14723						
OBS	56	5.38	34.137	26.97			14723	690	156	217	2	816	
STD	75	5.35	34.135	26.97	110.67	.083	14725						
OBS	81	5.33	34.134	26.97			14725	697	155	217	1	816	
STD	100	5.22	34.129	26.98	109.66	.110	14724						
OBS	106	5.18	34.127	26.98			14723	702	156	222	2	815	
STD	150	5.05	34.118	26.99	109.11	.165	14725						
OBS	159	5.04	34.119	26.99			14725	696	154	217	4	815	
STD	200	5.04	34.166	27.03	105.95	.219	14733						
OBS	213	5.04	34.182	27.04			14735	657	172	240	007	811	
STD	250	4.90	34.179	27.06	103.91	.271	14735						
STD	300	4.65	34.180	27.09	101.63	.323	14733						
OBS	317	4.55	34.173	27.09			14731	655	181	263	8	808	
STD	400	4.24	34.181	27.13	98.16	.422	14732						
OBS	422	0.00	34.185	0.00			0	633	190	267	15	808	
STD	500	3.90	34.203	27.18	93.18	.518	14735						
STD	600	3.62	34.233	27.24	89.22	.609	14739						
OBS	630	3.54	34.243	27.25			14741	567	215	296	23	807	
STD	700	3.34	34.267	27.29	84.09	.696	14744						
STD	800	3.08	34.307	27.35	78.97	.778	14750						
OBS	833	3.01	34.321	27.36			14752	503	235	321	40	803	
STD	900	2.90	34.355	27.40	73.99	.854	14759						
STD	1000	2.77	34.408	27.46	69.40	.926	14771						
OBS	1029	2.74	34.424	27.47			14774	443	242	345	52	797	
STD	1250	2.53	34.525	27.57	58.97	1.086	14803						
OBS	1319	2.47	34.551	27.60			14812	405	251	341	69	796	
STD	1500	2.29	34.600	27.65	52.40	1.225	14835						
OBS	1579	2.23	34.618	27.67			14846	419	241	338	72	796	
STD	1750	2.18	34.667	27.71	46.96	1.350	14872						
OBS	1829	2.16	34.687	27.73			14885	420	233	334	80	795	
STD	2000	2.08	34.711	27.76	44.28	1.464	14911						
OBS	2079	2.04	34.718	27.76			14922	423	230	334	84	794	
STD	2250	1.92	34.729	27.78	41.90	1.571	14946						
OBS	2329	1.86	34.732	27.79			14956	438	229	337	90	795	
STD	2500	1.72	34.738	27.81	40.25	1.674	14979						
OBS	2584	1.65	34.740	27.81			14990	445	225	306	94	797	
STD	2750	1.53	34.737	27.82	38.25	1.772	15013						
OBS	2839	1.47	34.734	27.82			15026	464	228	330	99	794	
STD	3000	1.37	34.733	27.83	37.33	1.867	15049						
OBS	3089	1.31	34.733	27.83			15061	479	233	329	103	793	
STD	3250	1.21	34.729	27.84	35.68	1.958	15084						
STD	3500	1.05	34.723	27.84	34.81	2.046	15120						
OBS	3589	.99	34.720	27.84			15133	472	227	329	114	791	
STD	3750	.87	34.716	27.85	32.24	2.130	15155						
STD	4000	.69	34.709	27.85	30.43	2.208	15191						
OBS	4089	.64	0.000	0.00			0	492	229	328	113	791	
STD	4500	.54	34.696	27.85	29.54	2.358	15271						
OBS	4699	.55	34.712	27.86			15308	538	230	343	129	790	4

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	296	24MAY1964	2126	5843S	9100W	4735	489	81	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			335	4	1.2	0.0	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	3.58	34.047	27.09	98.19	0.000	14638						
OBS	1	3.58	34.047	27.09			14638	711	161	252	5	807	
STD	10	3.53	34.036	27.09	98.60	.010	14637						
STD	20	3.48	34.028	27.09	98.78	.020	14637						
OBS	23	3.46	34.026	27.09			14636	713	160	242	3	810	
STD	30	3.41	34.023	27.09	98.52	.030	14635						
OBS	45	3.32	34.021	27.10			14634	721	162	241	5	817	
STD	50	3.33	34.021	27.10	98.13	.049	14635						
OBS	69	3.40	34.021	27.09			14641	718	168	231	5	818	
STD	75	3.40	34.021	27.09	99.10	.074	14642						
OBS	92	3.39	34.023	27.09			14644	709	170	243	4	817	
STD	100	3.40	34.021	27.09	99.03	.099	14646						
OBS	137	3.36	34.025	27.10			14650	715	170	255	2	815	
STD	150	3.23	34.043	27.12	96.05	.147	14647						
OBS	183	2.85	34.098	27.20			14637	668	178	275	14	814	
STD	200	2.75	34.116	27.22	86.64	.193	14636						
STD	250	2.55	34.154	27.27	82.23	.235	14635						
OBS	276	2.49	34.167	27.29			14637	633	187	292	24	809	
STD	300	2.38	34.179	27.31	79.28	.276	14637						
OBS	369	2.11	34.210	27.35			14636	625	200	305	33	807	
STD	400	2.09	34.232	27.37	73.53	.352	14641						
STD	500	2.13	34.305	27.43	68.19	.423	14660						
OBS	561	2.23	34.352	27.46			14675	513	215	328	40	804	
STD	600	2.25	34.376	27.47	64.85	.489	14682						
STD	700	2.27	34.435	27.52	60.91	.552	14700						
OBS	753	2.28	34.463	27.54			14710	444	231	339	57	803	
STD	800	2.28	34.488	27.56	57.25	.611	14718						
STD	900	2.26	34.538	27.60	53.84	.667	14734						
OBS	947	2.25	34.560	27.62			14741	413	239	343	65	799	
STD	1000	2.24	34.583	27.64	50.96	.719	14750						
STD	1250	2.18	34.665	27.71	44.85	.839	14790						
OBS	1352	2.15	34.688	27.73			14806	409	244	346	74	795	
STD	1500	2.08	34.708	27.75	42.01	.948	14827						
OBS	1608	2.01	34.716	27.77			14842	421	242	328	75	795	
STD	1750	1.90	34.724	27.78	39.58	1.050	14861						
OBS	1865	1.81	34.728	27.79			14877	428	239	325	87	793	
STD	2000	1.71	34.730	27.80	38.31	1.147	14895						
OBS	2127	1.62	34.732	27.81			14912	436	232	328	95	794	
STD	2250	1.57	34.738	27.82	36.87	1.241	14931						
OBS	2378	1.52	0.000	0.00			0	444	228	324	95	795	
STD	2500	1.44	34.745	27.83	36.10	1.332	14967						
OBS	2636	1.33	34.747	27.84			14986	458	226	313	96	794	
STD	2750	1.25	34.741	27.84	34.24	1.420	15001						
OBS	2880	1.16	34.733	27.84			15019	459	231	321	103	795	
STD	3000	1.09	34.731	27.84	33.77	1.505	15037						
OBS	3126	1.02	34.730	27.85			15055	466	227	326	106	795	
STD	3250	.93	34.727	27.85	31.86	1.587	15072						
STD	3500	.74	34.722	27.86	30.50	1.665	15107						
OBS	3609	.67	34.720	27.86			15123	480	227	327	115	793	
STD	3750	.61	34.717	27.86	28.38	1.739	15144						
STD	4000	.53	34.712	27.86	27.78	1.809	15184						
OBS	4110	.51	0.000	0.00			0	496	230	328	114	792	
STD	4500	.48	34.702	27.86	28.16	1.949	15269						
OBS	4788	.50	34.714	27.87			15322	490	233	328	123	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 13	297	25MAY1964	1521	5855S	9025W	4744	489	80	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		0	7	4.9	3.6	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	4.18	34.088	27.06			14664	708	166	226	4	806	
STD	0	4.18	34.088	27.06	100.85	0.000	14664						
STD	10	4.17	34.082	27.06	101.26	.010	14665						
STD	20	4.16	34.078	27.06	101.53	.020	14666						
OBS	25	4.15	34.076	27.06			14667	704	168	218	1	810	
STD	30	4.15	34.075	27.06	101.70	.030	14667						
OBS	47	4.12	34.074	27.06			14669	705	174	223	5	811	
STD	50	4.10	34.074	27.06	101.44	.051	14668						
OBS	73	3.90	34.070	27.08			14664	705	174	235	4	813	
STD	75	3.89	34.070	27.08	100.08	.076	14663						
OBS	98	3.80	34.069	27.09			14663	711	172	243	4	810	
STD	100	3.80	34.068	27.09	99.21	.101	14664						
OBS	145	3.79	34.064	27.09			14671	706	172	237	2	810	
STD	150	3.79	34.067	27.09	99.62	.151	14671						
OBS	195	3.75	34.100	27.12			14677	667	185	252	10	810	
STD	200	3.73	34.103	27.12	96.66	.200	14677						
STD	250	3.46	34.129	27.17	92.50	.247	14674						
OBS	297	3.18	34.151	27.21			14670	674	209	290	19	804	
STD	300	3.17	34.153	27.22	88.39	.292	14670						
STD	400	2.97	34.203	27.27	83.52	.378	14678						
OBS	404	2.96	34.205	27.28			14679	584	210	290	25	802	
STD	500	2.66	34.236	27.33	78.15	.459	14682						
STD	600	2.39	34.270	27.38	74.12	.535	14687						
OBS	608	2.37	34.273	27.38			14687	548	223	301	33	801	
STD	700	2.30	34.325	27.43	69.37	.607	14700						
STD	800	2.30	34.388	27.48	64.93	.674	14717						
OBS	806	2.30	34.392	27.48			14718	477	233	317	51	795	
STD	900	2.30	34.446	27.53	61.03	.737	14734						
STD	1000	2.29	34.509	27.58	56.91	.796	14751						
OBS	1009	2.29	34.515	27.58			14753	432	244	319	60	792	
OBS	1078	2.32	34.567	27.62			14766	411	235	316	62	790	
STD	1250	2.30	34.626	27.67	49.03	.928	14795						
OBS	1346	2.26	34.639	27.68			14809	407	239	319	73	789	
STD	1500	2.19	34.676	27.72	45.65	1.047	14832						
OBS	1608	2.13	34.697	27.74			14847	416	237	309	76	793	
STD	1750	2.04	34.716	27.76	41.83	1.156	14867						
OBS	1872	1.96	34.726	27.78			14884	426	227	309	83	791	
STD	2000	1.85	34.731	27.79	40.04	1.258	14901						
OBS	2141	1.73	34.732	27.80			14920	434	226	294	88	790	
STD	2250	1.65	34.733	27.81	38.22	1.356	14934						
STD	2500	1.49	34.735	27.82	37.59	1.451	14969						
OBS	2661	1.40	34.735	27.83			14993	450	225	300	99	790	
STD	2750	1.35	34.736	27.83	35.97	1.543	15006						
STD	3000	1.21	34.736	27.84	35.08	1.632	15042						
OBS	3200	1.10	34.736	27.85			15072	467	224	307	105	792	
STD	3250	1.06	34.736	27.85	33.18	1.717	15078						
STD	3500	.88	34.733	27.86	31.70	1.798	15113						
OBS	3738	.72	34.729	27.87			15148	479	226	311	115	791	
STD	3750	.71	34.729	27.87	29.09	1.874	15149						
STD	4000	.61	34.726	27.87	28.01	1.946	15188						
OBS	4281	.54	0.000	0.00			0	485	231	314	111	789	
STD	4500	.51	34.719	27.87	27.54	2.084	15271						
OBS	4950	.54	34.714	27.87			15374	493	230	318	124	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	298	26MAY1964	420	5949S	8950W	5015	488	99	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			25	1	1.4	.7	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	2.97	34.027	27.13	94.29	0.000	14612						
OBS	2	2.97	34.027	27.13			14612	723	124	239	12	802	
STD	10	2.98	34.031	27.14	94.08	.009	14614						
STD	20	2.98	34.035	27.14	93.81	.019	14615						
OBS	29	2.98	34.037	27.14			14617	724	184	238	10	812	
STD	30	2.98	34.037	27.14	93.72	.028	14617						
STD	50	2.94	34.035	27.14	93.61	.047	14618						
OBS	57	2.92	34.034	27.14			14618	722	182	241	10	811	
STD	75	2.89	34.040	27.15	93.11	.070	14620						
OBS	82	2.87	34.043	27.16			14620	724	178	254	11	809	
STD	100	2.79	34.045	27.16	91.81	.093	14620						
OBS	108	2.75	34.046	27.17			14619	727	172	239	12	812	
OBS	135	2.58	34.059	27.19			14617	727	149	244	14	812	
STD	150	2.57	34.048	27.19	89.92	.139	14619						
OBS	162	2.60	34.045	27.18			14622	712	159	255	17	811	
OBS	189	2.80	34.115	27.22			14636	652	185	274	23	810	
STD	200	2.79	34.125	27.23	86.29	.183	14638						
OBS	217	2.74	34.132	27.24			14638	646	195	279	34	810	
STD	250	2.58	34.146	27.26	83.18	.225	14637						
STD	300	2.30	34.162	27.30	79.88	.266	14633						
OBS	322	2.17	34.168	27.31			14630	648	187	292	39	803	
STD	400	1.85	34.193	27.36	74.39	.343	14630						
OBS	429	1.77	34.205	27.37			14631	618	202	301	38	802	
STD	500	1.88	34.260	27.41	69.40	.415	14648						
STD	600	2.16	34.347	27.46	66.27	.483	14678						
OBS	639	2.30	34.383	27.48			14691	475	227	312	53	798	
STD	700	2.29	34.425	27.51	61.85	.547	14701						
STD	800	2.28	34.485	27.56	57.55	.607	14718						
OBS	844	2.28	34.509	27.58			14725	424	216	327	65	797	
STD	900	2.27	34.543	27.61	53.58	.662	14735						
STD	1000	2.26	34.605	27.66	49.53	.714	14752						
OBS	1047	2.28	34.603	27.65			14760	401	230	317	71	797	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 13	299	26MAY1964	843	5945S	8948W	5033	488	99	14

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
20	2	2.6	1.4	0	5

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu g-at/l$	NITR $\mu g-at/l$	SILIC $\mu g-at/l$	pH	DD
OBS	0	3.93	34.071	27.08			14653	709	118	238	9	812	
STD	0	3.93	34.071	27.08	99.69	0.000	14653						
STD	10	3.95	34.065	27.07	100.38	.010	14656						
STD	20	3.97	34.061	27.07	100.91	.020	14658						
OBS	25	3.97	34.059	27.06			14659	706	138	238	9	813	
STD	30	3.97	34.058	27.06	101.24	.030	14659						
OBS	50	3.97	34.055	27.06			14663	706	140	242	7	815	
STD	50	3.97	34.055	27.06	101.58	.050	14663						
OBS	75	3.95	34.053	27.06			14666	706	146	242	9	817	
STD	75	3.95	34.053	27.06	101.95	.076	14666						
STD	100	3.97	34.056	27.06	101.85	.101	14671						
OBS	102	3.97	34.056	27.06			14671	709	139	244	7	816	
OBS	130	3.97	34.059	27.06			14676	706	117	239	9	818	
STD	150	3.97	34.070	27.07	101.14	.152	14679						
OBS	155	3.97	34.074	27.08			14680	687	122	253	11	817	
OBS	179	4.00	34.099	27.09			14685	650	145	268	15	812	
STD	200	3.97	34.151	27.14	95.53	.201	14688						
OBS	204	3.96	34.161	27.15			14689	641	151	271	18	810	
STD	250	3.66	34.154	27.17	92.54	.248	14683						
STD	300	3.29	34.152	27.20	89.56	.294	14675						
OBS	306	3.24	34.146	27.20			14674	621	136	290	28	810	
STD	400	3.09	34.211	27.27	84.08	.381	14684						
OBS	407	3.08	34.217	27.28			14685	567	129	300	30	806	
STD	500	2.48	34.245	27.35	75.81	.461	14674						
STD	600	1.90	34.271	27.42	69.64	.533	14666						
OBS	609	1.85	34.273	27.42			14665	544	187	324	40	801	
STD	700	1.99	34.328	27.46	66.27	.601	14687						
STD	800	2.30	34.396	27.49	64.28	.667	14717						
OBS	809	2.33	34.403	27.49			14720	466	195	341	54	799	
STD	900	2.55	34.462	27.52	62.39	.730	14746						
STD	1000	2.79	34.527	27.55	60.78	.791	14773						
OBS	1010	2.33	34.526	27.59			14755	414	203	339	65	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	300	26MAY1964	1112	5939S	8945W	4417	488	99	25				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			105	03	2.3	1.2		4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.27	34.070	27.04			14667	704	155	218	4	799	
STD	0	4.27	34.070	27.04	103.11	0.000	14667						
STD	10	4.32	34.076	27.04	103.19	.010	14671						
STD	20	4.34	34.079	27.04	103.33	.021	14674						
OBS	24	4.35	34.079	27.04			14675	701	162	221	4	809	
STD	30	4.35	34.078	27.04	103.52	.031	14676						
OBS	45	4.34	34.073	27.04			14678	701	161	223	4	811	
STD	50	4.34	34.073	27.04	103.87	.052	14678						
OBS	66	4.31	34.075	27.04			14680	701	162	228	3	811	
STD	75	4.27	34.074	27.04	103.59	.078	14680						
OBS	89	4.21	34.071	27.05			14679	706	155	232	4	811	
STD	100	4.22	34.069	27.05	103.33	.104	14681						
OBS	114	4.19	34.065	27.05			14682	702	158	233	4	812	
OBS	135	3.91	34.051	27.06			14674	706	157	240	6	814	
STD	150	3.84	34.047	27.07	101.58	.155	14673						
OBS	157	3.85	34.053	27.07			14675	701	160	241	7	815	
OBS	179	4.17	34.145	27.11			14693	658	167	253	009	811	
STD	200	4.18	34.167	27.13	96.46	.204	14697						
STD	250	3.94	34.162	27.15	94.86	.252	14695						
OBS	273	3.71	34.132	27.15			14689	635	176	268	14	809	
STD	300	3.67	34.149	27.16	93.56	.299	14692						
OBS	366	3.60	34.198	27.21			14700	579	193	278	19	807	
STD	400	3.46	34.208	27.23	88.00	.390	14700						
STD	500	3.04	34.234	27.29	81.96	.475	14698						
OBS	559	2.78	34.246	27.33			14697	555	206	310	28	802	
STD	600	2.72	34.270	27.35	77.22	.555	14701						
STD	700	2.62	34.334	27.41	71.77	.629	14714						
OBS	756	2.61	34.373	27.44			14723	465	220	330	47	799	
STD	800	2.57	34.395	27.46	67.11	.698	14729						
STD	900	2.48	34.445	27.51	63.04	.764	14742						
OBS	956	2.44	34.473	27.54			14750	429	222	330	58	798	
STD	1000	2.42	34.511	27.57	58.04	.824	14757						
STD	1250	2.30	34.699	27.73	43.61	.951	14796						
OBS	1313	2.28	34.739	27.76			14806	429	221	333	71	796	
STD	1500	2.17	34.745	27.78	40.33	1.056	14832						
OBS	1565	2.13	34.737	27.77			14841	434	225	314	75	795	
STD	1750	1.99	34.735	27.78	39.81	1.156	14865						
OBS	1817	1.94	34.734	27.79			14875	445	220	306	80	797	
STD	2000	1.83	34.732	27.79	39.71	1.256	14900						
OBS	2076	1.79	34.731	27.79			14911	456	214	298	82	798	
STD	2250	1.68	34.728	27.80	38.92	1.354	14935						
OBS	2326	1.63	34.727	27.80			14946	456	212	306	88	796	
STD	2500	1.51	34.727	27.81	38.41	1.451	14970						
OBS	2585	1.45	34.726	27.82			14982	465	196	306	92	796	
STD	2750	1.33	34.719	27.82	36.85	1.545	15004						
OBS	2835	1.27	34.715	27.82			15017	470	192	307	105	796	
STD	3000	1.18	34.708	27.82	36.57	1.637	15040						
OBS	3089	1.13	0.000	0.00			0	474	200	302	100	795	
STD	3250	1.05	34.697	27.82	35.78	1.727	15077						
OBS	3340	1.00	34.703	27.83			15092	492	219	310	104	795	
STD	3500	.87	0.000	0.00	0.00	0.000	0						
OBS	3584	.81	0.000	0.00			0		211	310	104	796	
STD	3750	.68	0.000	0.00	0.00	0.000	0						
STD	4000	.48	0.000	0.00	0.00	0.000	0						
OBS	4270	.51	0.000	0.00			0		206	326	118	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	301	26MAY1964	1625	5936S	8942W	4706	488	99	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		250	5	3.2	2.4	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.58	34.074	27.01	105.97	0.000	14680						
OBS	2	4.58	34.074	27.01			14680	701	154	219	5	819	
STD	10	4.60	34.070	27.01	106.55	.011	14683						
STD	20	4.61	34.071	27.00	106.69	.021	14685						
OBS	21	4.61	34.071	27.00			14685	700	162	215	3	818	
STD	30	4.61	34.082	27.01	105.93	.032	14687						
OBS	41	4.61	34.096	27.02			14688	698	161	218	2	816	
STD	50	4.61	34.098	27.03	104.84	.053	14690						
OBS	61	4.61	34.097	27.03			14691	697	164	222	3	816	
STD	75	4.61	34.094	27.02	105.63	.079	14694						
OBS	82	4.61	34.092	27.02			14695	699	158	226	5	818	
STD	100	4.61	34.091	27.02	105.72	.106	14698						
OBS	122	4.60	34.093	27.02			14701	699	155	223	2	818	
OBS	142	4.60	34.095	27.03			14704	698	155	226	4	817	
STD	150	4.58	34.092	27.02	105.91	.159	14705						
OBS	161	4.56	34.088	27.02			14705	698	158	228	4	816	
STD	200	4.55	34.131	27.06	103.07	.211	14712						
OBS	238	4.53	34.186	27.10			14718	649	163	248	10	809	
STD	250	4.48	34.188	27.11	98.66	.261	14718						
STD	300	4.26	34.183	27.13	97.07	.310	14717						
OBS	317	4.17	34.178	27.14			14716	629	168	262	11	804	
STD	400	3.88	34.201	27.18	92.91	.405	14718						
OBS	472	3.65	34.230	27.23			14719	565	186	293	25	804	
STD	500	3.52	34.236	27.25	86.63	.495	14719						
STD	600	3.09	34.263	27.31	81.41	.579	14717						
OBS	642	2.92	34.277	27.34			14717	520	200	314	39	799	
STD	700	2.79	34.310	27.38	75.27	.657	14721						
STD	800	2.65	34.370	27.44	69.71	.730	14732						
OBS	834	2.62	34.392	27.46			14737	469	217	337	57	795	
STD	900	2.52	34.432	27.50	64.35	.797	14744						
STD	1000	2.36	34.491	27.56	58.93	.859	14754						
OBS	1099	2.45	34.500	27.56			14774	421	211	338	69	794	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	302	26MAY1964	1924	5931S	8940W	4570	488	99	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		250	4	2.5	1.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.73	34.117	27.03	104.32	0.000	14687						
OBS	2	4.73	34.117	27.03			14687	700	153	220	3	811	
STD	10	4.74	34.109	27.02	105.10	.010	14689						
STD	20	4.74	34.103	27.02	105.64	.021	14691						
STD	30	4.75	34.102	27.01	105.91	.032	14693						
OBS	31	4.75	34.101	27.01			14693	697	156	215	3	810	
STD	50	4.73	34.109	27.02	105.25	.053	14695						
OBS	54	4.72	34.112	27.03			14695	694	157	223	1	812	
STD	75	4.73	34.129	27.04	104.31	.079	14700						
OBS	82	4.74	34.132	27.04			14701	700	161	223	5	813	
STD	100	4.73	34.116	27.03	105.21	.105	14703						
OBS	105	4.73	34.111	27.02			14704	696	146	216	5	813	
STD	150	4.75	34.112	27.02	106.14	.158	14712						
OBS	156	4.75	34.116	27.03			14713	696	149	212	4	811	
STD	200	4.79	34.168	27.06	102.97	.210	14723						
OBS	205	4.79	34.174	27.07			14723	649	148	237	10	810	
STD	250	4.60	34.176	27.09	100.83	.261	14723						
STD	300	4.32	34.178	27.12	98.13	.311	14719						
OBS	310	4.25	34.178	27.13			14718	643	172	255	13	809	
STD	400	3.91	34.208	27.19	92.61	.406	14719						
OBS	418	3.85	34.216	27.20			14719	611	184	275	17	807	
STD	500	3.55	34.245	27.25	86.32	.496	14720						
STD	600	3.22	34.280	27.31	81.51	.580	14723						
OBS	618	3.16	34.286	27.32			14723	533	208	277	28	798	
STD	700	2.94	34.313	27.36	76.50	.659	14727						
STD	800	2.72	34.350	27.41	71.92	.733	14735						
OBS	820	2.68	34.358	27.42			14736	485	199	299	37	796	
STD	900	2.58	34.401	27.47	67.26	.802	14746						
STD	1000	2.49	34.456	27.52	62.88	.868	14759						
OBS	1014	2.48	34.464	27.53			14761	378	217	318	57	791	4
STD	1250	2.35	34.566	27.62	53.96	1.014	14796						
OBS	1339	2.31	34.597	27.65			14809	407	215	335	74	790	
STD	1500	2.23	34.646	27.69	48.26	1.141	14833						
OBS	1619	2.17	34.675	27.72			14850	411	203	340	78	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	303	27MAY1964	2317	6058S	9015W	4912	525	0	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		0	6	2.7	0.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	2.07	34.047	27.23			14573	742	179	266	11	801	
STD	0	2.07	34.047	27.23	85.62	0.000	14573						
STD	10	2.06	34.042	27.22	85.93	.009	14574						
STD	20	2.04	34.038	27.22	86.09	.017	14574						
OBS	23	2.03	34.037	27.22			14574	738	173	266	9	809	
STD	30	1.99	34.035	27.22	85.99	.026	14574						
OBS	46	1.93	34.032	27.22			14574	739	169	269	11	807	
STD	50	1.94	34.032	27.22	85.89	.043	14575						
OBS	69	2.01	34.031	27.22			14581	741	172	263	12	810	
STD	75	2.01	34.030	27.22	86.77	.065	14582						
OBS	93	1.98	34.032	27.22			14584	740	166	274	12	810	
STD	100	1.99	34.039	27.23	85.81	.086	14585						
OBS	142	2.06	34.097	27.27			14596	689	181	287	19	806	
STD	150	2.04	34.106	27.28	81.20	.128	14596						
OBS	190	1.86	34.145	27.32			14595	667	186	309	30	802	
STD	200	1.79	34.148	27.33	76.37	.167	14594						
STD	250	1.52	34.160	27.36	73.64	.205	14591						
OBS	286	1.39	34.165	27.37			14590	669	188	309	33	802	
STD	300	1.42	34.176	27.38	71.83	.241	14594						
OBS	385	1.75	34.254	27.42			14624	583	205	331	42	798	
STD	400	1.78	34.266	27.42	68.40	.311	14628						
STD	500	1.95	34.342	27.47	63.82	.377	14652						
OBS	585	2.01	34.402	27.51			14670	488	204	339	56	795	
STD	600	2.02	34.413	27.52	59.99	.439	14673						
STD	700	2.05	34.486	27.58	54.96	.497	14691						
OBS	782	2.06	34.540	27.62			14706	440	191	343	69	792	
STD	800	2.07	34.550	27.63	50.68	.550	14710						
STD	900	2.14	34.599	27.66	48.07	.599	14730						
OBS	979	2.18	34.630	27.68			14745	480	204	346	76	791	
STD	1000	2.17	34.636	27.69	46.29	.646	14748						
OBS	1203	2.12	34.680	27.73			14780	414	196	339	81	793	
STD	1250	2.10	34.689	27.74	42.22	.757	14787						
OBS	1446	1.99	34.717	27.77			14815	426	223	331	80	795	
STD	1500	1.96	34.722	27.77	39.60	.859	14822						
OBS	1690	1.82	34.734	27.79			14848	433	215	326	88	795	
STD	1750	1.77	34.735	27.80	37.22	.955	14856						
OBS	1939	1.62	34.737	27.81			14881	444	212	329	95	795	
STD	2000	1.59	34.738	27.81	36.41	1.047	14890						
OBS	2179	1.50	34.738	27.82			14916	450	213	321	99	794	
STD	2250	1.45	34.737	27.82	35.39	1.137	14925						
OBS	2428	1.31	34.735	27.83			14950	460	200	326	100	794	
STD	2500	1.26	34.734	27.83	34.75	1.224	14959						
STD	2750	1.11	34.729	27.84	33.27	1.310	14995						
OBS	2915	1.02	34.725	27.84			15019	484	218	326	111	793	
STD	3000	.98	34.723	27.85	32.87	1.392	15032						
STD	3250	.89	34.719	27.85	31.90	1.473	15070						
OBS	3409	.83	34.717	27.85			15096	489	220	337	118	792	
STD	3500	.79	34.716	27.85	31.58	1.553	15109						
STD	3750	.69	34.715	27.86	29.73	1.629	15148						
STD	4000	.60	34.714	27.86	28.62	1.702	15187						
OBS	4078	.57	34.714	27.86			15200	498	218	337	126	791	
STD	4500	.46	34.711	27.87	27.32	1.842	15269						
OBS	4563	.45	34.710	27.87			15280	496	216	333	127	790	
OBS	4953	.41	0.000	0.00			0					789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	304	29MAY1964	730	6204S	9022W	4821	525	20	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	3	-2.0	-7.5	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.62	34.052	27.26	82.03	0.000	14553						
OBS	2	1.62	34.052	27.26			14553	744	171	254	16	802	
STD	10	1.63	34.046	27.26	82.56	.008	14555						
STD	20	1.63	34.040	27.25	83.04	.017	14556						
OBS	24	1.63	34.038	27.25			14557	744	172	255	11	808	
STD	30	1.63	34.037	27.25	83.25	.025	14558						
OBS	46	1.62	34.036	27.25			14560	743	193	253	12	811	
STD	50	1.62	34.036	27.25	83.26	.041	14561						
OBS	68	1.61	34.037	27.25			14563	743	195	261	19	811	
STD	75	1.61	34.039	27.25	83.24	.062	14564						
OBS	91	1.62	34.049	27.26			14567	738	176	248	18	807	
STD	100	1.65	34.066	27.27	81.25	.083	14571						
OBS	137	1.68	34.136	27.33			14579	737	195	290	23	806	
STD	150	1.56	34.141	27.34	75.04	.122	14576						
OBS	180	1.26	34.142	27.36			14567	692	198	299	33	802	
STD	200	1.18	34.148	27.37	71.92	.159	14567						
STD	250	1.15	34.174	27.39	69.93	.194	14574						
OBS	271	1.22	34.189	27.40			14580	655	206	302	37	802	
STD	300	1.36	34.219	27.42	68.11	.229	14592						
OBS	364	1.73	34.294	27.45			14620	553	208	319	49	799	
STD	400	1.84	34.331	27.47	64.00	.295	14631						
STD	500	2.06	34.424	27.53	58.57	.356	14658						
OBS	559	2.11	34.473	27.56			14671	446	211	334	57	789	
STD	600	2.16	34.505	27.58	54.39	.412	14680						
STD	700	2.23	34.573	27.63	50.20	.465	14701						
OBS	755	2.25	34.603	27.66			14711	408	205	338	73	790	
STD	800	2.25	34.619	27.67	47.21	.513	14718						
STD	900	2.21	34.647	27.69	45.28	.560	14734						
OBS	953	2.18	34.657	27.70			14741	405	200	329	78	792	
STD	1000	2.15	34.668	27.72	43.65	.604	14747						
OBS	1048	2.11	34.678	27.73			14753	415	198	329	84	789	
STD	1250	2.03	34.712	27.76	39.77	.708	14784						
OBS	1301	2.01	34.718	27.77			14791	423	200	314	87	793	
STD	1500	1.87	34.736	27.79	37.63	.805	14819						
OBS	1551	1.83	34.739	27.80			14825	438	213	319	96	792	
STD	1750	1.69	34.742	27.81	35.81	.897	14852						
OBS	1804	1.65	34.742	27.81			14860	465	224	317	104	796	
STD	2000	1.52	34.746	27.83	34.97	.985	14887						
OBS	2054	1.48	34.746	27.83			14894	456	212	319	100	795	
STD	2250	1.34	34.740	27.83	33.91	1.072	14921						
OBS	2315	1.30	34.738	27.84			14930	463	203	295	108	795	
STD	2500	1.19	34.734	27.84	33.81	1.156	14956						
OBS	2569	1.15	34.733	27.84			14966	465	205	310	116	796	
STD	2750	1.05	34.728	27.85	32.51	1.239	14992						
OBS	2832	1.00	34.726	27.85			15004	478	214	319	121	795	
STD	3000	.92	34.723	27.85	32.01	1.320	15029						
STD	3250	.80	34.719	27.85	30.70	1.398	15066						
OBS	3356	.75	34.718	27.86			15083	489	215	318	126	793	
STD	3500	.68	34.716	27.86	29.99	1.474	15104						
STD	3750	.56	34.712	27.86	28.05	1.547	15142						
OBS	3874	.51	0.000	0.00			0	495	223	310	127	792	
STD	4000	.45	34.708	27.87	26.86	1.615	15181						
STD	4500	.41	34.701	27.86	27.18	1.750	15266						
OBS	4562	.41	34.715	27.87			15068	500	217	319	126	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 13	305	30MAY1964	1735	6302S	9007W	4777	525	30	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
335	6	8.5	-0.5	0	4

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.98	34.007	27.27			14524	760	167	271	26	802	
STD	0	.98	34.007	27.27	81.33	0.000	14524						
STD	10	.98	34.001	27.27	81.77	.008	14525						
OBS	19	.98	33.997	27.26			14527	756	173	268	29	802	
STD	20	.98	33.997	27.26	82.09	.016	14527						
STD	30	.99	33.995	27.26	82.27	.025	14529						
OBS	38	1.00	33.995	27.26			14531	760	181	275	21	803	
STD	50	.99	33.997	27.26	82.11	.041	14532						
OBS	55	.99	33.998	27.26			14533	759	178	271	25	807	
OBS	75	.97	33.998	27.26			14535	756	192	272	25	805	
STD	75	.97	33.998	27.26	82.11	.062	14535						
STD	100	1.26	34.038	27.28	80.71	.082	14553						
OBS	115	1.40	34.067	27.29			14562	726	195	283	34	806	
STD	150	.93	34.100	27.35	73.85	.121	14547						
OBS	155	.85	34.104	27.36			14544	723	198	308	34	804	
STD	200	.86	34.138	27.38	70.56	.157	14553						
OBS	239	1.13	34.172	27.39			14571	666	215	317	45	802	
STD	250	1.20	34.186	27.40	69.29	.192	14576						
STD	300	1.52	34.254	27.43	66.66	.226	14600						
OBS	326	1.68	34.291	27.45			14612	559	217	326	53	800	
STD	400	1.86	34.374	27.50	60.93	.289	14633						
STD	500	1.93	34.465	27.57	54.45	.347	14653						
OBS	510	1.93	34.473	27.58			14655	455	224	341	69	791	
STD	600	2.02	34.539	27.62	50.62	.400	14674						
OBS	695	2.08	34.594	27.66			14693	417	217	333	82	790	
STD	700	2.08	34.597	27.66	47.02	.448	14694						
STD	800	2.10	34.640	27.70	44.24	.494	14712						
OBS	884	2.10	34.668	27.72			14726	407	207	324	84	791	
STD	900	2.10	34.672	27.72	42.27	.537	14729						
STD	1000	2.07	34.692	27.74	41.06	.579	14744						
OBS	1160	1.99	34.711	27.76			14767	420	199	313	88	795	
STD	1250	1.94	34.719	27.77	38.25	.678	14780						
OBS	1419	1.82	34.729	27.79			14803	438	208	319	92	795	
STD	1500	1.75	34.732	27.80	36.70	.772	14814						
OBS	1674	1.61	34.734	27.81			14836	445	209	318	105	796	
STD	1750	1.55	34.734	27.81	34.92	.861	14846						
OBS	1929	1.44	34.732	27.82			14871	450	211	303	109	796	
STD	2000	1.41	34.731	27.82	34.74	.948	14882						
OBS	2179	1.33	34.730	27.83			14909	462	214	304	113	793	
STD	2250	1.29	34.730	27.83	34.02	1.034	14918						
OBS	2436	1.17	34.728	27.84			14945	461	206	305	114	795	
STD	2500	1.13	34.727	27.84	33.65	1.119	14954						
OBS	2685	1.02	34.722	27.84			14980	466	206	327	116	793	
STD	2750	.98	34.721	27.84	32.21	1.201	14989						
OBS	2940	.88	34.719	27.85			15018	475	203	299	121	794	
STD	3000	.85	34.718	27.85	31.50	1.281	15026						
STD	3250	.75	34.715	27.85	30.33	1.358	15064						
OBS	3445	.68	34.713	27.86			15095	481	207	317	121	795	
STD	3500	.66	34.712	27.86	29.95	1.434	15103						
STD	3750	.55	34.709	27.86	28.15	1.506	15142						
STD	4000	.47	34.706	27.86	27.27	1.575	15182						
OBS	4103	.44	0.000	0.00			0	488	207	323	122	794	
STD	4500	.39	34.700	27.86	26.93	1.711	15266						
OBS	4747	.40	34.701	27.86			15115	495	210	323	122		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	306	1 JUN 1964	1915	6400S	9011W	4751	525	40	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			270	8	-1.2	-3.0	0	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.38	33.976	27.28	80.32	0.000	14496						
OBS	1	.38	33.976	27.28			14496	780	184	252	24	804	
STD	10	.38	33.970	27.28	80.77	.008	14498						
STD	20	.38	33.965	27.27	81.08	.016	14499						
OBS	25	.38	33.964	27.27			14500	778	186	264	22	809	
STD	30	.38	33.964	27.27	81.12	.024	14501						
OBS	46	.39	33.967	27.27			14504	777	189	261	19	811	
STD	50	.39	33.967	27.27	80.89	.040	14504						
OBS	72	.38	33.966	27.27			14507	778	187	255	20	808	
STD	75	.38	33.964	27.27	81.22	.061	14508						
OBS	95	.39	33.965	27.27			14512	778	192	268	20	812	
STD	100	.40	33.978	27.28	79.98	.081	14513						
OBS	141	.54	34.113	27.38			14528	725	196	304	32	806	
STD	150	.56	34.127	27.39	69.55	.118	14531						
OBS	187	.70	34.170	27.42			14543	678	219	315	39	803	
STD	200	.82	34.194	27.43	66.05	.152	14551						
STD	250	1.29	34.286	27.47	62.38	.184	14582						
OBS	288	1.66	34.355	27.50			14605	530	225	337	50	796	
STD	300	1.71	34.368	27.51	59.52	.215	14610						
OBS	393	1.91	34.445	27.56			14635	474	236	316	68	793	
STD	400	1.92	34.450	27.56	55.68	.272	14636						
STD	500	2.01	34.512	27.60	51.53	.326	14657						
OBS	591	2.03	34.560	27.64			14674	433	242	313	72	791	
STD	600	2.04	34.566	27.64	48.78	.376	14676						
STD	700	2.09	34.622	27.68	45.16	.423	14695						
OBS	789	2.11	34.664	27.72			14711	415	229	314	75	800	
STD	800	2.11	34.667	27.72	42.27	.467	14713						
STD	900	2.08	34.692	27.74	40.58	.508	14728						
OBS	993	2.03	34.704	27.75			14742	420	226	315	79	799	
STD	1000	2.03	34.705	27.75	39.73	.548	14743						
OBS	1083	1.99	34.711	27.76			14755	433	215	318	76	797	
STD	1250	1.89	34.726	27.78	37.25	.645	14778						
OBS	1325	1.83	34.731	27.79			14788	450	219	316	76	795	
STD	1500	1.68	34.735	27.81	35.70	.736	14811						
OBS	1565	1.63	34.735	27.81			14819	450	217	315	78	795	
STD	1750	1.51	34.733	27.82	34.51	.824	14845						
OBS	1805	1.48	34.732	27.82			14852	465	213	314	85	797	
STD	2000	1.36	34.732	27.83	34.21	.909	14880						
OBS	2041	1.34	34.732	27.83			14886	462	209	311	99	797	
STD	2250	1.19	34.732	27.84	32.71	.993	14914						
OBS	2286	1.17	34.732	27.84			14919	468	202	313	98	795	
STD	2500	1.04	34.722	27.84	32.87	1.075	14950						
OBS	2523	1.03	34.721	27.84			14953	474	208	315	102	795	
STD	2750	.93	34.717	27.84	31.80	1.156	14987						
OBS	2769	.92	34.717	27.84			14990	480	218	321	106	795	
STD	3000	.80	34.713	27.85	31.19	1.235	15024						
STD	3250	.68	34.710	27.85	29.70	1.311	15061						
OBS	3286	.66	34.710	27.86			15067	491	217	322	111	795	
STD	3500	.56	34.710	27.86	28.87	1.384	15099						
STD	3750	.47	34.709	27.87	26.98	1.454	15138						
OBS	3821	.45	34.709	27.87			15150	499	220	322	116	795	
STD	4000	.38	34.710	27.87	25.67	1.520	15178						
OBS	4359	.37	34.714	27.88			15241	508	227	317	119		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	307	4 JUN 1964	1227	6601S	9016W	4545	525	60	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			235	6	-5.0	-9.8	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.76	33.983	27.34	74.69	0.000	14444						
OBS	3	-.76	33.983	27.34			14444	805	198	262	24	801	
STD	10	-.75	33.980	27.34	74.91	.007	14446						
STD	20	-.74	33.976	27.33	75.19	.015	14448						
OBS	25	-.74	33.974	27.33			14448	795	195	262	21	809	
STD	30	-.74	33.973	27.33	75.35	.023	14449						
OBS	48	-.74	33.970	27.33			14452	794	204	265	22	811	
STD	50	-.74	33.970	27.33	75.46	.038	14453						
OBS	67	-.74	33.969	27.33			14455	795	208	269	22	811	
STD	75	-.74	33.967	27.33	75.78	.056	14457						
OBS	88	-.73	33.968	27.33			14459	794	194	261	24	811	
STD	100	-.69	33.983	27.34	74.35	.075	14463						
OBS	131	-.51	34.051	27.39			14477	759	207	286	33	810	
STD	150	-.33	34.105	27.42	66.46	.110	14490						
OBS	174	-.05	34.177	27.47			14507	690	217	306	44	808	
STD	200	.41	34.248	27.50	59.49	.142	14534						
STD	250	1.25	34.363	27.54	56.29	.171	14581						
OBS	261	1.43	34.385	27.54			14591	522	241	339	52	797	
STD	300	1.64	34.439	27.57	53.62	.198	14608						
OBS	360	1.71	34.497	27.61			14621	476	242	336	66	789	
STD	400	1.77	34.530	27.63	48.49	.249	14631						
STD	500	1.88	34.594	27.68	44.31	.296	14653						
OBS	561	1.91	34.622	27.70			14664	429	226	343	67	789	
STD	600	1.94	34.639	27.71	42.40	.339	14672						
STD	700	1.97	34.674	27.73	40.25	.380	14691						
OBS	754	1.98	34.688	27.75			14700	422	228	334	68	791	
STD	800	1.97	34.698	27.75	38.65	.420	14707						
STD	900	1.93	34.715	27.77	37.39	.458	14722						
OBS	942	1.90	34.720	27.78			14727	432	223	323	72	793	
STD	1000	1.86	34.724	27.78	36.63	.495	14736						
OBS	1084	1.80	34.728	27.79			14746	440	222	320	79	793	
STD	1250	1.68	34.729	27.80	34.82	.584	14769						
OBS	1352	1.60	34.704	27.79			14782	450	234	322	78	794	2
STD	1500	1.50	34.731	27.82	34.04	.670	14803						
OBS	1615	1.43	34.732	27.82			14818	457	226	318	83	794	
STD	1750	1.36	34.731	27.83	32.93	.754	14838						
OBS	1878	1.29	34.730	27.83			14856	465	227	317	89	793	
STD	2000	1.22	34.730	27.83	32.76	.836	14874						
OBS	2135	1.15	34.729	27.84			14893	470	212	312	98	793	
STD	2250	1.08	34.726	27.84	31.80	.917	14909						
OBS	2398	.99	34.723	27.84			14930	479	224	322	103	794	
STD	2500	.94	34.725	27.85	31.37	.996	14945						
OBS	2651	.87	34.728	27.86			14968	485	224	322	105	792	
STD	2750	.83	34.724	27.86	30.06	1.073	14983						
OBS	2913	.76	34.715	27.85			15007	478	234	314	107	791	
STD	3000	.72	34.715	27.86	30.00	1.148	15020						
STD	3250	.62	34.715	27.86	28.56	1.221	15059						
OBS	3437	.55	34.715	27.87			15088	493	228	323	115	792	
STD	3500	.53	34.715	27.87	28.06	1.292	15098						
STD	3750	.48	34.713	27.87	26.73	1.360	15139						
OBS	3968	.44	34.712	27.87			15175	501	229	327	121	791	
STD	4000	.44	34.712	27.87	26.36	1.427	15180						
OBS	4468	.39	34.712	27.87			15260	504	227	334	122	791	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	308	5 JUN 1964	1637	6651S	8950W	4446	524	69	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			220	6	-10.2	-10.4	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-1.46	33.909	27.30			14410	806	180	274	32	804	
STD	0	-1.46	33.909	27.30	78.12	0.000	14410						
STD	10	-1.47	33.949	27.34	74.97	.008	14412						
OBS	20	-1.39	33.972	27.35			14417	796	195	267	28	810	
STD	20	-1.39	33.972	27.35	73.31	.015	14417						
STD	30	-1.17	33.970	27.34	74.08	.022	14429						
OBS	42	-.91	33.967	27.33			14443	806	202	265	30	811	
STD	50	-.88	33.968	27.33	75.03	.037	14446						
OBS	62	-.90	33.971	27.34			14447	792	210	267	30	814	
STD	75	-.91	33.970	27.34	74.91	.056	14449						
OBS	81	-.92	33.969	27.34			14449	794	194	274	28	814	
STD	100	-.95	33.959	27.33	75.17	.075	14451						
OBS	123	-.82	33.978	27.34			14461	793	201	274	29	811	
STD	150	-.12	34.107	27.41	67.31	.110	14499						
OBS	165	.33	34.191	27.46			14524	672	223	314	46	809	
STD	200	.94	34.300	27.51	58.83	.142	14558						
STD	250	1.45	34.395	27.55	55.35	.171	14591						
OBS	251	1.46	34.396	27.55			14591	530	244	343	61	802	
STD	300	1.68	34.459	27.58	52.44	.198	14610						
OBS	346	1.74	34.496	27.61			14620	468	229	342	73	800	
STD	400	1.83	34.521	27.62	49.57	.249	14633						
STD	500	1.92	34.554	27.64	47.68	.297	14654						
OBS	535	1.93	34.561	27.65			14660	433	221	336	75	795	
STD	600	1.96	34.604	27.68	45.26	.344	14673						
STD	700	1.98	34.666	27.73	40.90	.387	14691						
OBS	722	1.98	34.679	27.74			14695	425	226	331	81	793	
STD	800	1.96	34.698	27.75	38.57	.426	14707						
STD	900	1.91	34.710	27.77	37.60	.464	14721						
OBS	916	1.90	34.711	27.77			14723	431	227	323	83	795	
STD	1000	1.85	34.723	27.78	36.67	.502	14735						
OBS	1220	1.71	34.743	27.81			14766	448	216	319	88	796	
STD	1250	1.69	34.744	27.81	33.86	.590	14769						
OBS	1454	1.52	34.741	27.82			14796	454	219	315	96	796	
STD	1500	1.49	34.740	27.82	33.27	.674	14802						
OBS	1697	1.37	34.734	27.83			14830	460	236	316	98	796	
STD	1750	1.34	34.732	27.83	32.66	.756	14837						
OBS	1922	1.23	34.725	27.83			14861	467	229	317	105	797	
STD	2000	1.19	34.724	27.83	32.77	.838	14872						
OBS	2148	1.11	34.723	27.84			14894	473	231	312	106	796	
STD	2250	1.04	34.722	27.84	31.71	.919	14908						
OBS	2386	.96	34.720	27.84			14927	478	233	319	113	795	
STD	2500	.90	34.719	27.85	31.41	.997	14944						
OBS	2617	.85	34.717	27.85			14961	483	233	321	115	794	
STD	2750	.80	34.713	27.85	30.40	1.075	14981						
OBS	2867	.75	34.710	27.85			14999	486	231	324	117	794	
STD	3000	.69	34.707	27.85	30.13	1.150	15019						
STD	3250	.58	34.704	27.86	28.85	1.224	15057						
OBS	3350	.54	0.000	0.00			0		229	322		793	
STD	3500	.49	34.705	27.86	28.21	1.295	15096						
STD	3750	.43	34.703	27.86	26.82	1.364	15136						
OBS	3846	.41	34.702	27.86			15054	498	230	326	119	793	
STD	4000	.38	34.703	27.87	26.20	1.430	15178						
OBS	4197	.35	34.704	27.87			15112	502	214	330	122	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	309	6 JUN 1964	1917	6616S	9341W	4689	525	63	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		195	6	-10.8	-10.8	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.51	33.976	27.32	76.19	0.000	14455						
OBS	4	-.51	33.976	27.32			14455	782	200	267	28	804	
STD	10	-.50	33.973	27.32	76.36	.008	14457						
STD	20	-.49	33.971	27.32	76.52	.015	14459						
OBS	23	-.49	33.971	27.32			14459	782	191	274	24	812	
STD	30	-.49	33.972	27.32	76.37	.023	14461						
OBS	43	-.50	33.975	27.32			14462	784	195	273	22	813	
STD	50	-.50	33.974	27.32	76.11	.038	14464						
OBS	62	-.49	33.972	27.32			14466	886	197	271	28	814	4
STD	75	-.49	33.971	27.32	76.50	.057	14468						
OBS	81	-.49	33.971	27.32			14469	787	196	269	23	813	
STD	100	-.53	33.963	27.32	76.60	.076	14471						
OBS	122	-.48	33.975	27.32			14476	788	194	267	23	814	
STD	150	-.07	34.074	27.38	70.11	.113	14501						
OBS	163	.17	34.129	27.42			14514	715	219	304	36	810	
STD	200	.87	34.240	27.46	62.90	.146	14554						
OBS	249	1.64	34.347	27.50			14597	527	210	326	54	801	
STD	250	1.65	34.348	27.50	60.30	.177	14599						
STD	300	1.82	34.400	27.53	58.00	.207	14615						
OBS	340	1.80	34.423	27.55			14620	489	237	330	63	800	
STD	400	1.92	34.470	27.58	54.10	.263	14636						
STD	500	2.07	34.542	27.62	49.81	.315	14660						
OBS	519	2.09	34.555	27.63			14664	427	232	344	71	795	
STD	600	2.11	34.606	27.67	46.38	.363	14679						
OBS	698	2.08	34.653	27.71			14694	430	229	329	77	797	
STD	700	2.08	34.653	27.71	42.75	.407	14695						
STD	800	2.06	34.670	27.72	41.55	.449	14711						
OBS	842	2.04	34.676	27.73			14716	416	222	321	78	799	
OBS	878	2.02	34.686	27.74			14721	427	223	322	79	797	
STD	900	2.01	34.691	27.74	40.05	.490	14725						
STD	1000	1.97	34.708	27.76	38.92	.530	14740						
OBS	1132	1.91	34.721	27.78			14759	436	218	313	86	800	
STD	1250	1.81	34.730	27.79	36.10	.624	14775						
OBS	1422	1.65	34.737	27.81			14796	447	217	307	89	798	
STD	1500	1.60	34.737	27.81	34.60	.712	14807						
OBS	1711	1.47	34.734	27.82			14836	457	219	307	97	798	
STD	1750	1.45	34.733	27.82	33.80	.797	14842						
OBS	1986	1.31	34.727	27.83			14875	460	216	307	100	797	
STD	2000	1.30	34.727	27.83	33.83	.882	14877						
STD	2250	1.11	34.725	27.84	32.23	.965	14910						
OBS	2273	1.09	34.725	27.84			14913	471	217	319	102	799	
STD	2500	.97	34.738	27.86	30.86	1.043	14947						
OBS	2551	.95	34.740	27.86			14954	475	223	316	112	797	
STD	2750	.86	34.724	27.85	30.42	1.120	14984						
OBS	2840	.82	34.715	27.85			14997	481	227	320	116	796	
STD	3000	.75	34.710	27.85	30.71	1.196	15022						
STD	3250	.65	34.711	27.86	29.24	1.271	15060						
OBS	3411	.59	34.710	27.86			15085	495	225	326	119	795	
STD	3500	.56	34.709	27.86	28.80	1.344	15099						
STD	3750	.48	34.708	27.86	27.20	1.414	15139						
OBS	3976	.43	34.708	27.87			15176	500	226	321	128	795	
STD	4000	.42	34.708	27.87	26.45	1.481	15180						
STD	4500	.37	34.710	27.87	25.93	1.612	15265						
OBS	4658	.37	34.711	27.87			15293	506	224	323	131	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	310	8 JUN 1964	1421	6609S	9743W	4753	525	67	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			90	5	-6.5	-7.0	0	3					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.86	34.053	27.40	68.96	0.000	14440						
OBS	2	-.86	34.053	27.40			14440	790	205	261	34	806	
STD	10	-.85	34.045	27.39	69.52	.007	14442						
STD	20	-.85	34.039	27.39	69.95	.014	14444						
OBS	22	-.85	34.038	27.39			14444	789	202	270	36	812	
STD	30	-.85	34.038	27.39	69.91	.021	14445						
OBS	43	-.86	34.039	27.39			14447	790	203	266	33	813	
STD	50	-.86	34.037	27.39	69.84	.035	14448						
OBS	62	-.85	34.035	27.39			14450	788	206	272	32	814	
STD	75	-.86	34.036	27.39	70.06	.052	14452						
OBS	82	-.86	34.037	27.39			14453	790	208	270	32	814	
STD	100	-.93	34.029	27.38	69.88	.070	14452						
OBS	122	-.83	34.040	27.39			14461	788	207	262	34	814	
STD	150	.10	34.138	27.43	66.12	.104	14510						
OBS	162	.56	34.189	27.44			14533	669	223	295	44	808	
STD	200	1.19	34.302	27.49	60.30	.135	14570						
OBS	246	1.50	34.408	27.56			14592	517	245	324	61	801	
STD	250	1.52	34.415	27.56	54.34	.164	14594						
STD	300	1.75	34.490	27.60	50.67	.190	14613						
OBS	333	1.82	34.524	27.63			14622	462	244	325	69	799	
STD	400	1.92	34.568	27.65	46.80	.239	14638						
STD	500	1.96	34.603	27.68	44.28	.285	14656						
OBS	513	1.95	34.605	27.68			14658	435	236	318	75	799	
STD	600	1.93	34.635	27.71	42.71	.328	14672						
OBS	699	1.90	34.663	27.73			14687	437	226	301	79	798	
STD	700	1.90	34.663	27.73	40.36	.370	14687						
STD	800	1.91	34.690	27.75	38.68	.409	14704						
OBS	894	1.91	34.710	27.77			14720	435	228	292	82	799	
STD	900	1.91	34.711	27.77	37.55	.447	14721						
STD	1000	1.87	34.721	27.78	36.96	.485	14736						
OBS	1088	1.82	34.726	27.79			14748	452	223	298	87	799	
STD	1250	1.68	34.733	27.80	34.59	.574	14769						
OBS	1351	1.58	34.734	27.81			14781	458	240	295	95	798	
STD	1500	1.47	34.733	27.82	33.65	.659	14801						
OBS	1612	0.00	34.730	0.00			0	469	224	299	100	799	
STD	1750	1.32	34.726	27.82	32.95	.743	14836						
OBS	1874	1.26	34.722	27.83			14842	470	222	287	104	799	
STD	2000	1.20	34.720	27.83	33.14	.825	14872						
OBS	2131	1.13	34.719	27.83			14879	479	223	283	107	798	
STD	2250	1.05	34.717	27.84	32.06	.907	14908						
OBS	2400	.95	34.715	27.84			14916	480	225	285	113	796	
STD	2500	.91	34.712	27.84	31.96	.987	14944						
OBS	2663	.85	34.708	27.84			14956	491	224	287	116	797	
STD	2750	.81	34.708	27.84	31.01	1.065	14982						
OBS	2928	.74	34.709	27.85			14997	486	231	282	119	797	
STD	3000	.71	34.708	27.85	30.37	1.142	15020						
STD	3250	.62	34.705	27.85	29.28	1.217	15059						
OBS	3454	.55	34.702	27.86			15079	498	228	285	122	795	
STD	3500	.53	34.702	27.86	28.98	1.290	15098						
STD	3750	.46	34.702	27.86	27.27	1.360	15138						
OBS	3980	.40	34.702	27.86			15163	509	230	286	128	794	
STD	4000	.39	34.702	27.86	26.45	1.427	15178						
STD	4500	.35	34.700	27.87	26.25	1.559	15264						
OBS	4695	.35	34.698	27.86			15286	516	231	310	133	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	311	10 JUN 1964	239	6607S	10213W	4846	526	62	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		10	5	0.0	.2	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.11	34.051	27.37	72.19	0.000	14475						
OBS	2	-.11	34.051	27.37			14475	776	205	270	32	810	
STD	10	-.11	34.046	27.36	72.54	.007	14476						
STD	20	-.11	34.041	27.36	72.89	.015	14478						
OBS	27	-.11	34.038	27.36			14479	771	201	272	35	811	
STD	30	-.11	34.037	27.36	73.09	.022	14479						
STD	50	-.11	34.035	27.35	73.19	.036	14483						
OBS	53	-.11	34.035	27.35			14483	770	208	278	33	813	
OBS	75	-.11	34.034	27.35			14486	776		272			
STD	75	-.11	34.034	27.35	73.42	.055	14487						
OBS	99	-.12	34.040	27.36			14490	776	201	273	36	813	
STD	100	-.12	34.040	27.36	72.60	.073	14490						
OBS	149	-.05	34.045	27.36			14501	774	196	276	33	812	
STD	150	-.04	34.047	27.36	72.33	.109	14502						
OBS	198	.61	34.158	27.41			14541	687	219	311	50	810	
STD	200	.63	34.162	27.42	67.29	.144	14543						
STD	250	1.16	34.265	27.47	63.10	.177	14576						
OBS	297	1.53	34.347	27.51			14601	531	237	331	63	802	
STD	300	1.55	34.351	27.51	59.52	.207	14602						
STD	400	1.87	34.471	27.58	53.64	.264	14634						
OBS	402	1.87	34.473	27.58			14635	469	244	336	74	797	
STD	500	2.02	34.540	27.62	49.59	.316	14658						
OBS	599	2.07	34.582	27.65			14677	423	248	339	81	800	
STD	600	2.07	34.582	27.65	47.82	.364	14677						
STD	700	2.08	34.626	27.69	44.82	.411	14695						
OBS	797	2.06	34.659	27.72			14710	423	232	322	94	799	
STD	800	2.06	34.660	27.72	42.38	.454	14711						
STD	900	2.04	34.680	27.73	41.07	.496	14726						
OBS	999	1.99	34.694	27.75			14740	429	229	310	92	799	
STD	1000	1.99	34.694	27.75	40.13	.537	14741						
OBS	1132	1.88	34.714	27.77			14758	442	222	313	92	803	
STD	1250	1.81	34.720	27.78	36.90	.633	14775						
OBS	1381	1.74	34.721	27.79			14793	447	229	315	107	799	
STD	1500	1.63	34.721	27.80	36.12	.724	14808						
OBS	1629	1.51	34.721	27.81			14824	455	224	303	109	797	
STD	1750	1.43	34.720	27.81	34.59	.813	14841						
OBS	1878	1.36	34.720	27.82			14859	462	227	299	110	797	
STD	2000	1.27	34.725	27.83	33.70	.898	14876						
OBS	2121	1.19	34.728	27.84			14892	469	223	313	115	795	
STD	2250	1.11	34.724	27.84	32.37	.980	14911						
OBS	2376	1.05	34.718	27.84			14929	476	230	302	122	794	
STD	2500	1.00	34.714	27.84	32.96	1.062	14948						
STD	2750	.91	34.707	27.84	32.33	1.144	14986						
OBS	2876	.87	34.704	27.84			15006	482	223	313	133	793	
STD	3000	.82	34.701	27.84	32.25	1.224	15024						
STD	3250	.71	34.697	27.84	31.09	1.304	15062						
OBS	3383	.65	34.695	27.84			15083	494	225	312	137	792	
STD	3500	.60	34.695	27.85	30.39	1.380	15101						
STD	3750	.50	34.696	27.85	28.40	1.454	15140						
OBS	3886	.46	34.696	27.86			15162	503	226	308	140	791	
STD	4000	.44	34.694	27.86	27.61	1.524	15180						
OBS	4396	.38	34.689	27.85			15247	508	226	313	143	792	
STD	4500	.37	34.689	27.86	27.34	1.661	15264						
OBS	4746	.35	34.692	27.86			15308	507	224	317	146	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	312	12 JUN 1964	22	6530S	10717W	4821	526	57	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	5	0.0	-1.6	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.35	34.073	27.36	72.77	0.000	14496						
OBS	2	.35	34.073	27.36			14496	777	208	272	26	811	
STD	10	.35	34.064	27.35	73.39	.007	14498						
STD	20	.35	34.057	27.35	73.95	.015	14499						
OBS	25	.35	34.054	27.35			14500	767	212	282	28	812	
STD	30	.35	34.054	27.35	74.14	.022	14501						
OBS	48	.36	34.053	27.34			14504	773	216	286	29	812	
STD	50	.36	34.053	27.34	74.21	.037	14504						
OBS	70	.38	34.054	27.34			14508	772	214	283	30	812	
STD	75	.37	34.056	27.35	74.24	.055	14509						
OBS	91	.34	34.061	27.35			14510	750	214	291	27	815	
STD	100	.34	34.060	27.35	73.43	.074	14512						
OBS	137	.39	34.055	27.34			14520	771	217	267	27	814	
STD	150	.37	34.053	27.34	74.11	.111	14521						
OBS	182	.39	34.063	27.35			14527	770	220	282	28	815	
STD	200	.58	34.106	27.37	71.23	.147	14539						
STD	250	1.17	34.245	27.45	64.64	.181	14576						
OBS	275	1.49	34.324	27.49			14595	551	229	327	61	810	
STD	300	1.58	34.365	27.52	58.82	.212	14604						
OBS	371	1.67	34.445	27.57			14620	497	242	337	68	810	
STD	400	1.73	34.471	27.59	52.51	.268	14628						
STD	500	1.91	34.543	27.63	48.40	.318	14654						
OBS	556	1.99	34.570	27.65			14666	432	251	337	76	799	
STD	600	2.02	34.588	27.66	46.93	.366	14675						
STD	700	2.04	34.621	27.69	44.77	.412	14693						
OBS	743	2.03	34.632	27.70			14699	425	257	322	80	797	
STD	800	2.02	34.650	27.71	42.74	.455	14709						
STD	900	2.00	34.678	27.74	40.87	.497	14725						
OBS	941	1.98	34.687	27.74			14730	431	249	292	87	796	
STD	1000	1.95	34.695	27.75	39.74	.537	14739						
OBS	1153	0.00	34.706	0.00			0	441	230	297	87	799	
STD	1250	1.82	34.711	27.78	37.62	.634	14775						
OBS	1396	1.71	34.715	27.79			14762	472	231	302	95	798	
STD	1500	1.62	34.718	27.80	36.33	.727	14808						
OBS	1641	1.51	34.719	27.81			14794	461	230	285	92	798	
STD	1750	1.44	34.715	27.81	35.00	.816	14841						
OBS	1893	1.36	34.710	27.81			14829	465	229	306	101	797	
STD	2000	1.30	34.709	27.81	35.19	.904	14877						
OBS	2138	1.23	34.708	27.82			14865	472	229	302	104	797	
STD	2250	1.16	34.707	27.82	34.20	.990	14913						
OBS	2393	1.08	34.705	27.82			14901	473	228	315	114	797	
STD	2500	1.02	34.703	27.83	34.02	1.076	14949						
STD	2750	.90	34.699	27.83	32.82	1.159	14986						
OBS	2898	.84	34.696	27.83			14976	490	227	320	118	796	
STD	3000	.80	34.695	27.83	32.55	1.241	15024						
STD	3250	.71	34.691	27.84	31.55	1.321	15063						
OBS	3410	.66	34.690	27.84			15055	491	227	300	127	794	
STD	3500	.62	34.689	27.84	31.05	1.399	15101						
STD	3750	.51	34.688	27.85	28.99	1.474	15140						
OBS	3927	.44	34.688	27.85			15135	507	229	299	126	794	
STD	4000	.42	34.688	27.85	27.87	1.545	15179						
OBS	4450	.36	34.687	27.85			15223	510	227	279	134	793	
STD	4500	.36	34.687	27.85	27.29	1.683	15264						
OBS	4790	.34	34.686	27.85			15282	510	230	329	137	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 13	313	13 JUN 1964	1715	6543S	11234W	4768	527	51	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
300	6	1.5	-0.5	0	6

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	.48	34.074	27.35	73.38	0.000	14502						
OBS	1	.48	34.074	27.35			14502	772	240	269	29	804	
STD	10	.49	34.067	27.35	73.94	.007	14504						
STD	20	.50	34.062	27.34	74.34	.015	14506						
OBS	27	.50	34.060	27.34			14507	772	199	279	32	809	
STD	30	.50	34.061	27.34	74.42	.022	14508						
STD	50	.50	34.066	27.35	73.99	.037	14511						
OBS	54	.50	34.067	27.35			14511	774	200	276	31	811	
STD	75	.49	34.061	27.34	74.48	.056	14515						
OBS	79	.49	34.060	27.34			14515	772	197	269	29	811	
STD	100	.47	34.060	27.34	74.19	.074	14518						
OBS	103	.47	34.060	27.34			14518	771	193	271	29	812	
STD	150	.43	34.064	27.35	73.53	.111	14524						
OBS	156	.43	34.068	27.35			14525	773	199	270	29	812	
STD	200	.68	34.161	27.41	67.68	.146	14544						
OBS	207	.73	34.179	27.42			14548	678	215	300	44	804	
STD	250	1.15	34.279	27.48	61.87	.179	14575						
STD	300	1.60	34.385	27.53	57.41	.209	14605						
OBS	311	1.69	34.406	27.54			14611	501	231	314	60	798	
STD	400	1.85	34.510	27.61	50.59	.263	14634						
OBS	417	1.85	34.524	27.62			14637	460	231	335	73	797	
STD	500	1.91	34.578	27.66	45.78	.311	14654						
STD	600	1.95	34.619	27.69	43.97	.356	14673						
OBS	618	1.95	34.624	27.70			14675	435	228	335	82	797	
STD	700	1.98	34.649	27.71	42.16	.399	14691						
STD	800	1.99	34.672	27.73	40.82	.440	14708						
OBS	817	1.99	34.675	27.73			14710	431	225	299	86	797	
STD	900	1.96	34.692	27.75	39.41	.480	14723						
STD	1000	1.90	34.709	27.77	38.16	.519	14737						
OBS	1019	1.89	34.712	27.77			14740	439	215	293	83	798	
OBS	1193	1.77	34.726	27.79			14763	443	211	293	95	797	
STD	1250	1.73	34.727	27.80	35.56	.611	14771						
OBS	1443	1.59	34.724	27.80			14797	455	215	282	98	797	
STD	1500	1.54	34.723	27.81	35.05	.700	14804						
OBS	1692	1.39	34.721	27.82			14829	466	215	291	106	797	
STD	1750	1.35	34.720	27.82	33.66	.785	14837						
OBS	1946	1.23	34.716	27.82			14865	469	209	295	104	797	
STD	2000	1.21	34.715	27.82	33.64	.870	14873						
OBS	2188	1.14	34.713	27.83			14901	471	215	292	104	796	
STD	2250	1.11	34.713	27.83	33.11	.953	14910						
OBS	2445	1.00	34.711	27.83			14938	478	221	304	114	796	
STD	2500	.97	34.709	27.83	32.96	1.036	14947						
STD	2750	.87	34.702	27.84	32.09	1.117	14984						
OBS	2941	.79	34.697	27.84			15013	490	221	293	123	795	
STD	3000	.76	34.697	27.84	31.87	1.197	15022						
STD	3250	.66	34.697	27.84	30.40	1.275	15060						
OBS	3434	.58	34.697	27.85			15089	495	221	300	116	794	
STD	3500	.55	34.696	27.85	29.63	1.350	15098						
STD	3750	.46	34.693	27.85	27.87	1.422	15137						
OBS	3926	.40	34.691	27.86			15166	503	220	304	128	793	
STD	4000	.39	34.691	27.86	27.13	1.490	15178						
OBS	4446	.35	34.691	27.86			15255	508	221	306	131	792	
STD	4500	.35	34.691	27.86	26.84	1.625	15263						
OBS	4925	.32	34.692	27.86			15338	514	231	302	131	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	314	15 JUN 1964	715	6520S	11736W	4943	527	57	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			200	5	-3.5	-7.6	0	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.81	34.132	27.38			14518	748	196	285	34	802	
STD	0	.81	34.132	27.38	70.81	0.000	14518						
STD	10	.82	34.122	27.37	71.61	.007	14519						
STD	20	.82	34.115	27.37	72.15	.014	14521						
OBS	26	.82	34.112	27.36			14522	750	208	297	30	802	
STD	30	.82	34.112	27.37	72.30	.022	14523						
STD	50	.81	34.114	27.37	72.13	.036	14526						
OBS	54	.81	34.115	27.37			14526	751	216	289	30	804	
STD	75	.81	34.118	27.37	71.98	.054	14530						
OBS	81	.81	34.119	27.37			14531	752	204	293	30	808	
STD	100	.81	34.117	27.37	71.81	.072	14534						
OBS	107	.81	34.116	27.37			14535	751	200	292	33	809	
STD	150	.83	34.115	27.37	72.06	.108	14543						
OBS	163	.84	34.116	27.37			14545	751	200	292	32	811	
STD	200	.88	34.116	27.36	72.32	.144	14553						
OBS	217	.92	34.125	27.37			14558	743	202	290	33	809	
STD	250	1.23	34.217	27.42	67.24	.179	14578						
STD	300	1.74	34.371	27.51	59.49	.211	14611						
OBS	327	2.02	34.463	27.56			14629	466	224	337	70	798	
STD	400	2.18	34.543	27.61	50.87	.266	14649						
OBS	437	2.17	34.560	27.63			14655	431	230	329	78	791	
STD	500	2.22	34.593	27.65	47.35	.315	14668						
STD	600	2.23	34.632	27.68	45.61	.361	14685						
OBS	651	2.25	34.644	27.69			14694	412	217	330	82	790	
OBS	700	2.23	34.659	27.70			14702	413	221	340	88	791	
STD	700	2.23	34.659	27.70	43.74	.406	14702						
STD	800	2.20	34.680	27.72	42.22	.449	14717						
OBS	894	2.17	34.692	27.73			14731	425	222	317	87	793	
STD	900	2.17	34.693	27.73	41.44	.491	14732						
STD	1000	2.13	34.701	27.74	41.08	.532	14747						
OBS	1133	2.06	34.708	27.75			14766	426	227	317	83	796	
STD	1250	1.94	34.718	27.77	38.42	.631	14780						
OBS	1367	1.82	34.726	27.79			14795	446	219	323	92	797	
STD	1500	1.74	34.729	27.80	36.72	.725	14813						
OBS	1617	1.67	34.730	27.80			14829	455	212	319	96	798	
STD	1750	1.55	34.733	27.81	34.94	.815	14846						
OBS	1865	1.44	34.734	27.82			14861	469	215	321	102	797	
STD	2000	1.34	34.731	27.83	33.99	.901	14879						
OBS	2104	1.27	34.698	27.81			14893	466	214	317	107	796	2
STD	2250	1.15	34.723	27.83	32.85	.985	14912						
OBS	2353	1.07	34.719	27.84			14926	478	214	322	113	796	
STD	2500	.97	34.714	27.84	32.61	1.067	14946						
STD	2750	.83	34.707	27.84	31.32	1.146	14983						
OBS	2840	.79	34.705	27.84			14996	488	213	321	125	796	
STD	3000	.73	34.706	27.85	30.77	1.224	15021						
STD	3250	.65	34.709	27.85	29.45	1.299	15060						
OBS	3329	.63	34.710	27.86			15073	495	217	317	127	795	
STD	3500	.56	34.707	27.86	28.99	1.372	15099						
STD	3750	.47	34.703	27.86	27.38	1.443	15138						
OBS	3829	.44	34.701	27.86			15151	503	215	326	133	795	
STD	4000	.40	34.701	27.86	26.52	1.510	15178						
OBS	4337	.34	34.702	27.87			15236	509	213	327	136	794	
STD	4500	.33	34.704	27.87	25.68	1.641	15263						
OBS	4807	.33	34.708	27.87			15318	513	216	336	136	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	315	17 JUN 1964	130	6532S	12110W	4848	528	51	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			60	7	.4	.4	0	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	.36	34.071	27.36	72.97	0.000	14497						
OBS	3	.36	34.071	27.36			14497	780	211	255	32	800	
STD	10	.37	34.061	27.35	73.71	.007	14498						
STD	20	.37	34.053	27.34	74.34	.015	14500						
OBS	22	.37	34.052	27.34			14500	779	213	258	32	800	
STD	30	.36	34.052	27.34	74.33	.022	14501						
OBS	38	.36	34.054	27.35			14502	776	206	259	34	802	
STD	50	.37	34.052	27.34	74.32	.037	14505						
OBS	57	.37	34.050	27.34			14505	775	209	251	31	802	
STD	75	.36	34.049	27.34	74.69	.056	14508						
OBS	76	.36	34.049	27.34			14508	776	208	258	30	807	
STD	100	.37	34.050	27.34	74.32	.074	14513						
OBS	110	.37	34.051	27.34			14514	777	200	256	31	811	
OBS	146	.37	34.051	27.34			14520	776	204	258	33	810	
STD	150	.39	34.060	27.35	73.64	.111	14522						
STD	200	.75	34.206	27.44	64.70	.146	14549						
OBS	217	.92	34.270	27.49			14559	614	240	248	56	799	
STD	250	1.22	34.359	27.54	56.43	.176	14580						
OBS	292	1.57	34.454	27.59			14603	501	245	243	65	798	
STD	300	1.60	34.467	27.60	51.24	.203	14606						
STD	400	1.79	34.578	27.67	45.00	.251	14632						
OBS	438	1.77	34.596	27.69			14638	442	243	249	76	795	
STD	500	1.84	34.620	27.70	42.04	.295	14651						
OBS	591	1.91	34.638	27.71			14669	439	239	253	81	792	
STD	600	1.91	34.641	27.71	42.07	.337	14671						
STD	700	1.94	34.670	27.73	40.23	.378	14689						
OBS	766	1.93	34.687	27.75			14699	474	236	292	83	794	
STD	800	1.91	34.693	27.75	38.48	.417	14705						
STD	900	1.85	34.709	27.77	37.12	.455	14719						
STD	1000	1.78	34.720	27.79	36.10	.492	14732						
OBS	1145	1.64	34.728	27.80			14749	457	222	272	92	797	
STD	1250	1.57	34.730	27.81	33.65	.579	14764						
OBS	1406	1.46	34.729	27.82			14785	466	228	281	97	797	
STD	1500	1.40	34.728	27.82	33.22	.662	14798						
OBS	1659	1.30	34.725	27.83			14820	466	229	284	105	798	
STD	1750	1.24	34.723	27.83	32.25	.744	14832						
OBS	1887	1.15	34.719	27.83			14851	469	225	285	110	797	
STD	2000	1.11	34.718	27.83	32.27	.825	14868						
OBS	2153	1.05	34.716	27.84			14891	472	218	283	111	797	
STD	2250	.99	34.711	27.84	31.85	.905	14905						
OBS	2395	.90	34.704	27.84			14925	483	233	285	116	797	
STD	2500	.86	34.704	27.84	31.92	.985	14941						
OBS	2648	.80	34.705	27.84			14964	484	236	282	124	796	
STD	2750	.75	34.703	27.84	30.60	1.063	14979						
STD	3000	.64	34.699	27.85	30.15	1.139	15017						
OBS	3148	.58	34.696	27.85			15039	493	242	297	126	795	
STD	3250	.54	34.696	27.85	28.84	1.213	15055						
STD	3500	.45	34.696	27.86	28.24	1.284	15094						
OBS	3671	.40	34.696	27.86			15121	502	226	287	129	795	
STD	3750	.38	34.696	27.86	26.67	1.353	15134						
STD	4000	.35	34.695	27.86	26.26	1.419	15176						
OBS	4194	.33	34.694	27.86			15209	506	232	284	135	794	
STD	4500	.31	34.694	27.86	26.09	1.550	15262						
OBS	4732	.31	34.695	27.86			15303	513	235	288	137	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	316	18JUN1964	1632	6536S	12413W	4841	528	54	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		340	5	-1.1	-1.1	0	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	-.10	34.016	27.34			14475	790	210	271	38	794	
STD	0	-.10	34.016	27.34	74.90	0.000	14475						
STD	10	-.10	34.005	27.33	75.71	.008	14476						
STD	20	-.11	33.998	27.32	76.12	.015	14477						
OBS	21	-.11	33.998	27.32			14477	789	202	274	36	802	
STD	30	-.09	33.999	27.32	76.09	.023	14480						
OBS	44	-.05	34.005	27.33			14484	787	203	261	37	803	
STD	50	-.04	34.006	27.33	75.74	.038	14485						
OBS	64	-.02	34.007	27.33			14489	785	202	266	37	814	
STD	75	-.01	34.006	27.33	76.03	.057	14491						
OBS	85	-.01	34.005	27.33			14492	785	200	271	37	812	
STD	100	-.01	34.004	27.32	75.86	.076	14495						
OBS	129	.03	34.018	27.33			14502	784	198	268	38	813	
STD	150	.12	34.049	27.35	73.01	.113	14510						
OBS	174	.30	34.106	27.39			14522	736	205	283	44	810	
STD	200	.71	34.232	27.47	62.44	.147	14547						
STD	250	1.48	34.473	27.61	49.69	.175	14593						
OBS	262	1.67	34.530	27.64			14604	457	209	333	75	798	
STD	300	1.84	34.581	27.67	44.50	.199	14619						
OBS	355	1.88	34.595	27.68			14629	430	211	328	82	797	
STD	400	1.90	34.618	27.70	42.85	.242	14638						
STD	500	1.88	34.658	27.73	39.48	.283	14654						
OBS	540	1.84	34.669	27.74			14659	431	225	321	83	801	
STD	600	1.82	34.682	27.75	38.15	.322	14668						
STD	700	1.78	34.697	27.77	36.74	.360	14683						
OBS	725	1.77	34.700	27.77			14686	443	222	301	90	797	
STD	800	1.72	34.708	27.78	35.67	.396	14697						
STD	900	1.66	34.716	27.79	34.83	.431	14710						
OBS	925	1.64	34.717	27.79			14714	447	226	296	93	797	
STD	1000	1.59	34.721	27.80	34.26	.466	14724						
OBS	1177	1.47	34.726	27.81			14748	458	231	296	98	798	
STD	1250	1.42	34.726	27.82	32.51	.549	14757						
OBS	1440	1.28	34.719	27.82			14783	464	234	296	102	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	317	20 JUN 1964	1727	6528S	12958W	4762	528	59	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	7	1.0	1.0	0	7						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.64	33.945	27.31	78.05	0.000	14449						
OBS	3	-.64	33.945	27.31			14449	805	215	270	38	801	
STD	10	-.63	33.939	27.30	78.47	.008	14451						
STD	20	-.63	33.933	27.30	78.87	.016	14452						
OBS	23	-.63	33.932	27.29			14452	806	202	278	34	802	
STD	30	-.64	33.931	27.29	78.96	.024	14453						
OBS	39	-.65	33.930	27.29			14454	803	202	275	35	811	
STD	50	-.64	33.928	27.29	79.08	.039	14457						
OBS	58	-.63	33.927	27.29			14458	804	202	274	40	813	
STD	75	-.62	33.935	27.30	78.68	.059	14462						
OBS	76	-.62	33.936	27.30			14461	804	203	267	42	815	
STD	100	-.58	33.941	27.30	78.06	.079	14467						
OBS	110	-.55	33.944	27.30			14470	804	203	267	41	813	
OBS	146	-.25	33.989	27.32			14491	788	210	275	44	806	
STD	150	-.18	34.013	27.34	74.20	.117	14496						
STD	200	.76	34.338	27.55	54.82	.149	14551						
OBS	222	1.18	34.493	27.65			14575	501	213	330	67	802	
STD	250	1.40	34.566	27.69	41.99	.173	14590						
STD	300	1.59	34.624	27.72	39.31	.194	14608						
OBS	302	1.59	34.624	27.72			14608	455	200	333	81	799	
STD	400	1.62	34.676	27.76	36.21	.231	14626						
OBS	445	0.00	34.681	0.00			0	446	233	336	81	799	
STD	500	1.65	34.703	27.78	34.17	.266	14644						
STD	600	1.68	34.730	27.80	33.33	.300	14662						
OBS	614	1.68	34.732	27.80			14625	443	218	323	88	799	
STD	700	1.61	34.725	27.80	33.22	.334	14676						
OBS	727	1.59	34.721	27.80			14640	462	242	314	100	798	4
OBS	787	1.56	34.722	27.80			14648	450	238	321	97	798	
STD	800	1.55	34.723	27.81	33.03	.367	14689						
STD	900	1.51	34.726	27.81	32.65	.399	14704						
OBS	953	1.48	34.728	27.81			14672	455	237	315	100	798	
STD	1000	1.45	34.728	27.82	32.43	.432	14717						
OBS	1189	1.31	34.724	27.82			14703	461	235	324	107	797	
STD	1250	1.28	34.724	27.83	31.27	.512	14751						
OBS	1440	1.18	34.723	27.83			14739	465	228	321	109	798	
STD	1500	1.15	34.722	27.83	31.01	.590	14787						
OBS	1694	1.03	34.720	27.84			14774	472	235	324	113	797	
STD	1750	.99	34.720	27.84	29.87	.666	14821						
OBS	1950	.87	34.717	27.85			14810	478	227	327	115	797	
STD	2000	.85	34.716	27.85	29.56	.740	14857						
OBS	2212	.76	34.709	27.85			14848	484	231	327	116	795	
STD	2250	.75	34.708	27.85	29.25	.813	14894						
STD	2500	.66	34.703	27.85	29.68	.887	14933						
OBS	2711	.60	34.700	27.85			14925	491	228	330	126	793	
STD	2750	.59	34.699	27.85	28.77	.960	14972						
STD	3000	.49	34.697	27.85	28.35	1.032	15010						
OBS	3225	.42	34.696	27.86			15005	501	227	328	130	794	
STD	3250	.41	34.696	27.86	27.18	1.101	15049						
STD	3500	.36	34.697	27.86	27.01	1.169	15090						
OBS	3735	.33	34.698	27.87			15089	507	243	325	133	794	
STD	3750	.33	34.698	27.87	25.69	1.235	15132						
STD	4000	.28	34.699	27.87	25.01	1.298	15173						
STD	4500	.24	34.704	27.87	24.28	1.421	15259						
OBS	4503	.24	34.704	27.87			15219	498	224	323	137	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	318	22JUN1964	605	6402S	13003W	4912	529	40	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			275	7	-5.1	-9.5	0	7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
ORS	0	.57	34.096	27.37			14506	801	215	261	39	802	
STD	0	.57	34.096	27.37	72.19	0.000	14506						
STD	10	.60	34.086	27.36	73.08	.007	14509						
STD	20	.62	34.080	27.35	73.65	.015	14511						
OBS	24	.62	34.078	27.35			14512	771	210	262	41	804	
STD	30	.62	34.078	27.35	73.75	.022	14513						
OBS	49	.61	34.081	27.35			14516	772	213	262	41	803	
STD	50	.61	34.081	27.35	73.47	.037	14516						
OBS	69	.62	34.076	27.35			14520		208	262	43	812	
STD	75	.62	34.081	27.35	73.75	.055	14521						
OBS	100	.62	34.105	27.37			14525	771	205	270	41	812	
STD	100	.62	34.105	27.37	71.60	.073	14525						
OBS	145	.54	34.116	27.38			14529	759	193	279	47	812	
STD	150	.57	34.135	27.40	68.96	.108	14531						
OBS	197	.93	34.346	27.55			14558	566	241	315	52	802	
STD	200	.96	34.354	27.55	54.79	.139	14560						
STD	250	1.35	34.467	27.62	49.08	.165	14587						
OBS	296	1.65	34.525	27.64			14609	465	232	321	68	798	
STD	300	1.67	34.530	27.64	46.95	.189	14610						
STD	400	1.92	34.635	27.71	41.74	.234	14639						
OBS	401	1.92	34.636	27.71			14639	427	227	317	80	797	
STD	500	1.88	34.684	27.75	37.57	.273	14654						
STD	600	1.84	34.703	27.77	36.76	.310	14669						
OBS	607	0.00	34.703	0.00			0	440	227	315	86	799	1
STD	700	1.89	34.713	27.77	36.56	.347	14688						
OBS	796	1.76	34.718	27.79			14675	447	236	312	90	798	
STD	800	1.76	34.718	27.79	35.19	.383	14698						
STD	900	1.68	34.725	27.80	34.34	.418	14711						
OBS	999	1.60	34.730	27.81			14701	454	235	308	98	798	
STD	1000	1.60	34.730	27.81	33.68	.452	14724						
OBS	1235	1.42	34.732	27.82			14732	459	241	309	107	797	
STD	1250	1.41	34.732	27.82	31.94	.534	14757						
OBS	1475	1.25	34.730	27.83			14764	466	228	310	112	796	
STD	1500	1.24	34.729	27.83	31.47	.613	14791						
OBS	1713	1.13	34.719	27.83			14798	471	227	299	119	796	
STD	1750	1.10	34.718	27.83	31.16	.691	14826						
OBS	1945	.97	34.715	27.84			14830	471	235	307	125	796	
STD	2000	.94	34.714	27.84	30.65	.769	14861						
OBS	2185	.84	34.713	27.85			14864	480	236	313	125	796	
STD	2250	.81	34.713	27.85	29.63	.844	14897						
STD	2500	.72	34.714	27.85	29.55	.918	14935						
OBS	2657	.67	34.714	27.86			14937	488	239	312	128	795	
STD	2750	.64	34.712	27.86	28.50	.991	14974						
STD	3000	.55	34.707	27.86	28.38	1.062	15013						
OBS	3143	.50	34.703	27.86			15012	493	245	315	129	795	
STD	3250	.46	34.702	27.86	27.39	1.131	15051						
STD	3500	.38	34.700	27.86	27.00	1.199	15091						
OBS	3641	.34	34.699	27.87			15090	511	243	315	131	794	
STD	3750	.32	34.699	27.87	25.58	1.265	15132						
STD	4000	.30	34.699	27.87	25.25	1.329	15174						
OBS	4161	.29	34.699	27.87			15179	512	239	317	134	793	
STD	4500	.26	34.693	27.87	25.31	1.455	15260						
OBS	4577	.25	34.691	27.86			15250	512	236	320	134	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	319	23JUN1964	1713	6158S	13007W	4751	529	10	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		320	3	-2.7	-6.0	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.67	34.082	27.35	73.82	0.000	14511						
OBS	1	.67	34.082	27.35			14511	780	210	262	43	807	
STD	10	.67	34.072	27.34	74.54	.007	14512						
STD	20	.66	34.064	27.34	75.11	.015	14513						
OBS	28	.66	34.060	27.33			14514	783	205	270	41	809	
STD	30	.66	34.060	27.33	75.37	.022	14515						
STD	50	.70	34.061	27.33	75.45	.038	14520						
OBS	55	.71	34.063	27.33			14521	781	215	277	43	809	
STD	75	.69	34.066	27.34	75.26	.056	14523						
OBS	80	.68	34.066	27.34			14524	782	216	276	47	812	
STD	100	.67	34.061	27.33	75.22	.075	14527						
OBS	105	.67	34.060	27.33			14527	781	215	271	44	811	
STD	150	.71	34.066	27.33	75.10	.113	14537						
OBS	158	.73	34.078	27.34			14539	773	215	277	55	811	
STD	200	.87	34.285	27.50	59.47	.146	14555						
OBS	210	.91	34.341	27.54			14559	568	264	318	71	803	
STD	250	1.20	34.458	27.62	48.81	.173	14580						
STD	300	1.57	34.549	27.66	44.80	.197	14606						
OBS	316	1.68	34.565	27.67			14614	445	262	333	78	800	
STD	400	1.85	34.650	27.72	40.11	.239	14636						
OBS	425	1.86	34.664	27.74			14641	433	243	328	88	797	
STD	500	1.85	34.691	27.76	36.83	.278	14653						
STD	600	1.79	34.698	27.77	36.64	.315	14667						
OBS	628	1.76	34.704	27.77			14670	441	238	322	91	797	
STD	700	1.75	34.714	27.78	35.15	.350	14681						
STD	800	1.72	34.725	27.79	34.34	.385	14697						
OBS	826	1.71	34.727	27.80			14700	454	240	290	97	798	
STD	900	1.66	34.730	27.80	33.72	.419	14710						
STD	1000	1.57	34.731	27.81	33.35	.453	14723						
OBS	1027	1.55	34.732	27.81			14726	459	235	289	104	799	
OBS	1212	1.41	34.729	27.82			14751	460	237	295	109	798	
STD	1250	1.38	34.729	27.82	31.94	.534	14756						
OBS	1464	1.24	34.725	27.83			14785	466	233	289	116	798	
STD	1500	1.22	34.724	27.83	31.64	.614	14790						
OBS	1708	1.09	34.715	27.83			14819	473	209	292	116	797	
STD	1750	1.07	34.713	27.83	31.09	.692	14825						
OBS	1951	.96	34.708	27.83			14853	483	242	304	125	797	
STD	2000	.93	34.707	27.84	31.10	.770	14860						
OBS	2194	.83	34.707	27.84			14888	481	235	304	127	796	
STD	2250	.81	34.707	27.84	30.01	.846	14897						
OBS	2439	.75	34.708	27.85			14926	485	244	310	129	795	
STD	2500	.73	34.707	27.85	30.21	.922	14936						
OBS	2684	.67	34.701	27.85			14964	486	218	321	132	796	
STD	2750	.64	34.698	27.85	29.57	.996	14974						
OBS	2926	.57	34.692	27.85			15001	495	193	315	133	795	
STD	3000	.54	34.691	27.85	29.38	1.070	15012						
STD	3250	.45	34.689	27.85	28.14	1.142	15051						
OBS	3402	.40	34.689	27.85			15075	502	233	323	136	794	
STD	3500	.38	34.689	27.86	27.78	1.212	15091						
STD	3750	.35	34.691	27.86	26.53	1.280	15133						
OBS	3885	.34	34.692	27.86			15156	511	225	325	139	795	
STD	4000	.33	34.693	27.86	26.09	1.346	15175						
STD	4500	.29	34.699	27.87	25.47	1.474	15261						
OBS	4535	.29	34.699	27.87			15268	515	236	325	139	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 13	320	25 JUN 1964	920	5922S	13028W	3837	493	90	22

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
280	8	-3.5	-7.5	0	8

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.43	33.926	27.18	90.32	0.000	14543						
OBS	2	1.43	33.926	27.18			14543	777	205	272	24	809	
STD	10	1.43	33.918	27.17	90.94	.009	14544						
STD	20	1.43	33.911	27.16	91.45	.018	14546						
OBS	25	1.43	33.909	27.16			14546	771	201	277	25	811	
STD	30	1.44	33.909	27.16	91.66	.027	14548						
OBS	45	1.46	33.911	27.16			14551	771	209	271	24	813	
STD	50	1.46	33.911	27.16	91.61	.046	14552						
OBS	68	1.44	33.911	27.16			14554	765	215	271	25	813	
STD	75	1.44	33.910	27.16	91.84	.069	14555						
OBS	90	1.45	33.911	27.16			14558	766	216	272	25	812	
STD	100	1.45	33.913	27.16	91.39	.092	14559						
OBS	133	1.44	33.956	27.20			14565	751	223	275	30	811	
STD	150	1.47	34.019	27.25	83.65	.135	14570						
OBS	176	0.00	34.124	0.00			0	651	223	319	43	809	
STD	200	1.59	34.178	27.37	72.52	.174	14586						
STD	250	1.73	34.257	27.42	67.83	.209	14601						
OBS	266	1.78	34.272	27.43			14593	541	254	329	54	801	
STD	300	1.83	34.319	27.46	64.16	.242	14614						
OBS	362	1.91	34.395	27.52			14616	480	248	330	66	799	
STD	400	1.99	34.435	27.54	57.39	.303	14639						
STD	500	2.17	34.522	27.60	52.24	.358	14665						
OBS	547	2.24	34.554	27.62			14663	412	231	332	81	796	
STD	600	2.24	34.583	27.64	49.29	.409	14685						
STD	700	2.20	34.627	27.68	45.82	.456	14700						
OBS	734	2.17	34.638	27.69			14691	412	229	328	86	797	
STD	800	2.18	34.658	27.71	43.61	.501	14716						
STD	900	2.15	34.683	27.73	42.01	.544	14731						
OBS	930	2.14	34.689	27.73			14723	424	226	319	86	799	
STD	1000	2.05	34.704	27.75	40.02	.585	14744						
OBS	1007	2.04	34.705	27.75			14731	429	230	311	88	798	
OBS	1222	1.92	34.721	27.78			14762	436	225	308	93	798	
STD	1250	1.90	34.723	27.78	37.61	.682	14778						
OBS	1442	1.75	34.731	27.80			14791	447	228	304	101	798	
STD	1500	1.70	34.732	27.80	36.16	.774	14811						
OBS	1660	1.57	34.731	27.81			14819	457	229	304	105	798	
STD	1750	1.50	34.731	27.82	34.51	.862	14844						
OBS	1875	1.40	34.730	27.82			14847	463	226	297	110	796	
STD	2000	1.29	34.727	27.83	33.76	.948	14876						
OBS	2091	1.22	34.724	27.83			14876	470	219	299	110	796	
STD	2250	1.13	34.722	27.83	32.71	1.031	14911						
OBS	2295	1.11	34.722	27.84			14905	472	215	299	120	796	
STD	2500	.99	34.725	27.85	32.06	1.112	14947						
OBS	2523	.98	34.725	27.85			14938	477	217	310	121	797	
STD	2750	.88	34.710	27.84	31.65	1.191	14984						
OBS	2769	.87	34.709	27.84			14974	481	217	317	127	795	
OBS	2997	.81	34.707	27.84			15011	488	224	317	129	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	321	26 JUN 1964	1040	5907S	12929W	3813	492	99	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		260	5	0.0	-2.0	0	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x 10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	2.30	33.959	27.14	94.02	0.000	14582						
OBS	2	2.30	33.959	27.14			14582	742	188	267	17	807	
STD	10	2.30	33.951	27.13	94.63	.009	14583						
STD	20	2.31	33.944	27.12	95.22	.019	14585						
STD	30	2.31	33.939	27.12	95.63	.028	14587						
OBS	31	2.31	33.939	27.12			14586	749	174	272	16	807	
STD	50	2.32	33.939	27.12	95.79	.048	14590						
OBS	62	2.32	33.941	27.12			14592	744	184	275	16	809	
STD	75	2.30	33.943	27.12	95.67	.072	14594						
OBS	85	2.29	33.943	27.12			14594	745	185	271	15	814	
STD	100	2.29	33.933	27.12	96.09	.096	14597						
OBS	114	2.31	33.931	27.11			14600	746	188	274	12	814	
STD	150	2.63	34.037	27.17	91.25	.142	14621						
OBS	163	2.73	34.085	27.20			14628	645	194	275	19	812	
STD	200	2.48	34.149	27.27	81.78	.186	14624						
OBS	219	2.31	34.171	27.31			14620	603	210	317	34	810	
STD	250	2.36	34.190	27.32	77.97	.226	14628						
STD	300	2.52	34.212	27.32	77.96	.265	14643						
OBS	330	2.67	34.222	27.32			14654	564	219	328	42	807	
STD	400	2.58	34.298	27.38	72.76	.340	14663						
OBS	447	2.46	34.354	27.44			14666	479	208	328	53	800	
STD	500	2.40	34.399	27.48	63.59	.408	14673						
STD	600	2.33	34.469	27.54	58.71	.469	14687						
OBS	656	2.31	34.500	27.57			14695	420	209	326	73	799	
STD	700	2.30	34.524	27.59	54.50	.526	14703						
STD	800	2.29	34.573	27.63	51.01	.579	14719						
OBS	855	2.28	34.597	27.65			14728	409	204	316	81	798	
STD	900	2.27	34.619	27.67	47.96	.628	14736						
STD	1000	2.26	34.668	27.71	44.80	.674	14752						
OBS	1057	2.18	34.675	27.72			14758	418	203	321	85	798	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	322	27 JUN 1964	155	5759S	13005W	3884	493	70	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR		ST					
		20	8	3.7	.4	0		7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.62	33.965	27.02	104.74	0.000	14639						
OBS	2	3.62	33.965	27.02			14639	731	174	262	14	809	
STD	10	3.63	33.959	27.02	105.33	.011	14640						
STD	20	3.63	33.953	27.01	105.83	.021	14642						
OBS	27	3.63	33.950	27.01			14643	730	169	270	19	810	
STD	30	3.63	33.950	27.01	106.13	.032	14644						
OBS	50	3.61	33.949	27.01			14646	730	171	274	18	812	
STD	50	3.61	33.949	27.01	106.11	.053	14646						
STD	75	3.60	33.948	27.01	106.51	.079	14650						
OBS	78	3.60	33.948	27.01			14650	731	175	271	15	813	
STD	100	3.54	33.956	27.02	105.19	.106	14651						
OBS	104	3.53	33.958	27.03			14651	730	179	274	13	815	
STD	150	3.44	33.948	27.03	105.12	.159	14655						
OBS	154	3.43	33.948	27.03			14655	736	177	278	18	812	
STD	200	3.36	33.997	27.07	101.08	.210	14660						
OBS	208	3.35	34.007	27.08			14661	687	193	281	25	811	
STD	250	3.44	34.029	27.09	99.81	.260	14672						
STD	300	3.53	34.056	27.10	99.14	.310	14684						
OBS	312	3.55	34.062	27.11			14687	628	195	317	24	807	
STD	400	3.20	34.177	27.23	87.79	.403	14688						
OBS	422	3.09	34.207	27.27			14687	545	192	317	32	800	
STD	500	2.91	34.270	27.33	78.05	.486	14693						
STD	600	2.76	34.326	27.39	73.49	.562	14704						
OBS	629	2.73	34.337	27.40			14707	472	176	222	53	799	
STD	700	2.59	34.351	27.43	70.14	.634	14713						
STD	800	2.43	34.398	27.48	65.51	.702	14723						
OBS	825	2.40	34.414	27.49			14726	434	225	328	62	798	
STD	900	2.38	34.519	27.58	56.43	.763	14739						
OBS	906	2.38	34.527	27.58			14740	421	225	315	86	797	
STD	1000	2.36	34.532	27.59	55.93	.819	14755						
OBS	1025	2.35	34.527	27.59			14758	416	230	321	75	797	
OBS	1170	2.27	34.647	27.69			14780	412	220	304	91	797	
STD	1250	2.23	34.675	27.71	44.65	.945	14792						
OBS	1436	2.13	34.696	27.74			14819	427	212	307	93	798	
STD	1500	2.09	34.704	27.75	42.46	1.054	14828						
OBS	1695	1.97	34.723	27.77			14855	441	217	302	95	798	
STD	1750	1.92	34.728	27.78	39.56	1.156	14862						
OBS	1954	1.74	34.733	27.80			14888	451	222	301	102	796	
STD	2000	1.70	34.725	27.80	38.60	1.254	14894						
OBS	2223	1.50	34.693	27.79			14922	463	219	295	109	796	
STD	2250	1.48	34.697	27.79	38.75	1.350	14926						
OBS	2477	1.32	34.731	27.83			14958	469	212	301	113	795	
STD	2500	1.30	34.731	27.83	35.46	1.443	14961						
OBS	2650	1.20	34.727	27.83			14982	475	212	299	122	795	
STD	2750	1.15	34.723	27.83	34.24	1.530	14996						
STD	3000	1.04	34.711	27.83	34.48	1.616	15034						
OBS	3024	1.03	34.710	27.83			15038	479	212	308	123	796	
STD	3250	.93	34.703	27.83	33.64	1.701	15072						
OBS	3291	.91	34.702	27.83			15078	484	216	316	132	794	
STD	3500	.83	34.689	27.86	27.78	1.212	15091						
STD	3750	.78	34.691	27.86	26.53	1.280	15133						
OBS	3764	.78	34.668	27.81			15154	491	221	321	139	793	2

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	323	27JUN1964	1736	5722S	13013W	4043	493	70	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		330	6	4.4	-2.5	0	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	4.06	33.996	27.00			14658	718	178	266	12	810	
STD	0	4.06	33.996	27.00	106.59	0.000	14658						
STD	10	4.06	33.987	27.00	107.38	.011	14659						
STD	20	4.07	33.980	26.99	108.00	.021	14661						
OBS	28	4.07	33.976	26.99			14662	722	174	269	17	812	
STD	30	4.07	33.975	26.99	108.43	.032	14663						
OBS	49	4.07	33.972	26.98			14666	719	173	272	17	813	
STD	50	4.07	33.972	26.98	108.80	.054	14666						
OBS	75	4.05	33.973	26.99			14669	722	179	275	17	814	
STD	75	4.05	33.973	26.99	108.95	.081	14669						
OBS	99	4.06	33.975	26.99			14673	719	177	273	18	817	
STD	100	4.06	33.974	26.99	108.87	.108	14673						
OBS	145	4.07	33.975	26.99			14681	716	180	273	21		
STD	150	4.09	33.989	27.00	108.44	.163	14683						
OBS	194	4.21	34.122	27.09			14697	676	187	278	25	815	
STD	200	4.18	34.125	27.09	99.63	.215	14697						
STD	250	3.91	34.130	27.13	96.96	.264	14694						
OBS	291	3.61	34.101	27.13			14687	653	193	285	30	809	
STD	300	3.58	34.106	27.14	95.88	.312	14687						
OBS	394	3.37	34.177	27.22			14694	578	198	290	37	807	
STD	400	3.35	34.181	27.22	88.95	.405	14695						
STD	500	3.07	34.243	27.30	81.63	.490	14700						
OBS	594	2.83	34.297	27.36			14705	501	198	320	51	798	
STD	600	2.82	34.301	27.37	75.95	.569	14706						
STD	700	2.65	34.361	27.43	70.04	.642	14716						
OBS	784	2.55	34.412	27.48			14726	448	233	332	61	798	
STD	800	2.53	34.422	27.49	64.74	.709	14728						
STD	900	2.44	34.480	27.54	59.90	.771	14741						
OBS	981	2.38	34.527	27.58			14752	423	231	334	73	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	324	28 JUN 1964	215	5639S	13004W	3700	493	60	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	6	4.5	-0.5	0	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu g-at/l$	NITR $\mu g-at/l$	SILIC $\mu g-at/l$	pH	DD
STD	0	4.25	34.005	26.99	107.80	0.000	14666						
OBS	1	4.25	34.005	26.99			14666	717	153	255	13	810	
STD	10	4.23	33.999	26.99	108.17	.011	14667						
STD	20	4.22	33.994	26.99	108.52	.022	14668						
OBS	27	4.22	33.991	26.98			14668	714	176	250	17	813	
STD	30	4.22	33.990	26.98	108.79	.032	14669						
OBS	49	4.23	33.989	26.98			14672	714	175	247	13	813	
STD	50	4.23	33.989	26.98	109.12	.054	14673						
OBS	75	4.22	33.989	26.98			14676	717	177	262	12	812	
STD	75	4.22	33.989	26.98	109.45	.082	14676						
STD	100	4.22	33.988	26.98	109.46	.109	14680						
OBS	101	4.22	33.988	26.98			14680	717	179	260	14	812	
OBS	149	4.38	34.029	27.00			14695	700	178	259	17	813	
STD	150	4.38	34.031	27.00	108.29	.163	14696						
OBS	199	4.18	34.118	27.09			14696	668	181	265	18	811	
STD	200	4.18	34.118	27.09	100.05	.215	14696						
STD	250	3.97	34.133	27.12	97.33	.265	14696						
OBS	296	3.83	34.129	27.13			14697	628	185	267	21	809	
STD	300	3.83	34.132	27.14	96.43	.313	14698						
STD	400	3.80	34.211	27.20	91.24	.407	14714						
OBS	404	3.80	34.215	27.20			14715	553	186	279	29	808	
STD	500	3.33	34.255	27.28	83.35	.494	14711						
OBS	582	2.88	34.284	27.35			14705	507	222	308	35	798	
STD	600	2.83	34.295	27.36	76.44	.574	14706						
STD	700	2.62	34.362	27.43	69.68	.647	14714						
OBS	759	2.56	34.404	27.47			14722	453	231	310	42	799	
STD	800	2.52	34.430	27.49	64.01	.714	14728						
STD	900	2.50	34.492	27.55	59.66	.776	14744						
OBS	939	2.51	34.515	27.56			14751	415	239	309	58	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	325	28JUN1964	1107	5540S	12945W	3661	492	59	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		320	4	4.5	4.3	0	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	4.08	33.962	26.98	109.35	0.000	14658						
OBS	2	4.08	33.962	26.98			14658	722	155	238	10	811	
STD	10	4.08	33.961	26.97	109.49	.011	14660						
STD	20	4.08	33.960	26.97	109.64	.022	14661						
OBS	27	4.08	33.959	26.97			14662	722	171	245	10	816	
STD	30	4.08	33.959	26.97	109.81	.033	14663						
STD	50	4.10	33.957	26.97	110.20	.055	14667						
OBS	53	4.10	33.957	26.97			14667	719	181	243	11	816	
OBS	75	4.07	33.956	26.97			14669	718	183	245	12	816	
STD	75	4.07	33.956	26.97	110.42	.082	14670						
OBS	99	4.09	33.961	26.97			14674	721	176	249	15	816	
STD	100	4.09	33.961	26.97	110.20	.110	14675						
OBS	148	4.19	33.984	26.98			14686	715	171	252	17	815	
STD	150	4.20	33.990	26.98	109.55	.165	14688						
OBS	197	4.50	34.137	27.07			14709	657	166	268	17	811	
STD	200	4.49	34.140	27.07	101.81	.218	14710						
STD	250	4.29	34.165	27.11	98.22	.268	14710						
OBS	294	3.94	34.150	27.14			14702	613	206	266	19	809	6
STD	300	3.91	34.154	27.14	95.61	.316	14702						
OBS	395	3.45	34.217	27.24			14698	576	177	282	26	805	
STD	400	3.43	34.219	27.24	86.86	.408	14698						
STD	500	3.03	34.252	27.31	80.48	.491	14698						
OBS	584	2.77	34.278	27.35			14701	527	233	286	26	800	
STD	600	2.74	34.288	27.36	76.10	.569	14702						
STD	700	2.60	34.356	27.43	69.91	.642	14713						
OBS	776	2.54	34.411	27.48			14724	455	234	313	40	799	
STD	800	2.51	34.423	27.49	64.43	.710	14727						
STD	900	2.44	34.476	27.54	60.22	.772	14741						
OBS	972	2.41	34.516	27.57			14752	421	262	317	46	795	
STD	1000	2.41	34.537	27.59	56.14	.830	14757						
OBS	1035	2.42	34.561	27.61			14763	410		326	56	797	
OBS	1156	2.36	34.606	27.65			14781	408	253	325	72	795	
STD	1250	2.32	34.633	27.67	48.67	.961	14795						
OBS	1372	2.26	34.663	27.70			14813	415	243	318	80	795	
STD	1500	2.21	34.699	27.74	44.18	1.077	14833						
OBS	1586	2.17	34.719	27.75			14845	424	247	313	85	796	
STD	1750	2.04	34.738	27.78	40.24	1.183	14868						
OBS	1801	2.00	34.740	27.79			14874	437	249	301	92	796	
STD	2000	1.83	34.738	27.80	39.19	1.282	14900						
OBS	2008	1.82	34.738	27.80			14901	475	253	303	93	797	4
OBS	2232	1.60	34.738	27.81			14929	458	241	301	100	798	
STD	2250	1.58	34.737	27.82	37.02	1.377	14931						
OBS	2459	1.39	34.730	27.82			14958	456	228	303	105	797	
STD	2500	1.37	34.729	27.82	36.42	1.469	14964						
OBS	2705	1.28	34.726	27.83			14995	467	232	311	110	797	
STD	2750	1.26	34.726	27.83	35.53	1.559	15001						
OBS	2957	1.16	34.723	27.83			15032	471	232	313	116	797	
STD	3000	1.13	34.722	27.84	34.87	1.647	15038						
OBS	3065	1.07	34.721	27.84			15047	476	236	320	120	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 13	326	29 JUN 1964	1721	5436S	12943W	3480	492	49	23				
			WIND DIR 170	FORCE 7	AIR TEMP 2.3	DEW POINT 2.3	SEA DIR 0	ST 6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	6.30	34.223	26.92	114.37	0.000	14753						
OBS	3	6.30	34.223	26.92			14753	681	147	244	8	810	
STD	10	6.30	34.216	26.92	115.01	.011	14754						
STD	20	6.30	34.208	26.91	115.75	.023	14756						
OBS	25	6.30	34.204	26.91			14756	680	151	241	8	813	
STD	30	6.30	34.201	26.91	116.32	.035	14757						
OBS	49	6.29	34.193	26.90			14759	680	146	244	12	814	
STD	50	6.29	34.193	26.90	117.03	.058	14760						
OBS	69	6.19	34.187	26.91			14758	681	154	254	14	813	
STD	75	6.17	34.184	26.91	116.75	.087	14759						
OBS	92	6.12	34.177	26.91			14759	683	154	256	12	811	
STD	100	6.07	34.173	26.91	116.45	.116	14759						
OBS	138	6.02	34.172	26.92			14762	686	154	256	12	812	
STD	150	6.17	34.183	26.91	117.60	.175	14771						
OBS	185	6.69	34.227	26.87			14797	667	151	258	15	808	
STD	200	6.78	34.252	26.88	120.99	.234	14804						
STD	250	6.85	34.320	26.93	117.58	.294	14816						
OBS	280	6.70	34.348	26.97			14815	627	152	269	18	804	
STD	300	6.52	34.338	26.98	112.65	.352	14811						
OBS	379	5.68	34.268	27.04			14789	614	180	278	18	802	
STD	400	5.55	34.261	27.05	107.54	.462	14787						
STD	500	5.02	34.243	27.10	102.91	.567	14782						
OBS	575	4.72	34.249	27.13			14781	561	171	295	19	798	
STD	600	4.55	34.247	27.15	98.55	.668	14778						
STD	700	3.92	34.254	27.22	91.43	.763	14768						
OBS	768	3.54	34.269	27.27			14763	525	212	315	36	797	
STD	800	3.50	34.292	27.30	84.52	.851	14768						
STD	900	3.36	34.359	27.36	78.72	.932	14779						
OBS	961	3.27	34.396	27.40			14785	448	217	321	52	797	
STD	1000	3.08	34.399	27.42	73.43	1.008	14784						
OBS	1031	2.92	34.400	27.44			14782	449	235	330	53	796	
STD	1250	2.55	34.489	27.54	61.87	1.178	14803						
OBS	1274	2.55	34.502	27.55			14807	419	250	332	66	796	
STD	1500	2.43	34.592	27.63	54.59	1.323	14841						
OBS	1517	2.43	34.598	27.64			14843	405	249	326	76	794	
STD	1750	2.30	34.660	27.70	48.93	1.452	14878						
OBS	1782	2.28	34.667	27.70			14882	410	247	324	85	793	
STD	2000	2.16	34.715	27.75	44.87	1.570	14914						
OBS	2010	2.15	34.717	27.75			14915	422	239	312	87	795	
STD	2250	2.00	34.738	27.78	42.20	1.679	14949						
OBS	2290	1.97	34.739	27.79			14954	435	237	304	88	796	
STD	2500	1.85	34.745	27.80	41.44	1.783	14985						
OBS	2560	1.81	34.745	27.80			14993	441	236	301	94	795	
STD	2750	1.69	34.740	27.81	40.10	1.885	15020						
OBS	2835	1.63	34.737	27.81			15032	449	238	295	102	794	
STD	3000	1.49	34.729	27.81	39.36	1.984	15054						
OBS	3110	1.41	34.724	27.82			15069	453	242	306	109	794	
STD	3250	1.36	34.721	27.82	38.38	2.082	15091						
OBS	3295	1.35	34.721	27.82			15098	458	246	313	109	794	
OBS	3445	1.33	34.721	27.82			15123	455	249	317	114	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	327	2AUG1964	1125	5001S	15953W	5113	495	9	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		230	5	5.7	.6	240	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	7.92	34.511	26.92			14820	656	123	145	5	811	
STD	0	7.92	34.511	26.92	114.34	0.000	14820						
STD	10	7.95	34.507	26.91	115.23	.011	14823						
STD	20	7.97	34.505	26.91	115.80	.023	14825						
OBS	23	7.97	34.504	26.91			14825	650	116	137	8	811	
STD	30	7.96	34.504	26.91	115.89	.035	14826						
OBS	46	7.93	34.503	26.91			14828	648	121	136	8	814	
STD	50	7.93	34.502	26.91	115.91	.058	14828						
OBS	66	7.94	34.498	26.91			14831	647	119	142	9	815	
STD	75	7.94	34.497	26.91	117.03	.087	14832						
OBS	90	7.93	34.496	26.91			14834	648	119	148	7	817	
STD	100	7.92	34.496	26.91	117.03	.116	14836						
OBS	138	7.86	34.488	26.91			14839	647	116	147	10	817	
STD	150	7.83	34.480	26.91	117.71	.175	14840						
OBS	183	7.72	34.454	26.91			14841	648	124	152	10	814	
STD	200	7.63	34.443	26.91	118.48	.234	14840						
STD	250	7.38	34.419	26.93	117.53	.293	14838						
OBS	275	7.25	34.411	26.94			14837	625	141	177	11	813	
STD	300	7.18	34.411	26.95	116.26	.351	14838						
OBS	369	7.03	34.415	26.98			14843	609	146	204	11	812	
STD	400	6.93	34.407	26.98	114.73	.467	14844						
STD	500	6.52	34.373	27.01	112.55	.580	14844						
OBS	554	6.26	34.349	27.03			14842	577	165	236	13	811	
STD	600	6.00	34.329	27.04	110.67	.692	14839						
STD	700	5.43	34.297	27.09	106.53	.801	14832						
OBS	763	5.07	34.284	27.12			14827	552	186	268	22	806	
STD	800	4.89	34.289	27.15	101.18	.905	14826						
STD	900	4.45	34.312	27.21	94.92	1.003	14824						
OBS	967	4.18	34.336	27.26			14824	491	224	300	39	803	
STD	1000	4.04	34.344	27.28	88.70	1.094	14824						
STD	1250	3.20	34.412	27.42	74.89	1.299	14830						
OBS	1401	2.84	34.462	27.49			14840	431	231	334	68	796	
STD	1500	2.71	34.505	27.54	64.19	1.473	14852						
OBS	1593	2.62	34.544	27.58			14864	414	239	344	73	802	
STD	1750	2.49	34.595	27.63	56.05	1.623	14885						
OBS	1812	2.45	34.612	27.65			14894	404	233	343	84	797	
STD	2000	2.31	34.662	27.70	50.63	1.756	14919						
OBS	2009	2.30	34.664	27.70			14921	413	230	330	81	796	
OBS	2234	2.23	34.717	27.75			14956	427	224	319	87	794	
STD	2250	2.22	34.719	27.75	46.44	1.878	14958						
OBS	2455	2.08	34.735	27.77			14987	437	217	318	90	797	
STD	2500	2.05	34.737	27.78	44.70	1.992	14993						
STD	2750	1.87	34.743	27.80	42.38	2.101	15028						
OBS	2933	1.74	34.743	27.81			15054	456	212	311	103	795	
STD	3000	1.69	34.743	27.81	41.14	2.205	15062						
STD	3250	1.50	34.739	27.82	39.20	2.305	15097						
OBS	3392	1.40	34.735	27.83			15117	472	218	317	108	794	
STD	3500	1.32	34.730	27.83	38.19	2.402	15132						
STD	3750	1.15	34.720	27.83	36.19	2.495	15167						
OBS	3881	1.08	34.716	27.83			15188	482	228	319	113	794	
STD	4000	1.05	34.717	27.84	35.27	2.584	15206						
OBS	4360	1.01	34.723	27.84			15268	489	220	323	125	793	
STD	4500	1.00	34.722	27.84	35.28	2.761	15291						
OBS	4943	1.03	34.710	27.83			15371	486	233	331	128	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 14	328	3AUG1964	1951	5203S	15958W	4689	495	29	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			170	4	3.6	-0.7	230	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔΔ DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	6.76	34.363	26.97	109.72	0.000	14773						
OBS	1	6.76	34.363	26.97			14773	668	132	178	11	812	
STD	10	6.76	34.358	26.97	110.27	.011	14774						
STD	20	6.77	34.351	26.96	110.93	.022	14776						
OBS	26	6.77	34.347	26.96			14777	673	138	178	10	819	
STD	30	6.74	34.342	26.96	111.36	.033	14776						
STD	50	6.60	34.326	26.96	110.96	.055	14774						
OBS	51	6.59	34.326	26.96			14774	669	137	192	13	818	
STD	75	6.67	34.351	26.97	110.59	.083	14781						
OBS	76	6.67	34.352	26.97			14781	673	133	184	12	818	
OBS	100	6.63	34.337	26.97			14783	668	140	183	14	818	
STD	100	6.63	34.337	26.97	111.25	.111	14783						
STD	150	6.56	34.331	26.97	111.49	.167	14789						
OBS	151	6.56	34.331	26.97			14788	667	131	187	14	820	
STD	200	6.56	34.329	26.97	112.33	.222	14797						
OBS	201	6.56	34.329	26.97			14797	668	138	187	16	819	
STD	250	6.49	34.329	26.98	112.10	.279	14802						
STD	300	6.32	34.324	27.00	111.12	.334	14803						
OBS	301	6.32	34.324	27.00			14803	642	157	211	18	816	
STD	400	5.72	34.281	27.04	108.08	.444	14794						
OBS	401	5.71	34.281	27.04			14794	626	158	224	20	816	
STD	500	5.14	34.244	27.08	104.28	.550	14786						
STD	600	4.64	34.229	27.13	101.00	.653	14782						
OBS	602	4.63	34.229	27.13			14782	597	183	267	22	813	
STD	700	4.30	34.263	27.19	95.11	.751	14785						
STD	800	4.02	34.314	27.26	88.76	.843	14790						
OBS	802	4.01	34.315	27.26			14790	513	211	291	34	804	
STD	900	3.68	34.353	27.33	82.72	.929	14792						
OBS	997	3.36	34.385	27.38			14795	466	219	318	51	802	
STD	1000	3.35	34.386	27.38	77.49	1.009	14795						
OBS	1130	3.00	34.411	27.44			14802	461	232	328	57	802	
STD	1250	2.82	34.463	27.49	66.82	1.189	14815						
OBS	1372	2.71	34.523	27.55			14831	420	245	344	78	797	
STD	1500	2.57	34.569	27.60	57.83	1.345	14847						
OBS	1618	2.46	34.605	27.64			14862	410	244	343	84	796	
STD	1750	2.37	34.638	27.67	51.43	1.481	14880						
OBS	1867	2.31	34.663	27.70			14898	423	227	330	87	797	
STD	2000	2.24	34.689	27.72	47.82	1.605	14917						
OBS	2121	0.00	34.709	0.00			0	440	224	319	91	799	
STD	2250	2.10	34.727	27.77	44.29	1.721	14953						
OBS	2370	2.03	34.740	27.78			14909	448	212	315	98	799	
STD	2500	1.94	34.746	27.79	42.60	1.829	14989						
STD	2750	1.76	34.744	27.81	40.77	1.933	15023						
OBS	2884	1.66	34.746	27.82			14980	466	224	304	110	800	
STD	3000	1.58	34.745	27.82	39.44	2.034	15058						
STD	3250	1.42	34.742	27.83	37.74	2.130	15093						
OBS	3390	1.33	34.739	27.83			15051	485	226	312	114	796	
STD	3500	1.25	34.735	27.84	36.89	2.223	15129						
STD	3750	1.10	34.726	27.84	34.96	2.313	15165						
OBS	3903	1.02	34.721	27.84			15126	491	224	315	124	795	
STD	4000	.99	34.719	27.84	34.33	2.400	15204						
OBS	4408	.96	34.715	27.84			15211	496	226	319	133	793	
STD	4500	.96	34.715	27.84	35.07	2.573	15290						
OBS	4688	.98	34.717	27.84			15261	496	224	315	129	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	329	5AUG1964	840	5400S	15958W	4278	495	49	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		185	3	1.8	-2.0	200	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.29	34.106	27.07			14669	716	169	224	10	809	
STD	0	4.29	34.106	27.07	100.60	0.000	14669						
STD	10	4.29	34.100	27.06	101.10	.010	14670						
STD	20	4.29	34.096	27.06	101.49	.020	14672						
OBS	26	4.29	34.094	27.06			14673	716	158	228	9	812	
STD	30	4.29	34.093	27.06	101.73	.030	14673						
STD	50	4.28	34.092	27.06	101.90	.051	14676						
OBS	52	4.28	34.092	27.06			14677	719	164	229	8	814	
STD	75	4.29	34.090	27.06	102.54	.076	14681						
OBS	78	4.29	34.090	27.05			14681	715	163	223	7	817	
STD	100	4.30	34.086	27.05	102.94	.102	14685						
OBS	104	4.30	34.085	27.05			14686	716	171	220	12	820	
STD	150	4.28	34.089	27.06	102.89	.153	14692						
OBS	155	4.27	34.089	27.06			14693	716	164	234	12	820	
STD	200	4.18	34.077	27.06	103.27	.205	14696						
OBS	209	4.16	34.074	27.06			14697	715	161	238	13	819	
STD	250	4.00	34.078	27.07	101.78	.256	14697						
STD	300	3.81	34.079	27.10	100.21	.307	14697						
OBS	311	3.77	34.083	27.10			14697	690	174	251	14	819	
STD	400	3.65	34.157	27.17	93.70	.404	14707						
OBS	412	3.64	34.169	27.18			14709	631	188	270	18	818	
STD	500	3.55	34.220	27.23	88.20	.495	14720						
STD	600	3.43	34.269	27.28	84.50	.581	14732						
OBS	615	3.41	34.276	27.29			14733	526	203	307	33	814	
STD	700	3.23	34.332	27.35	78.11	.662	14740						
STD	800	2.99	34.391	27.42	71.71	.737	14747						
OBS	819	2.94	34.401	27.43			14748	459	200	327	52	807	
STD	900	2.75	34.426	27.47	67.20	.807	14754						
OBS	936	2.69	34.439	27.49			14757	440	218	329	73	798	
STD	1000	2.68	34.485	27.52	62.75	.872	14768						
OBS	1022	2.68	34.501	27.54			14772	421	209	329	67	799	
OBS	1179	2.52	34.560	27.60			14791	412	233	337	73	797	
STD	1250	2.47	34.582	27.62	54.03	1.018	14801						
OBS	1429	2.36	34.635	27.67			14827	416	207	325	76	799	
STD	1500	2.32	34.659	27.69	48.38	1.146	14837						
OBS	1682	2.23	34.711	27.74			14864	424	213	326	82	797	
STD	1750	2.19	34.721	27.75	43.17	1.260	14874						
OBS	1943	2.07	34.736	27.78			14901	439	194	316	92	796	
STD	2000	2.03	34.738	27.78	41.68	1.366	14909						
OBS	2198	1.90	34.743	27.80			14937	447	189	307	94	797	
STD	2250	1.86	34.744	27.80	39.98	1.468	14943						
OBS	2456	1.69	34.746	27.81			14971	462	193	308	96	795	
STD	2500	1.66	34.745	27.82	39.01	1.567	14977						
OBS	2730	1.51	34.738	27.82			15009	469	201	314	105	795	
STD	2750	1.50	34.738	27.82	37.73	1.663	15012						
STD	3000	1.32	34.732	27.83	36.84	1.756	15047						
OBS	3249	1.16	34.727	27.84			15082	483	215	316	119	793	
STD	3250	1.16	34.727	27.84	35.15	1.846	15082						
STD	3500	.99	34.722	27.84	34.05	1.933	15118						
STD	3750	.82	34.716	27.85	31.57	2.015	15153						
OBS	3773	.88	34.714	27.84			15160	489	215	315	131	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	330	6AUG1964	1434	5501S	15922W	3795	495	59	23				
			WIND DIR 165	FORCE 5	AIR TEMP 1.5	DEW POINT -1.9	SEA DIR 150	ST 4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	4.21	34.116	27.08			14666	716	174	223	9	815	
STD	0	4.21	34.116	27.08	99.05	0.000	14666						
STD	10	4.21	34.103	27.07	100.04	.010	14667						
STD	20	4.20	34.094	27.07	100.72	.020	14668						
OBS	24	4.20	34.092	27.07			14669	717	159	223	8	816	
STD	30	4.19	34.092	27.07	100.91	.030	14669						
OBS	48	4.18	34.091	27.07			14672	721	171	224	8	816	
STD	50	4.18	34.091	27.07	100.94	.050	14672						
OBS	72	4.19	34.094	27.07			14676	719	157	220	7	817	
STD	75	4.19	34.094	27.07	101.32	.076	14677						
OBS	97	4.20	34.089	27.06			14680	717	159	227	6	816	
STD	100	4.19	34.088	27.06	101.64	.101	14680						
OBS	147	3.94	34.072	27.08			14677	715	160	236	8	815	
STD	150	3.92	34.071	27.08	100.60	.151	14677						
STD	200	3.71	34.069	27.10	99.09	.201	14676						
OBS	201	3.71	34.069	27.10			14676	710	181	243	8	816	
STD	250	3.76	34.095	27.11	98.08	.251	14687						
OBS	300	3.86	34.131	27.13			14699	660	176	256	12	811	
STD	300	3.86	34.131	27.13	96.81	.299	14699						
OBS	400	3.61	34.189	27.20			14706	611	192	275	18	806	
STD	400	3.61	34.189	27.20	90.94	.393	14706						
STD	500	3.36	34.236	27.26	84.95	.481	14712						
STD	600	3.12	34.283	27.32	80.27	.564	14719						
OBS	603	3.11	34.284	27.33			14719	513	227	303	39	798	
STD	700	2.89	34.337	27.39	74.24	.641	14726						
STD	800	2.71	34.396	27.45	68.41	.712	14735						
OBS	809	2.69	34.401	27.46			14736	458	230	336	57	796	
STD	900	2.59	34.460	27.51	62.96	.778	14747						
STD	1000	2.51	34.518	27.57	58.45	.839	14761						
OBS	1012	2.50	34.525	27.57			14763	421	228	341	70	794	
OBS	1108	2.44	34.563	27.61			14776	413	227	331	73	794	
STD	1250	2.37	34.608	27.65	51.07	.976	14797						
OBS	1349	2.33	34.635	27.67			14812	412	235	326	83	794	
STD	1500	2.27	34.673	27.71	46.76	1.098	14835						
OBS	1600	2.23	34.694	27.73			14850	424	225	317	84	794	
STD	1750	2.14	34.716	27.75	42.96	1.210	14871						
OBS	1853	2.07	34.726	27.77			14886	441	210	301	88	794	
STD	2000	1.98	34.737	27.78	41.10	1.315	14906						
OBS	2114	1.90	34.742	27.79			14922	449	208	296	89	793	
STD	2250	1.80	34.746	27.81	39.06	1.415	14941						
OBS	2367	1.71	34.748	27.81			14957	459	214	301	98	794	
STD	2500	1.63	34.748	27.82	38.37	1.512	14975						
OBS	2626	1.55	34.744	27.82			14994	470	215	298	102	793	
STD	2750	1.47	34.730	27.82	37.91	1.608	15010						
OBS	2903	1.36	34.714	27.81			15032	472	216	294	109	792	
STD	3000	1.29	34.716	27.82	37.47	1.702	15045						
OBS	3158	1.18	34.724	27.83			15068	483	213	304	114	793	
STD	3250	1.14	34.724	27.84	35.05	1.792	15081						
OBS	3425	1.07	34.722	27.84			15109	486	216	307	116	792	
STD	3500	1.04	34.720	27.84	34.80	1.880	15120						
OBS	3704	.94	34.714	27.84			15151	488	212	301	120	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	331	7AUG1964	2039	5612S	16027W	4151	496	60	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		105	3	.1	-2.1	145	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.00	34.096	27.09			14656	715	170	231	10	812	
STD	0	4.00	34.096	27.09	98.48	0.000	14656						
STD	10	4.01	34.089	27.08	99.12	.010	14658						
STD	20	4.01	34.084	27.08	99.58	.020	14660						
OBS	25	4.01	34.082	27.08			14661	716	176	231	10	816	
STD	30	4.01	34.081	27.08	99.87	.030	14661						
STD	50	3.99	34.078	27.08	100.05	.050	14664						
OBS	52	3.99	34.078	27.08			14664	716	186	229	9	815	
STD	75	4.01	34.077	27.07	100.70	.075	14669						
OBS	78	4.01	34.077	27.07			14669	714	178	226	10	817	
OBS	99	4.02	34.077	27.07			14673	714	174	218	10	818	
STD	100	4.02	34.077	27.07	100.74	.100	14673						
STD	150	4.05	34.091	27.08	100.44	.150	14683						
OBS	156	4.06	34.094	27.08			14684	691	179	231	13	816	
STD	200	4.24	34.142	27.10	98.93	.200	14699						
OBS	210	4.27	34.153	27.11			14702	650	190	244	13	815	
STD	250	4.15	34.155	27.12	97.48	.249	14704						
STD	300	3.89	34.157	27.15	95.17	.297	14701						
OBS	313	3.81	34.158	27.16			14700	620	194	256	15	811	
STD	400	3.60	34.208	27.22	89.38	.390	14706						
OBS	415	3.57	34.219	27.23			14707	574	218	280	20	808	
STD	500	3.35	34.267	27.29	82.58	.476	14712						
STD	600	3.10	34.321	27.36	77.20	.556	14718						
OBS	620	3.05	34.332	27.37			14720	484	235	322	39	800	
STD	700	2.87	34.373	27.42	71.32	.630	14725						
STD	800	2.68	34.423	27.48	66.11	.699	14734						
OBS	826	2.64	34.436	27.49			14737	442	238	324	56	795	
STD	900	2.57	34.472	27.52	61.90	.763	14746						
STD	1000	2.50	34.520	27.57	58.29	.823	14761						
OBS	1029	2.49	34.534	27.58			14765	416	254	322	73	794	
STD	1250	2.36	34.651	27.68	47.84	.955	14798						
OBS	1300	2.34	34.673	27.70			14805	412	240	320	77	794	
STD	1500	2.24	34.701	27.73	44.36	1.071	14834						
OBS	1545	2.22	34.703	27.74			14841	424	229	298	83	795	
STD	1750	2.09	34.722	27.76	41.95	1.178	14869						
OBS	1796	2.06	34.725	27.77			14876	437	219	307	86	796	
STD	2000	1.93	34.736	27.79	40.57	1.282	14904						
OBS	2047	1.90	34.738	27.79			14911	449	217	296	91	794	
STD	2250	1.77	34.739	27.80	39.19	1.381	14939						
OBS	2304	1.73	34.739	27.81			14947	460	222	297	95	794	
STD	2500	1.57	34.737	27.82	38.50	1.478	14973						
OBS	2556	1.53	34.736	27.82			14981	463	220	296	100	794	
STD	2750	1.40	34.734	27.83	36.69	1.572	15007						
OBS	2813	1.36	34.733	27.83			15017	474	231	297	103	793	
STD	3000	1.27	34.727	27.83	36.38	1.664	15044						
OBS	3079	1.23	34.725	27.83			15056	478	234	305	112	792	
STD	3250	1.13	34.722	27.83	35.10	1.753	15081						
STD	3500	1.00	34.719	27.84	34.43	1.840	15118						
OBS	3594	.96	34.718	27.84			15133	491	238	307	117	792	
STD	3750	.91	34.715	27.84	32.99	1.924	15157						
OBS	3862	.89	34.713	27.84			15176	492	223	307	122	792	
STD	4000	.89	34.713	27.84	33.14	2.007	15200						
OBS	4172	.92	34.715	27.84			15232	485	230	311	122	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	332	9AUG1964	354	5700S	16000W	4446	496	70	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		80	3	- .1	-3.5	110	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.28	33.974	27.15			14581	750	194	261	10	812	
STD	0	2.28	33.974	27.15	92.73	0.000	14581						
STD	10	2.31	33.968	27.14	93.41	.009	14584						
STD	20	2.32	33.964	27.14	93.85	.019	14586						
OBS	25	2.32	33.962	27.14			14587	751	189	257	16	813	
STD	30	2.31	33.961	27.14	94.00	.028	14587						
STD	50	2.27	33.961	27.14	93.75	.047	14588						
OBS	51	2.27	33.961	27.14			14588	750	189	260	13	813	
STD	75	2.22	33.962	27.15	93.59	.070	14590						
OBS	76	2.22	33.962	27.15			14590	750	192	255	13	815	
OBS	100	2.17	33.959	27.15			14592	755	191	259	17	818	
STD	100	2.17	33.959	27.15	93.22	.094	14592						
STD	150	2.12	33.963	27.15	92.69	.140	14598						
OBS	151	2.12	33.963	27.15			14598	754	190	272	21	817	
STD	200	2.09	33.965	27.16	92.44	.186	14605						
OBS	202	2.09	33.966	27.16			14605	754	184	278	23	818	
STD	250	2.15	34.023	27.20	88.83	.232	14616						
STD	300	2.25	34.102	27.25	83.96	.275	14630						
OBS	302	2.26	34.106	27.26			14631	643	212	317	29	808	
STD	400	2.46	34.235	27.34	76.49	.355	14657						
OBS	403	2.47	34.239	27.35			14658	556	231	327	36	806	
STD	500	2.49	34.335	27.42	69.17	.428	14676						
STD	600	2.51	34.399	27.47	65.60	.495	14694						
OBS	604	2.51	34.401	27.47			14695	455	237	356	57	798	
STD	700	2.45	34.408	27.48	64.65	.560	14708						
STD	800	2.38	34.418	27.50	63.49	.625	14721						
OBS	804	2.38	34.419	27.50			14722	416	244	359	68	797	
STD	900	2.35	34.510	27.57	56.80	.685	14737						
STD	1000	2.32	34.609	27.65	49.80	.738	14754						
OBS	1004	2.32	34.613	27.66			14755	407	239	350	71	796	
OBS	1172	2.25	34.664	27.70			14780	417	231	334	73	797	
STD	1250	2.22	34.681	27.72	44.04	.855	14792						
OBS	1437	2.13	34.712	27.75			14819	432	222	330	87	796	
STD	1500	2.09	34.720	27.76	41.23	.962	14828						
OBS	1694	1.95	34.739	27.79			14854	453	227	328	86	797	
STD	1750	1.90	34.742	27.79	38.31	1.061	14862						
OBS	1950	1.74	34.746	27.81			14888	452	222	326	88	796	
STD	2000	1.70	34.747	27.81	37.10	1.156	14895						
OBS	2210	1.56	34.747	27.82			14924	467	217	325	98	796	
STD	2250	1.53	34.746	27.83	35.75	1.247	14929						
OBS	2466	1.38	34.741	27.83			14959	473	214	328	105	795	
STD	2500	1.36	34.741	27.83	35.52	1.336	14964						
OBS	2723	1.25	34.735	27.84			14997	479	235	326	111	794	
STD	2750	1.24	34.733	27.84	34.61	1.423	15000						
OBS	2986	1.11	34.717	27.83			15035	478	222	330	115	794	
STD	3000	1.10	34.717	27.83	34.91	1.510	15037						
STD	3250	.98	34.718	27.84	33.39	1.596	15074						
OBS	3498	.90	34.718	27.85			15114	488	227	335	120	793	
STD	3500	.90	34.718	27.85	33.01	1.679	15114						
STD	3750	.89	34.717	27.85	32.51	1.761	15156						
STD	4000	.88	34.717	27.85	32.72	1.842	15199						
OBS	4013	.88	34.717	27.85			15202	491	225	334	129	792	
STD	4500	.94	34.722	27.85	34.17	2.009	15289						
OBS	4526	.94	34.722	27.85			15295	490	239	328	127	791	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	333	9AUG1964	2154	5718S	16017W	4300	496	70	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			75	4	- .5	-2.1	100	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.69	33.986	27.21	87.52	0.000	14555						
OBS	1	1.69	33.986	27.21			14555	763	185	278	16	815	
STD	10	1.68	33.978	27.20	88.01	.009	14556						
STD	20	1.67	33.973	27.20	88.41	.018	14557						
OBS	24	1.67	33.971	27.19			14558	762	185	275	14	817	
STD	30	1.68	33.971	27.19	88.57	.026	14559						
OBS	48	1.69	33.971	27.19			14562	758	197	276	17	817	
STD	50	1.69	33.971	27.19	88.65	.044	14563						
OBS	71	1.65	33.974	27.20			14564	760	191	278	16	818	
STD	75	1.64	33.975	27.20	88.31	.066	14565						
OBS	95	1.58	33.977	27.21			14565	762	201	277	16	817	
STD	100	1.57	33.977	27.21	87.46	.088	14566						
OBS	142	1.55	33.980	27.21			14572	763	202	280	17	817	
STD	150	1.55	33.985	27.21	86.81	.132	14573						
OBS	189	1.63	34.018	27.24			14583	747	203	287	23	817	
STD	200	1.70	34.033	27.24	84.38	.175	14589						
STD	250	2.03	34.101	27.27	81.97	.216	14612						
OBS	284	2.25	34.148	27.29			14628	618	223	309	33	811	
STD	300	2.26	34.161	27.30	79.60	.257	14631						
OBS	379	2.21	34.218	27.35			14642	576	250	324	37	806	
STD	400	2.23	34.240	27.37	74.11	.333	14647						
STD	500	2.33	34.343	27.44	67.13	.404	14669						
OBS	567	2.41	34.412	27.49			14684	451	253	340	57	801	
STD	600	2.41	34.437	27.51	61.83	.469	14690						
STD	700	2.39	34.504	27.56	56.89	.528	14707						
OBS	755	2.37	34.534	27.59			14715	416	236	352	69	798	
STD	800	2.36	34.558	27.61	52.89	.583	14722						
STD	900	2.33	34.602	27.65	49.78	.634	14738						
OBS	942	2.32	34.618	27.66			14744	411	260	345	75	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	334	10AUG1964	334	5645S	15946W	3809	495	69	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		85	4	1.0	-.7	70	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.97	34.040	27.14			14612	735	164	267	9	821	
STD	0	2.97	34.040	27.14	93.31	0.000	14612						
STD	10	2.98	34.029	27.13	94.26	.009	14614						
STD	20	2.99	34.021	27.13	94.98	.019	14615						
OBS	26	2.99	34.017	27.12			14617	739	179	254	10	819	
STD	30	2.99	34.016	27.12	95.43	.028	14617						
STD	50	2.99	34.012	27.12	95.77	.047	14620						
OBS	51	2.99	34.012	27.12			14620	735	178	266	12	816	
STD	75	3.01	34.010	27.12	96.44	.072	14625						
OBS	77	3.01	34.010	27.12			14625	735	167	256	14	813	
STD	100	3.01	34.013	27.12	96.07	.096	14629						
OBS	103	3.01	34.014	27.12			14630	732	183	256	13	813	
STD	150	2.98	34.012	27.12	96.16	.144	14636						
OBS	154	2.98	34.014	27.12			14637	729	181	255	13	812	
STD	200	2.99	34.112	27.20	89.01	.190	14646						
OBS	210	3.00	34.137	27.22			14648	622	194	291	20	810	
STD	250	3.11	34.186	27.25	84.87	.233	14660						
STD	300	3.23	34.223	27.27	83.65	.276	14674						
OBS	311	3.25	34.227	27.27			14677	578	201	309	28	807	
STD	400	3.08	34.254	27.30	80.81	.358	14684						
OBS	412	3.04	34.256	27.31			14684	534	234	324	33	803	
STD	500	2.86	34.304	27.37	74.89	.436	14691						
STD	600	2.67	34.369	27.43	69.41	.508	14701						
OBS	615	2.65	34.380	27.44			14702	461	219	350	58	799	
STD	700	2.55	34.433	27.49	63.68	.574	14712						
STD	800	2.46	34.492	27.55	58.80	.636	14726						
OBS	821	2.45	34.504	27.56			14729	427	253	348	65	803	
STD	900	2.42	34.546	27.60	54.87	.692	14741						
STD	1000	2.40	34.593	27.63	51.79	.746	14757						
OBS	1025	2.39	34.603	27.64			14761	414	237	350	71	799	
STD	1250	2.26	34.668	27.71	45.48	.867	14793						
OBS	1284	2.24	34.675	27.71			14798	427	226	330	73	799	
STD	1500	2.12	34.714	27.75	42.08	.977	14829						
OBS	1542	2.10	34.719	27.76			14835	442	223	332	80	799	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	335	10AUG1964	750	5625S	15928W	4153	495	69	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			90	5	1.7	-0.1	70	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	3.40	34.054	27.12	96.02	0.000	14630						
OBS	1	3.40	34.054	27.12			14630	734	176	237	15	816	
STD	10	3.40	34.044	27.11	96.77	.010	14632						
STD	20	3.38	34.036	27.10	97.30	.019	14633						
OBS	25	3.37	34.033	27.10			14633	734	166	249	16	816	
STD	30	3.35	34.031	27.10	97.41	.029	14633						
OBS	50	3.26	34.027	27.11			14632	735	170	243	12	818	
STD	50	3.26	34.027	27.11	97.02	.049	14632						
OBS	74	3.25	34.026	27.11			14635	735	173	229	15	819	
STD	75	3.25	34.026	27.11	97.38	.073	14636						
OBS	99	3.24	34.025	27.11			14639	735	176	246	16	819	
STD	100	3.24	34.025	27.11	97.24	.097	14639						
OBS	149	3.07	34.013	27.11			14640	736	205	251	13	819	
STD	150	3.06	34.012	27.11	96.88	.146	14640						
STD	200	2.70	33.982	27.12	96.29	.194	14632						
OBS	202	2.69	33.981	27.12			14631	743	203	256	10	817	
STD	250	2.95	34.053	27.16	93.43	.241	14651						
STD	300	3.33	34.150	27.20	90.12	.287	14677						
OBS	301	3.34	34.152	27.20			14678	629	204	280	25	808	
OBS	400	3.14	34.202	27.26			14686	582	222	289	28	807	
STD	400	3.14	34.202	27.26	85.28	.375	14686						
STD	500	2.97	34.273	27.33	78.35	.457	14696						
STD	600	2.82	34.347	27.40	72.50	.532	14707						
OBS	601	2.82	34.348	27.40			14707	480	238	311	55	797	
STD	700	2.70	34.410	27.46	66.96	.602	14719						
STD	800	2.60	34.465	27.52	62.20	.667	14732						
OBS	805	2.60	34.468	27.52			14732	430	243	331	70	796	
STD	900	2.51	34.516	27.56	58.07	.727	14745						
STD	1000	2.43	34.560	27.61	54.61	.783	14758						
OBS	1007	2.43	34.563	27.61			14759	415	237	331	82	797	
STD	1250	2.31	34.647	27.69	47.50	.911	14795						
OBS	1264	2.30	34.651	27.69			14797	418	222	307	87	796	
STD	1500	2.17	34.701	27.74	43.59	1.024	14831						
OBS	1522	2.16	34.704	27.74			14834	433	224	310	89	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	336	10AUG1964	1317	5555S	15902W	4279	495	69	14				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		100	6	3.0	3.0	70	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	3.89	34.100	27.10	97.12	0.000	14652						
OBS	2	3.89	34.100	27.10			14652	723	164	231	13	817	
STD	10	3.89	34.098	27.10	97.35	.010	14653						
STD	20	3.89	34.094	27.10	97.67	.019	14655						
OBS	23	3.89	34.093	27.10			14655	721	167	232	10	818	
STD	30	3.88	34.090	27.10	98.01	.029	14656						
OBS	44	3.87	34.083	27.09			14658	718	177	235	10	818	
STD	50	3.87	34.081	27.09	98.62	.049	14659						
OBS	65	3.87	34.078	27.09			14661	717	173	235	16	818	
STD	75	3.88	34.077	27.09	99.48	.074	14663						
OBS	87	3.89	34.076	27.09			14665	718	171	229	15	817	
STD	100	3.88	34.079	27.09	99.24	.099	14667						
OBS	132	3.86	34.087	27.10			14671	721	169	224	13	819	
STD	150	3.87	34.081	27.09	99.32	.148	14675						
OBS	181	3.88	34.073	27.08			14680	717	180	226	13	817	
STD	200	3.88	34.090	27.10	99.17	.198	14684						
STD	250	3.84	34.142	27.14	95.35	.246	14691						
OBS	272	3.81	34.168	27.17			14693	643	193	264	22	808	
STD	300	3.72	34.172	27.18	92.33	.293	14694						
OBS	367	3.48	34.170	27.20			14694	603	202	281	24	807	
STD	400	3.40	34.184	27.22	89.13	.384	14697						
STD	500	3.19	34.240	27.28	82.96	.470	14705						
OBS	560	3.09	34.282	27.33			14711	514	217	318	38	799	
STD	600	3.02	34.304	27.35	77.75	.550	14715						
STD	700	2.88	34.359	27.41	72.48	.626	14726						
OBS	759	2.80	34.391	27.44			14732	456	231	332	52	797	
STD	800	2.75	34.415	27.46	67.36	.695	14737						
STD	900	2.63	34.473	27.52	62.44	.760	14749						
OBS	957	2.57	34.504	27.55			14756	424	246	345	70	796	
STD	1000	2.53	34.524	27.57	58.32	.821	14762						
OBS	1211	2.39	34.605	27.65			14791	412	240	329	76	797	
STD	1250	2.37	34.618	27.66	50.31	.957	14797						
OBS	1467	2.27	34.680	27.72			14830	421	228	324	77	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	337	11AUG1964	913	5803S	15958W	4102	495	89	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		80	5	.4	-1.6	80	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	1.68	33.995	27.21	86.77	0.000	14555						
OBS	1	1.68	33.995	27.21			14555	762	187	263	16	819	
STD	10	1.68	33.985	27.20	87.55	.009	14556						
STD	20	1.68	33.977	27.20	88.10	.017	14558						
OBS	21	1.68	33.977	27.20			14558	761	185	264	17	815	
STD	30	1.68	33.976	27.20	88.23	.026	14559						
OBS	41	1.68	33.977	27.20			14561	760	191	266	16	814	
STD	50	1.68	33.978	27.20	88.11	.044	14563						
OBS	62	1.68	33.978	27.20			14564	760	191	266	19	812	
STD	75	1.68	33.977	27.20	88.46	.066	14567						
OBS	84	1.68	33.976	27.20			14568	760	192	265	17	814	
STD	100	1.67	33.980	27.20	87.90	.088	14570						
OBS	127	1.64	33.990	27.21			14573	748	195	264	22	812	
STD	150	1.58	33.993	27.22	86.35	.132	14574						
OBS	175	1.53	33.999	27.23			14576	749	203	280	17	811	
STD	200	1.58	34.016	27.24	84.74	.174	14583						
STD	250	1.79	34.068	27.26	82.59	.216	14601						
OBS	263	1.87	34.085	27.27			14607	680	209	301	29	809	
STD	300	2.09	34.142	27.30	79.58	.257	14623						
OBS	352	2.37	34.224	27.34			14645	580	234	315	36	803	
STD	400	2.45	34.276	27.38	73.33	.333	14657						
STD	500	2.47	34.362	27.44	66.95	.403	14675						
OBS	540	2.42	34.388	27.47			14680	462	236	335	57	798	
STD	600	2.42	34.434	27.51	62.22	.468	14691						
STD	700	2.42	34.501	27.56	57.35	.528	14708						
OBS	736	2.41	34.522	27.58			14713	419	233	335	69	796	
STD	800	2.39	34.554	27.60	53.47	.583	14724						
STD	900	2.35	34.597	27.64	50.41	.635	14739						
OBS	933	2.34	34.609	27.65			14744	409	235	338	74	795	
STD	1000	2.31	34.634	27.68	47.82	.684	14754						
OBS	1169	2.23	34.684	27.72			14779	424	226	318	80	797	
STD	1250	2.20	34.698	27.74	42.61	.797	14791						
OBS	1422	2.12	34.717	27.76			14816	436	223	307	80	796	
STD	1500	2.07	34.726	27.77	40.57	.901	14827						
OBS	1673	1.93	34.740	27.79			14850	448	209	310	89	796	
STD	1750	1.87	34.743	27.80	37.84	.999	14860						
OBS	1926	1.74	34.746	27.81			14884	458	215	312	93	795	
STD	2000	1.68	34.746	27.81	36.89	1.093	14894						
OBS	2187	1.54	34.746	27.82			14919	465	211	313	104	795	
STD	2250	1.48	34.747	27.83	35.16	1.183	14927						
OBS	2440	1.33	34.746	27.84			14952	468	216	314	108	795	
STD	2500	1.30	34.743	27.84	34.56	1.270	14961						
OBS	2698	1.21	34.731	27.84			14991	477	218	316	113	795	
STD	2750	1.18	34.729	27.84	34.24	1.356	14998						
OBS	2969	1.08	34.724	27.84			15031	479	219	318	115	794	
STD	3000	1.06	34.724	27.84	33.91	1.441	15035						
STD	3250	.95	34.721	27.85	32.64	1.524	15073						
OBS	3479	.87	34.718	27.85			15109	491	215	321	120	793	
STD	3500	.87	34.717	27.85	32.59	1.606	15112						
STD	3750	.86	34.712	27.84	32.43	1.687	15155						
OBS	3752	.86	34.712	27.84			15156	490	218	322	129	792	
OBS	3994	.88	34.719	27.85			15199	490	224	325	131	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	338	12AUG1964	1441	5911S	15943W	3791	495	99	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		165	6	0.0	-1.8	120	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	.97	34.071	27.32			14524	761	197	271	34	810	
STD	0	.97	34.071	27.32	76.40	0.000	14524						
OBS	4	.95	34.056	27.31			14524	755	203	279	27	811	
STD	10	.93	34.059	27.32	77.09	.008	14524						
STD	20	.91	34.064	27.32	76.58	.015	14525						
STD	30	.90	34.069	27.33	76.12	.023	14526						
STD	50	.90	34.077	27.33	75.48	.038	14529						
OBS	51	.90	34.079	27.33			14529	757	209	273	34	810	
STD	75	.87	34.079	27.34	75.33	.057	14532						
OBS	78	.87	34.079	27.34			14532	748	211	276	32	809	
STD	100	.83	34.071	27.33	75.42	.076	14534						
OBS	106	.83	34.070	27.33			14535	748	203	277	35	808	
STD	150	1.11	34.105	27.34	74.66	.113	14555						
OBS	159	1.18	34.115	27.34			14560	703	202	283	34	807	
STD	200	1.19	34.140	27.36	72.62	.150	14567						
OBS	215	1.19	34.146	27.37			14570	677	221	298	42	810	
STD	250	1.54	34.146	27.34	74.77	.187	14591						
STD	300	2.05	34.147	27.31	78.94	.225	14622						
OBS	324	2.30	34.147	27.29			14637	487	234	300	63	797	
STD	400	2.19	34.336	27.45	66.55	.298	14647						
OBS	431	2.07	34.423	27.53			14648	470	237	320	66	796	
STD	500	2.11	34.505	27.59	52.98	.358	14662						
STD	600	2.22	34.566	27.63	50.42	.410	14684						
OBS	641	2.29	34.572	27.63			14693	412	240	329	77	798	
STD	700	2.28	34.597	27.65	48.87	.459	14703						
STD	800	2.27	34.631	27.68	46.58	.507	14720						
OBS	850	2.25	34.645	27.69			14727	414	231	332	79	794	
STD	900	2.23	34.664	27.71	44.16	.552	14734						
STD	1000	2.18	34.697	27.74	41.82	.595	14749						
OBS	1035	2.16	34.707	27.75			14754	421	220	315	88	797	
STD	1250	2.05	34.723	27.77	39.12	.697	14785						
OBS	1278	2.03	34.723	27.77			14789	444	217	306	89	796	
STD	1500	1.87	34.737	27.79	37.53	.792	14819						
OBS	1511	1.86	34.738	27.79			14820	451	219	305	90	797	
STD	1750	1.66	34.742	27.81	35.54	.884	14851						
OBS	1767	1.65	34.742	27.81			14854	465	210	307	103	795	
STD	2000	1.47	34.733	27.82	35.41	.972	14884						
OBS	2031	1.45	34.731	27.82			14889	466	213	309	106	795	
STD	2250	1.28	34.725	27.83	34.24	1.059	14918						
OBS	2305	1.24	34.724	27.83			14926	485	217	309	109	795	
STD	2500	1.16	34.722	27.83	34.37	1.145	14955						
OBS	2563	1.14	34.721	27.83			14965	480	224	311	114	794	
STD	2750	1.06	34.718	27.84	33.43	1.230	14992						
OBS	2835	1.02	34.716	27.84			15006	488	218	309	118	794	
STD	3000	.94	34.712	27.84	33.14	1.313	15030						
STD	3250	.86	34.708	27.84	32.28	1.395	15069						
OBS	3345	.83	34.707	27.84			15084	493	219	312	123	793	
STD	3500	.82	34.707	27.84	32.67	1.476	15110						
STD	3750	.84	34.710	27.84	32.26	1.557	15154						
OBS	3842	.85	34.711	27.84			15171	494	222	314	129	792	
STD	4000	.86	34.713	27.84	32.76	1.639	15199						
OBS	4128	.88	34.715	27.85			15222	493		315	131	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	339	13AUG1964	1846	5939S	16003W	3756	496	90	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			80	4	-1.4	-3.0	100	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.36	34.100	27.38	70.76	0.000	14497						
OBS	1	.36	34.100	27.38			14497	775	199	294	33	814	
STD	10	.38	34.091	27.37	71.50	.007	14499						
STD	20	.39	34.083	27.37	72.11	.014	14501						
OBS	26	.39	34.080	27.36			14502	773	201	298	30	813	
STD	30	.39	34.078	27.36	72.46	.022	14503						
STD	50	.36	34.075	27.36	72.54	.036	14505						
OBS	52	.36	34.075	27.36			14505	774	208	298	33	812	
STD	75	.38	34.082	27.37	72.26	.054	14510						
OBS	77	.38	34.083	27.37			14510	772	210	297	34	812	
STD	100	.39	34.091	27.37	71.35	.072	14514						
OBS	103	.39	34.092	27.37			14515	765	214	304	35	810	
STD	150	.43	34.108	27.38	70.25	.107	14524						
OBS	154	.43	34.109	27.39			14525	753	210	305	34	807	
STD	200	.31	34.129	27.41	67.93	.142	14527						
OBS	211	.30	34.136	27.41			14529	756	224	303	43	803	
STD	250	.69	34.189	27.44	65.63	.175	14553						
STD	300	1.30	34.271	27.46	63.77	.208	14590						
OBS	312	1.47	34.293	27.47			14600	567	233	323	57	797	
STD	400	1.91	34.417	27.53	58.05	.269	14635						
OBS	415	1.95	34.436	27.55			14640	470	238	334	63	797	
STD	500	2.15	34.512	27.59	52.85	.324	14664						
STD	600	2.26	34.573	27.63	50.20	.376	14685						
OBS	622	2.26	34.583	27.64			14689	406	238	341	72	798	
STD	700	2.25	34.620	27.67	46.81	.424	14702						
STD	800	2.24	34.656	27.70	44.39	.470	14718						
OBS	832	2.22	34.665	27.71			14723	417	242	323	80	796	
STD	900	2.19	34.682	27.72	42.44	.513	14733						
STD	1000	2.13	34.700	27.74	41.11	.555	14747						
OBS	1040	2.11	34.706	27.75			14753	429	230	311	81	796	
STD	1250	2.00	34.727	27.77	38.31	.654	14783						
OBS	1298	1.97	34.730	27.78			14789	441		308		796	
STD	1500	1.82	34.742	27.80	36.69	.748	14817						
OBS	1537	1.79	34.743	27.80			14821	450	224	305	85	796	
STD	1750	1.60	34.744	27.82	34.71	.837	14849						
OBS	1784	1.57	34.743	27.82			14853	459	223	298	87	796	
STD	2000	1.39	34.734	27.83	34.36	.924	14881						
OBS	2032	1.37	34.733	27.83			14885	464	218	309	98	795	
STD	2250	1.22	34.728	27.83	33.41	1.008	14915						
OBS	2290	1.20	34.727	27.83			14921	470	213	300	104	795	
STD	2500	1.07	34.724	27.84	33.09	1.091	14951						
OBS	2542	1.05	34.724	27.84			14957	478	218	313	106	794	
OBS	2702	.97	34.721	27.84			14981	479	219	313	112	794	
STD	2750	.96	34.720	27.84	31.92	1.173	14988						
STD	3000	.88	34.719	27.85	31.82	1.252	15027						
OBS	3069	.86	34.719	27.85			15038	488	217	314	118	794	
OBS	3190	.80	34.719	27.85			15057	488	218	313	122	794	
STD	3250	.79	34.718	27.85	30.74	1.331	15066						
STD	3500	.81	34.713	27.85	32.03	1.409	15110						
OBS	3563	.82	34.712	27.85			15122	490	220	311	125	793	
OBS	3662	.82	34.712	27.85			15139	488	223	317	127	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	340	15AUG1964	337	6056S	16008W	3167	532	0	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		80	3	-.6	-3.0	100	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.39	34.113	27.39			14498	766	209	284	39	804	
STD	0	.39	34.113	27.39	69.93	0.000	14498						
STD	10	.35	34.110	27.39	69.93	.007	14498						
STD	20	.32	34.106	27.39	69.99	.014	14498						
OBS	25	.31	34.105	27.39			14499	766	209	293	37	806	
STD	30	.31	34.103	27.39	70.16	.021	14500						
OBS	50	.32	34.099	27.38			14503	768	211	286	42	809	
STD	50	.32	34.099	27.38	70.47	.035	14503						
OBS	75	.31	34.102	27.39			14507	765	211	278	38	805	
STD	75	.31	34.102	27.39	70.38	.053	14507						
OBS	100	.36	34.118	27.40			14513	748	210	290	38	806	
STD	100	.36	34.118	27.40	69.13	.070	14513						
STD	150	.35	34.133	27.41	67.88	.104	14521						
OBS	151	.35	34.133	27.41			14521	738	209	289	44	807	
STD	200	.18	34.127	27.41	67.39	.138	14522						
OBS	204	.18	34.127	27.41			14522	752	212	291	43	806	
STD	250	.75	34.201	27.44	65.14	.171	14557						
STD	300	1.53	34.309	27.48	62.65	.203	14601						
OBS	305	1.62	34.321	27.48			14606	536	233	316	55	799	
STD	400	2.09	34.464	27.56	56.01	.263	14644						
OBS	406	2.10	34.472	27.56			14646	447	238	334	66	793	
STD	500	2.17	34.548	27.62	50.25	.316	14665						
STD	600	2.23	34.595	27.65	48.40	.365	14685						
OBS	608	2.24	34.597	27.65			14686	410	240	327	75	791	
STD	700	2.24	34.635	27.68	45.58	.412	14702						
STD	800	2.21	34.667	27.71	43.25	.456	14717						
OBS	812	2.20	34.670	27.71			14719	417	226	325	79	793	
STD	900	2.16	34.692	27.73	41.40	.499	14732						
OBS	966	2.13	34.703	27.75			14742	430	221	309	80	795	
STD	1000	2.12	34.705	27.75	40.62	.540	14747						
OBS	1036	2.10	34.706	27.75			14752	429	220	307	80	795	
OBS	1210	1.98	34.739	27.79			14776	441	216	303	86	796	
STD	1250	1.96	34.742	27.79	36.79	.637	14781						
OBS	1446	1.83	34.744	27.80			14808	448	208	295	89	798	
STD	1500	1.78	34.743	27.80	36.11	.728	14815						
OBS	1689	1.59	34.738	27.81			14838	461	210	293	95	796	
STD	1750	1.54	34.737	27.82	34.59	.816	14846						
OBS	1931	1.42	34.733	27.82			14871	470	209	299	102	796	
STD	2000	1.36	34.731	27.83	34.28	.902	14880						
OBS	2181	1.22	34.725	27.83			14904	474	208	301	109	796	
STD	2250	1.17	34.723	27.83	33.08	.986	14913						
OBS	2427	1.06	34.720	27.84			14938	479	219	294	110	795	
STD	2500	1.02	34.719	27.84	32.88	1.069	14949						
OBS	2679	.94	34.715	27.84			14976	484	221	292	117	795	
STD	2750	.90	34.712	27.84	31.79	1.150	14986						
OBS	2946	.81	34.705	27.84			15015	490	220	295	123	794	
STD	3000	.80	34.703	27.84	31.86	1.229	15023						
OBS	3046	.79	34.702	27.84			15031	487	212	297	127	795	
OBS	3147	.78	34.704	27.84			15048	486	220	312	125	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	341	16AUG1964	1226	6201S	15958W	3667	531	29	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			50	3	-0.2	-1.5	20	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-0.25	34.142	27.45			14470	784	206	296	34	804	
STD	0	-0.25	34.142	27.45	64.60	0.000	14470						
STD	10	-0.25	34.134	27.44	65.13	.006	14471						
STD	20	-0.25	34.129	27.44	65.50	.013	14473						
OBS	25	-0.25	34.127	27.44			14473	777	205	300	34	802	
STD	30	-0.25	34.126	27.43	65.67	.020	14474						
OBS	50	-0.26	34.125	27.43			14477	775	205	305	38	802	
STD	50	-0.26	34.125	27.43	65.63	.033	14477						
OBS	75	-0.26	34.122	27.43			14481	779	207	298	44	805	
STD	75	-0.26	34.122	27.43	66.00	.049	14481						
OBS	100	-0.26	34.126	27.43			14485	777	207	300	41	804	
STD	100	-0.26	34.126	27.43	65.36	.066	14485						
OBS	150	-0.48	34.127	27.45			14483	780	208	298	45	806	
STD	150	-0.48	34.127	27.45	64.10	.098	14483						
STD	200	-0.61	34.135	27.46	62.73	.130	14485						
OBS	204	-0.60	34.138	27.46			14486	786	207	307	45	807	
STD	250	.39	34.269	27.52	57.73	.160	14541						
STD	300	1.62	34.436	27.57	53.77	.188	14607						
OBS	304	1.73	34.450	27.57			14612	470	227	323	58	796	
STD	400	2.11	34.577	27.65	47.69	.238	14646						
OBS	405	2.10	34.581	27.65			14647	417	233	332	66	796	
STD	500	2.13	34.643	27.70	42.83	.284	14664						
STD	600	2.16	34.673	27.72	41.83	.326	14682						
OBS	607	2.16	34.674	27.72			14684	411	231	331	68	794	
STD	700	2.11	34.692	27.74	40.18	.367	14697						
STD	800	2.05	34.704	27.75	38.93	.407	14711						
OBS	808	2.04	34.705	27.75			14712	429	224	324	76	795	
STD	900	1.99	34.720	27.77	37.69	.445	14725						
STD	1000	1.94	34.734	27.78	36.68	.482	14739						
OBS	1011	1.93	34.735	27.79			14741	447	226	314	81	795	
STD	1250	1.74	34.747	27.81	34.17	.571	14772						
OBS	1322	1.68	34.747	27.82			14781	455	220	314	84	795	
STD	1500	1.55	34.743	27.82	33.64	.655	14805						
OBS	1562	1.50	34.741	27.82			14813	461	213	314	87	795	
STD	1750	1.32	34.734	27.83	32.27	.738	14836						
OBS	1809	1.26	34.732	27.83			14843	469	208	310	92	795	
STD	2000	1.14	34.730	27.84	31.82	.818	14870						
OBS	2059	1.11	34.729	27.84			14879	474	203	305	97	794	
STD	2250	.99	34.723	27.84	31.00	.896	14905						
OBS	2316	.95	34.720	27.84			14915	481	205	309	101	794	
STD	2500	.86	34.713	27.85	31.27	.974	14941						
OBS	2569	.83	34.711	27.85			14952	482	205	309	108	794	
STD	2750	.79	34.710	27.85	30.56	1.051	14981						
OBS	2826	.78	34.710	27.85			14994	488	205	313	112	793	
STD	3000	.80	34.712	27.85	31.21	1.129	15024						
OBS	3092	.81	34.713	27.85			15040	487	205	311	118	792	
STD	3250	.80	34.711	27.85	31.37	1.207	15067						
OBS	3345	.80	34.709	27.85			15083	488	213	310	124	792	
STD	3500	.81	34.705	27.84	32.65	1.287	15110						
OBS	3501	.81	34.705	27.84			15111	488	206	312	123	792	
OBS	3719	.81	34.710	27.85			15148	491	214	313	129	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	342	17AUG1964	707	6219S	15956W	2317	531	29	17				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		75	4	0.0	-2.0	20	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.02	34.146	27.44			14480	773	206	310	41	807	
STD	0	-.02	34.146	27.44	65.35	0.000	14480						
STD	10	-.06	34.142	27.44	65.39	.007	14480						
STD	20	-.11	34.140	27.44	65.32	.013	14479						
OBS	26	-.14	34.139	27.44			14479	774	198	309	44	809	
STD	30	-.18	34.139	27.44	65.02	.020	14478						
STD	50	-.35	34.140	27.45	64.03	.032	14473						
STD	75	-.54	34.145	27.46	62.99	.048	14468						
OBS	79	-.57	34.146	27.46			14468	787	202	303	47	809	
STD	100	-.58	34.148	27.47	62.20	.064	14470						
OBS	105	-.58	34.149	27.47			14471	784	200	293	46	808	
STD	150	-.63	34.155	27.47	61.27	.095	14476						
OBS	157	-.61	34.159	27.48			14479	780		304		808	
STD	200	.06	34.226	27.50	59.16	.125	14517						
OBS	212	.31	34.253	27.51			14531	667	209	311	53	806	
STD	250	1.15	34.372	27.55	54.92	.154	14577						
OBS	270	1.56	34.435	27.57			14599	496	218	339	62	797	
STD	300	1.84	34.488	27.60	51.49	.180	14617						
OBS	369	2.05	34.562	27.64			14639	424	226	338	73	794	
STD	400	2.10	34.590	27.66	46.66	.229	14646						
OBS	468	2.13	34.638	27.69			14659	410	232	323	79	794	
STD	500	2.13	34.652	27.70	42.21	.274	14665						
STD	600	2.12	34.682	27.73	40.84	.315	14681						
OBS	667	2.09	34.692	27.74			14691	419	221	316	79	795	
STD	700	2.08	34.700	27.75	39.26	.355	14696						
STD	800	2.03	34.720	27.77	37.61	.394	14710						
OBS	866	1.99	34.730	27.78			14719	436	210	307	84	798	
STD	900	1.97	34.733	27.78	36.47	.431	14724						
STD	1000	1.91	34.740	27.79	35.90	.467	14738						
OBS	1062	1.86	34.742	27.80			14746	448	202	296	86	799	
STD	1250	1.68	34.747	27.81	33.62	.554	14769						
OBS	1318	1.62	34.747	27.82			14778	455	209	311	91	798	
STD	1500	1.51	34.747	27.83	32.96	.637	14803						
OBS	1560	1.47	34.746	27.83			14811	462	198	311	98	797	
STD	1750	1.28	34.741	27.84	31.37	.717	14834						
OBS	1810	1.22	34.739	27.84			14842	474	196	314	105	799	
STD	2000	1.09	34.732	27.85	31.07	.795	14868						
OBS	2062	1.05	34.730	27.85			14876	480	205	317	111	797	
OBS	2248	.88	34.726	27.85			14900	484	198	318	117	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	343	17AUG1964	1253	6257S	15955W	2652	531	29	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		110	2	-1.7	-3.5	10	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.77	34.150	27.51	58.83	0.000	14399						
OBS	1	-1.77	34.150	27.51			14399	822	190	300	62	807	
STD	10	-1.77	34.142	27.50	59.36	.006	14400						
STD	20	-1.77	34.141	27.50	59.38	.012	14402						
OBS	25	-1.77	34.138	27.50			14402	814	196	306	58	807	
STD	30	-1.78	34.142	27.50	59.18	.018	14403						
STD	50	-1.78	34.159	27.52	57.66	.029	14406						
OBS	51	-1.78	34.160	27.52			14406	809	194	307	56	806	
OBS	75	-1.63	34.160	27.51			14417	782	195	308	61	807	
STD	75	-1.63	34.160	27.51	58.03	.044	14418						
OBS	99	-1.76	34.265	27.60			14417	781	195	307	62	809	
STD	100	-1.77	34.267	27.60	49.02	.057	14417						
OBS	149	-1.85	34.323	27.65			14421	772	193	314	65	808	
STD	150	-1.82	34.326	27.65	44.02	.081	14423						
OBS	199	-.16	34.468	27.71			14510	615	201	319	72	799	
STD	200	-.13	34.471	27.71	39.52	.101	14512						
STD	250	1.09	34.597	27.74	37.41	.121	14577						
OBS	300	1.82	34.690	27.76			14619	424	206	326	82	797	
STD	300	1.82	34.690	27.76	36.14	.139	14619						
OBS	400	1.79	34.731	27.79			14634	434	205	315	89	796	
STD	400	1.79	34.731	27.79	33.47	.174	14635						
STD	500	1.71	34.731	27.80	32.59	.207	14647						
STD	600	1.61	34.731	27.81	32.67	.240	14659						
OBS	601	1.61	34.731	27.81			14659	451	198	314	87	796	
STD	700	1.54	34.732	27.81	31.96	.272	14672						
STD	800	1.45	34.733	27.82	31.34	.303	14685						
OBS	802	1.45	34.733	27.82			14685	459	197	311	92	796	
STD	900	1.33	34.730	27.83	30.76	.335	14696						
OBS	911	1.32	34.730	27.83			14697	470	199	309	97	797	
STD	1000	1.26	34.726	27.83	30.84	.365	14709						
OBS	1014	1.25	34.725	27.83			14711	470	200	308	100	797	
STD	1250	1.04	34.717	27.84	29.55	.441	14741						
OBS	1275	1.02	34.716	27.84			14744	474	200	306	103	797	
STD	1500	.89	34.712	27.84	29.23	.514	14775						
OBS	1526	.88	34.712	27.84			14779	482	199	312	107	796	
STD	1750	.73	34.708	27.85	27.99	.586	14810						
OBS	1784	.71	34.707	27.85			14814	487	195	319	115	797	
STD	2000	.67	34.703	27.85	28.54	.657	14848						
OBS	2039	.66	34.702	27.85			14855	489	205	321	118	796	
STD	2250	.55	34.699	27.85	27.70	.727	14885						
OBS	2299	.53	34.698	27.85			14893	493	204	326	118	795	
OBS	2427	.51	34.692	27.85			14913	497	210	324	117	795	
STD	2500	.47	34.693	27.85	28.15	.797	14924						
OBS	2556	.45	34.695	27.86			14933	504	201	321	118	795	
OBS	2685	.46	34.697	27.86			14955	499	199	316	116	795	
STD	2750	.45	34.695	27.86	27.43	.866	14965						
OBS	2752	.45	34.695	27.86			14966	497	200	318	118	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	344	18AUG1964	255	6251S	15952W	2732	531	29	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			195	5	-5.9	-6.6	0	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
STD	0	-1.71	34.101	27.47	62.74	0.000	14401						
OBS	1	-1.71	34.101	27.47			14401	826	193	299	56	804	
STD	10	-1.62	34.135	27.49	60.26	.006	14407						
OBS	17	-1.58	34.153	27.51			14410	820	199	298	56	807	
STD	20	-1.58	34.156	27.51	58.68	.012	14411						
STD	30	-1.58	34.163	27.51	58.01	.018	14413						
OBS	35	-1.59	34.166	27.52			14413	820	193	306	55	808	
STD	50	-1.55	34.199	27.54	55.22	.029	14418						
OBS	53	-1.54	34.207	27.55			14419	798	183	309	59	808	
OBS	72	-1.49	34.262	27.59			14425	774		315			
STD	75	-1.28	34.284	27.60	49.58	.042	14436						
STD	100	.45	34.456	27.66	43.89	.054	14522						
OBS	112	1.27	34.532	27.67			14562	502	202	323	72	798	
STD	150	.38	34.492	27.70	40.77	.075	14528						
OBS	154	.22	34.482	27.70			14521	468	199	317	74	800	
STD	200	.83	34.570	27.73	37.59	.095	14557						
OBS	241	1.78	34.679	27.75			14607	433	208	314	82	798	
STD	250	1.82	34.688	27.76	36.04	.113	14611						
STD	300	1.88	34.718	27.78	34.46	.131	14622						
OBS	329	1.79	34.723	27.79			14623	439	191	313	84	797	
STD	400	1.76	34.738	27.80	32.70	.164	14633						
STD	500	1.69	34.744	27.81	31.45	.196	14647						
OBS	521	1.67	34.743	27.81			14649	449	193	315	86	798	
STD	600	1.60	34.742	27.82	31.70	.228	14659						
STD	700	1.49	34.738	27.82	31.18	.259	14670						
OBS	712	1.48	34.737	27.82			14672	464	199	317	91	798	
STD	800	1.39	34.734	27.83	30.73	.290	14682						
STD	900	1.30	34.730	27.83	30.51	.321	14695						
OBS	902	1.30	34.730	27.83			14695	480	213	319	95	797	
OBS	971	1.25	34.726	27.83			14704	482	193	318	94	797	
STD	1000	1.23	34.725	27.83	30.58	.352	14708						
OBS	1056	1.18	34.725	27.83			14715	476	195	315	101	797	
STD	1250	.99	34.718	27.84	28.98	.426	14738						
OBS	1273	.97	34.717	27.84			14741	480	191	315	109	797	
OBS	1496	.82	34.711	27.85			14771	487	188	315	116	797	
STD	1500	.82	34.711	27.85	28.60	.498	14772						
OBS	1733	.73	34.707	27.85			14807	490	196	316	116	796	
STD	1750	.73	34.707	27.85	28.03	.569	14809						
OBS	1973	.66	34.702	27.85			14844	496	186	319	116	796	
STD	2000	.65	34.701	27.85	28.45	.639	14848						
OBS	2227	.55	34.698	27.85			14881	499	197	321	116	795	
STD	2250	.54	34.698	27.85	27.67	.710	14885						
OBS	2473	.45	34.696	27.86			14918	505	203	317	116	795	
STD	2500	.44	34.696	27.86	27.54	.779	14923						
OBS	2648	.39	34.698	27.86			14946	509	207	319	116	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	345	19AUG1964	600	6141S	15608W	2939	531	16	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		155	4	-16.2		120	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-.86	34.147	27.48	61.77	0.000	14441						
OBS	2	-.86	34.147	27.48			14441	796	208	276	62	810	
STD	10	-.86	34.136	27.47	62.54	.006	14443						
STD	20	-.83	34.127	27.46	63.29	.013	14446						
OBS	21	-.83	34.126	27.46			14446	792	206	279	62	809	
STD	30	-.75	34.124	27.45	63.76	.019	14451						
OBS	41	-.66	34.124	27.45			14457	792	201	282	65	809	
STD	50	-.64	34.123	27.45	64.15	.032	14459						
OBS	62	-.66	34.123	27.45			14460	792	210	297	66	809	
STD	75	-.76	34.125	27.46	63.65	.048	14458						
OBS	83	-.83	34.129	27.46			14456	793	208	302	76	809	
STD	100	-.95	34.160	27.49	59.83	.063	14454						
OBS	128	-.84	34.235	27.55			14464	673	217	316	78	808	
STD	150	-.14	34.300	27.57	52.56	.091	14501						
OBS	177	.86	34.380	27.58			14552	566	241	324	81	805	
STD	200	1.29	34.437	27.60	50.79	.117	14576						
STD	250	1.81	34.539	27.64	47.17	.141	14608						
OBS	270	1.86	34.571	27.66			14614	429	250	321	84	797	
STD	300	1.92	34.606	27.68	43.26	.164	14622						
OBS	366	1.88	34.657	27.73			14632	417	239	317	90	797	
STD	400	1.91	34.672	27.74	38.87	.205	14639						
STD	500	1.98	34.700	27.75	37.23	.243	14659						
OBS	564	2.02	34.705	27.76			14671	428	229	311	95	795	
STD	600	1.99	34.710	27.76	37.63	.281	14676						
STD	700	1.92	34.721	27.78	36.21	.318	14689						
OBS	764	1.87	34.728	27.79			14697	436	230	302	98	795	
STD	800	1.87	34.734	27.79	35.09	.353	14703						
OBS	803	1.87	34.734	27.79			14704	444	224	292	111	797	
STD	900	1.80	34.740	27.80	34.39	.388	14717						
OBS	904	1.80	34.740	27.80			14717	447	226	292	115	797	
OBS	988	1.69	34.739	27.81			14726	453	221	292	118	800	
STD	1000	1.68	34.740	27.81	33.70	.422	14728						
OBS	1059	1.61	34.742	27.82			14734	460	218	297	100	802	7
OBS	1224	1.47	34.733	27.82			14755	462	217	293	119	797	
STD	1250	1.44	34.732	27.82	32.28	.504	14759						
OBS	1457	1.24	34.727	27.83			14783	470	213	297	120	797	
STD	1500	1.21	34.727	27.83	31.35	.584	14790						
OBS	1702	1.08	34.724	27.84			14817	475	214	299	123	799	
STD	1750	1.04	34.722	27.84	30.20	.661	14824						
OBS	1946	.89	34.712	27.84			14849	494	221	307	121	795	
STD	2000	.86	34.710	27.84	30.16	.736	14857						
OBS	2201	.80	34.706	27.84			14888	487	228	302	125	794	
STD	2250	.79	34.706	27.84	29.85	.811	14896						
OBS	2456	.75	34.708	27.85			14929	488	221	303	128	793	
STD	2500	.74	34.708	27.85	30.27	.887	14936						
OBS	2720	.73	34.707	27.85			14973	490	218	302	130	794	
STD	2750	.73	34.707	27.85	30.07	.962	14978						
OBS	2909	.75	34.705	27.85			15006	494	223	302	128	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	346	20AUG1964	1625	5954S	15241W	2670	495	92	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			345	6	-1.3	-7.3	330	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.16	34.176	27.51	58.52	0.000	14428						
OBS	3	-1.16	34.176	27.51			14428	806	209	278	62	805	
STD	10	-1.16	34.171	27.51	58.84	.006	14430						
STD	20	-1.15	34.166	27.50	59.17	.012	14431						
OBS	26	-1.15	34.164	27.50			14432	801	197	281	58	804	
STD	30	-1.15	34.164	27.50	59.26	.018	14433						
OBS	49	-1.14	34.164	27.50			14436	797	207	287	49	806	
STD	50	-1.14	34.165	27.50	59.10	.030	14437						
OBS	72	-.92	34.203	27.52			14451	772	207	292	65	811	
STD	75	-.77	34.217	27.53	56.58	.044	14459						
OBS	95	.34	34.316	27.56			14514	622	217	310	68	811	
STD	100	.47	34.330	27.56	53.65	.058	14521						
OBS	142	1.01	34.408	27.59			14553	540	228	319	75	810	
STD	150	1.16	34.429	27.60	50.43	.084	14562						
OBS	192	1.90	34.537	27.63			14602	434	235	321	77	808	
STD	200	1.96	34.550	27.64	47.30	.108	14607						
STD	250	2.16	34.612	27.67	44.50	.131	14625						
OBS	284	2.12	34.635	27.69			14628	407	221	325	81	800	
STD	300	2.11	34.646	27.70	41.91	.153	14631						
OBS	377	2.03	34.681	27.74			14640	413	220	313	83	799	
STD	400	2.01	34.688	27.74	38.61	.193	14644						
STD	500	1.95	34.708	27.76	36.38	.231	14658						
OBS	571	1.91	34.714	27.77			14667	429	215	296	91	794	
STD	600	1.88	34.716	27.78	36.15	.267	14671						
STD	700	1.81	34.725	27.79	34.93	.302	14684						
OBS	757	1.78	34.731	27.79			14692	440	214	295	93	797	
OBS	778	1.78	34.735	27.80			14695	447	205	296	96	796	
STD	800	1.77	34.736	27.80	33.98	.337	14699						
OBS	851	1.73	34.735	27.80			14705	452	200	292	95	797	
STD	900	1.68	34.736	27.81	33.47	.371	14711						
OBS	945	1.62	34.737	27.81			14716	451	203	292	92	799	
OBS	987	0.00	34.737	0.00			0	453	204	296	96	796	
STD	1000	1.56	34.737	27.82	32.79	.404	14722						
OBS	1042	1.51	34.735	27.82			14708	460	209	289	97	797	
STD	1250	1.30	34.727	27.83	31.24	.484	14752						
OBS	1283	1.27	34.726	27.83			14737	465	209	293	101	795	
STD	1500	1.11	34.723	27.84	30.55	.561	14785						
OBS	1525	1.09	34.723	27.84			14769	472	210	296	110	796	
STD	1750	.93	34.714	27.84	29.57	.636	14818						
OBS	1776	.91	34.713	27.84			14803	481	213	298	112	796	
STD	2000	.80	34.707	27.84	29.73	.710	14854						
OBS	2027	.79	34.706	27.84			14839	484	212	296	122	795	
STD	2250	.69	34.702	27.85	28.96	.784	14891						
OBS	2290	.67	34.702	27.85			14878	489	229	297	129	793	
STD	2500	.62	34.699	27.85	29.41	.857	14930						
OBS	2545	.61	34.699	27.85			14918	494	212	296	133	793	
OBS	2725	.56	34.700	27.85			14947	495	221	296	131	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 14	347	21AUG1964	2055	5954S	14857W	3041	494	98	21

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
15	5	-2.6	-6.4	0	2

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-1.37	34.223	27.56	54.28	0.000	14419						
OBS	1	-1.37	34.223	27.56			14419	826	206	280	60	806	
STD	10	-1.36	34.218	27.55	54.61	.005	14420						
STD	20	-1.36	34.214	27.55	54.86	.011	14422						
OBS	25	-1.36	34.212	27.55			14423	823	201	282	60	805	
STD	30	-1.37	34.210	27.55	55.02	.016	14423						
STD	50	-1.38	34.209	27.54	54.96	.027	14426						
OBS	52	-1.38	34.209	27.55			14426	822	194	288	59	804	
STD	75	-1.29	34.223	27.55	54.25	.041	14435						
OBS	79	-1.27	34.226	27.56			14436	819	199	290	61	805	
STD	100	-1.19	34.241	27.57	52.75	.054	14443						
OBS	106	-1.16	34.247	27.57			14446	809	200	299	65	805	
STD	150	-.66	34.324	27.61	48.29	.080	14477						
OBS	159	-.50	34.350	27.63			14487	715	204	299	76	802	
STD	200	.70	34.565	27.74	37.24	.101	14551						
OBS	215	1.14	34.644	27.77			14574	472	223	321	87	791	
STD	250	1.23	34.705	27.81	30.29	.118	14585						
STD	300	1.35	34.701	27.80	31.71	.133	14598						
OBS	320	1.40	34.714	27.81			14604	455	220	321	88	795	
STD	400	1.41	34.736	27.83	29.98	.164	14618						
OBS	422	1.39	34.739	27.83			14620	456	222	319	91	797	
STD	500	1.33	34.737	27.83	29.07	.194	14631						
STD	600	1.23	34.726	27.83	29.95	.223	14642						
OBS	621	1.21	34.722	27.83			14645	452	230	328	101	797	
STD	700	1.12	34.721	27.83	29.33	.253	14654						
STD	800	1.06	34.719	27.84	28.97	.282	14667						
OBS	820	1.05	34.719	27.84			14670	459	222	337	107	798	
OBS	843	1.06	34.718	27.84			14674	462	217	325	119	799	
STD	900	1.04	34.716	27.84	29.30	.311	14683						
STD	1000	.96	34.712	27.84	29.24	.341	14696						
OBS	1031	.93	34.711	27.84			14699	471	224	321	118	798	
STD	1250	.81	34.706	27.84	28.14	.412	14730						
OBS	1265	.80	34.706	27.84			14732	477	225	320	117	797	
OBS	1498	.67	34.703	27.85			14765	487	218	316	119	797	
STD	1500	.67	34.703	27.85	27.74	.482	14765						
OBS	1738	.57	34.699	27.85			14800	489	222	315	124	796	
STD	1750	.56	34.699	27.85	26.94	.550	14802						
OBS	1979	.46	34.701	27.86			14836	496	217	311	128	795	
STD	2000	.45	34.700	27.86	26.44	.617	14839						
OBS	2229	.38	34.694	27.86			14874	502	217	312	129	795	
STD	2250	.37	34.694	27.86	26.05	.683	14877						
OBS	2478	.27	34.694	27.87			14911	511	226	314	133	795	
STD	2500	.27	34.694	27.87	25.67	.747	14915						
OBS	2735	.24	34.694	27.87			14953	507	218	315	129	796	
STD	2750	.24	34.694	27.87	24.93	.811	14956						
OBS	2991	.21	34.693	27.87			14996	513	221	318	126	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	348	22AUG1964	1732	5959S	14516W	3462	494	95	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			40	4	-1.8	-6.0	280	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
STD	0	-.96	34.139	27.47	62.03	0.000	14437						
OBS	1	-.96	34.139	27.47			14437	818	191	279	54	803	
STD	10	-.94	34.128	27.47	62.83	.006	14439						
STD	20	-.93	34.120	27.46	63.43	.013	14441						
OBS	26	-.93	34.117	27.46			14442	816	189	278	56	809	
STD	30	-.93	34.117	27.46	63.58	.019	14442						
STD	50	-.96	34.118	27.46	63.28	.032	14445						
OBS	52	-.96	34.119	27.46			14445	816	190	275	54	810	
STD	75	-.94	34.118	27.46	63.46	.047	14449						
OBS	77	-.94	34.119	27.46			14450	818	198	276	63	810	
STD	100	-.83	34.170	27.49	59.54	.063	14459						
OBS	102	-.82	34.176	27.50			14460	806		271			
STD	150	-.40	34.363	27.63	46.49	.089	14490						
OBS	153	-.36	34.377	27.64			14492	675	215	278	72	800	
STD	200	.68	34.617	27.78	33.10	.109	14551						
OBS	207	.84	34.650	27.80			14560	477	220	322	92	796	
STD	250	1.19	34.718	27.83	29.02	.125	14583						
STD	300	1.21	34.713	27.82	29.78	.139	14592						
OBS	309	1.25	34.719	27.82			14595	441	230	322	97	794	
STD	400	1.23	34.736	27.84	28.65	.169	14610						
OBS	411	1.21	34.736	27.84			14611	444	223	322	108	795	
STD	500	1.15	34.732	27.84	28.01	.197	14623						
STD	600	1.08	34.722	27.84	29.05	.226	14636						
OBS	617	1.07	34.719	27.84			14638	458	220	319	111	795	
STD	700	1.01	34.714	27.84	28.96	.255	14649						
STD	800	.95	34.710	27.84	28.77	.283	14662						
OBS	823	.93	34.709	27.84			14665	471	219	317	111	795	
STD	900	.87	34.705	27.84	28.63	.312	14675						
STD	1000	.80	34.706	27.84	28.30	.341	14688						
OBS	1028	.78	34.705	27.84			14692	477	222	322	120	795	
OBS	1188	.71	34.723	27.86			14715	492	219	326	125	797	
STD	1250	.68	34.714	27.86	26.40	.409	14724						
OBS	1323	.64	34.700	27.85			14734	499	224	321	124	795	
STD	1500	.58	34.691	27.84	27.78	.477	14761						
OBS	1565	.56	34.691	27.85			14771	495	220	324	121	796	
STD	1750	.50	34.693	27.85	26.72	.545	14799						
OBS	1816	.47	34.694	27.85			14809	494	222	322	126	793	
STD	2000	.37	34.693	27.86	26.18	.611	14835						
OBS	2067	.34	34.692	27.86			14845	507	224	320	131	794	
STD	2250	.28	34.691	27.86	25.25	.675	14873						
OBS	2326	.26	34.691	27.86			14885	508	231	320	129	793	
STD	2500	.21	34.691	27.87	25.28	.738	14912						
OBS	2580	.20	34.691	27.87			14925	530	222	319	126	792	
STD	2750	.20	34.687	27.86	24.98	.801	14954						
OBS	2837	.20	34.685	27.86			14969	514	224	322	128	791	
STD	3000	.18	34.688	27.87	25.03	.864	14996						
OBS	3104	.17	34.691	27.87			15013	531	223	321	129	791	
STD	3250	.16	34.691	27.87	24.23	.925	15038						
OBS	3357	.16	34.691	27.87			15056	519	224	329	126	791	
OBS	3443	.16	34.693	27.87			15071	518	225	334	123	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	349	23AUG1964	2202	6003S	14052W	3659	530	0	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			50	4	-2.9	-4.8	55	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	-.52	34.129	27.45			14457	802	189	291	53	811	
STD	0	-.52	34.129	27.45	64.45	0.000	14457						
STD	10	-.51	34.121	27.44	65.04	.006	14459						
STD	20	-.51	34.115	27.44	65.43	.013	14460						
OBS	23	-.51	34.114	27.44			14461	802	190	288	54	812	
STD	30	-.52	34.112	27.44	65.56	.020	14462						
OBS	47	-.53	34.112	27.44			14464	804	191	291	55	812	
STD	50	-.53	34.112	27.44	65.46	.033	14464						
OBS	70	-.50	34.114	27.44			14469	800	196	290	55	812	
STD	75	-.49	34.114	27.44	65.62	.049	14470						
OBS	94	-.46	34.127	27.44			14475	798	212	291	54	812	
STD	100	-.54	34.146	27.46	62.60	.065	14473						
OBS	142	-.73	34.338	27.63			14473	640	211	295	64	803	
STD	150	-.46	34.382	27.65	44.72	.092	14487						
OBS	191	1.12	34.588	27.73			14569	485	223	337	76	798	
STD	200	1.26	34.610	27.74	37.58	.112	14577						
STD	250	1.70	34.684	27.76	35.34	.131	14605						
OBS	289	1.61	34.689	27.77			14608	443	216	326	86	798	
STD	300	1.63	34.696	27.78	34.22	.148	14611						
OBS	388	1.68	34.730	27.80			14628	442	217	321	85	798	
STD	400	1.68	34.732	27.80	32.45	.181	14630						
STD	500	1.62	34.742	27.82	30.98	.213	14643						
OBS	588	1.52	34.739	27.82			14653	452	217	324	90	798	
STD	600	1.51	34.739	27.82	31.22	.244	14655						
STD	700	1.40	34.734	27.83	30.66	.275	14666						
OBS	788	1.30	34.728	27.83			14676	450	221	329	96	798	
STD	800	1.29	34.728	27.83	30.33	.306	14678						
STD	900	1.22	34.726	27.83	30.10	.336	14691						
OBS	986	1.17	34.725	27.83			14703	468	216	326	101	798	
STD	1000	1.16	34.725	27.83	30.04	.366	14705						
OBS	1138	1.07	34.721	27.84			14723	469	216	329	114	797	
STD	1250	.99	34.719	27.84	28.90	.440	14738						
OBS	1382	.90	34.716	27.84			14756	477	218	326	113	797	
STD	1500	.83	34.711	27.85	28.71	.512	14773						
OBS	1634	.77	34.707	27.85			14792	484	221	325	112	797	
STD	1750	.73	34.707	27.85	28.07	.583	14810						
OBS	1887	.69	34.708	27.85			14831	488	219	324	116	796	
STD	2000	.64	34.707	27.85	27.95	.653	14847						
OBS	2150	.58	34.706	27.86			14870	493	222	319	124	795	
STD	2250	.55	34.705	27.86	27.24	.722	14885						
OBS	2403	.50	34.703	27.86			14909	499	220	324	126	795	
STD	2500	.46	34.703	27.86	27.27	.790	14923						
OBS	2662	.39	34.702	27.86			14948	503	221	331	129	795	
STD	2750	.37	34.701	27.87	25.99	.856	14962						
OBS	2932	.32	34.698	27.87			14991	503	220	331	130	795	
STD	3000	.30	34.697	27.87	25.81	.921	15001						
OBS	3184	.24	34.697	27.87			15031	513	221	334	130	793	
STD	3250	.23	34.698	27.87	24.62	.984	15041						
OBS	3467	.22	34.702	27.87			15078	520	221	335	129	793	
STD	3500	.22	34.702	27.87	24.60	1.046	15083						
OBS	3636	.19	34.699	27.87			15106	513	220	338	128	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	350	25AUG1964	515	5958S	13658W	3784	493	96	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		50	5	.5	-.8	40	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	-.41	34.119	27.44	65.67	0.000	14462						
OBS	2	-.41	34.119	27.44			14462	804	192	296	59	808	
STD	10	-.40	34.110	27.43	66.36	.007	14464						
STD	20	-.40	34.102	27.42	66.91	.013	14465						
OBS	22	-.40	34.101	27.42			14465	800	191	297	53	811	
STD	30	-.41	34.101	27.42	66.87	.020	14467						
OBS	44	-.42	34.102	27.42			14468	799	194	293	47	810	
STD	50	-.42	34.103	27.42	66.60	.033	14469						
OBS	66	-.41	34.105	27.42			14472	796	199	292	58	810	
STD	75	-.40	34.104	27.42	66.77	.050	14474						
OBS	89	-.39	34.103	27.42			14477	796	202	292	61	809	
STD	100	-.46	34.099	27.42	66.53	.067	14476						
OBS	135	-.40	34.150	27.46			14484	777	206	296	70	806	
STD	150	.05	34.251	27.52	57.30	.098	14509						
OBS	185	1.25	34.507	27.65			14572	487	220	340	83	798	
STD	200	1.46	34.555	27.68	43.13	.123	14585						
STD	250	1.83	34.644	27.72	39.40	.143	14611						
OBS	281	1.78	34.643	27.72			14613	428	220	337	93	796	
STD	300	1.81	34.655	27.73	38.65	.163	14618						
OBS	379	1.81	34.684	27.76			14631	428	222	336	98	796	
STD	400	1.81	34.690	27.76	36.69	.201	14635						
STD	500	1.78	34.712	27.78	34.58	.236	14650						
OBS	578	1.73	34.721	27.79			14660	442	219	335	99	796	
STD	600	1.71	34.722	27.79	34.19	.271	14664						
STD	700	1.63	34.724	27.80	33.43	.304	14676						
OBS	779	1.56	34.726	27.81			14686	453	215	334	103	798	
STD	800	1.54	34.726	27.81	32.65	.337	14689						
STD	900	1.46	34.726	27.82	32.16	.370	14701						
OBS	977	1.39	34.726	27.82			14711	463	215	332	107	797	
STD	1000	1.37	34.726	27.82	31.85	.402	14714						
OBS	1177	1.23	34.724	27.83			14737	466	214	331	112	798	
STD	1250	1.17	34.721	27.83	30.50	.480	14746						
OBS	1413	1.06	34.713	27.83			14768	470	215	329	116	796	
STD	1500	1.00	34.711	27.83	30.45	.556	14780						
OBS	1661	.91	34.707	27.84			14802	480	219	325	127	796	
STD	1750	.87	34.705	27.84	29.69	.631	14816						
OBS	1911	.81	34.701	27.84			14840	481	218	324	130	796	
STD	2000	.77	34.700	27.84	29.83	.706	14853						
OBS	2171	.69	34.699	27.84			14878	488	218	324	134	795	
STD	2250	.67	34.699	27.85	29.03	.779	14890						
OBS	2420	.62	34.697	27.85			14917	493	216	320	139	795	
STD	2500	.59	34.695	27.85	29.34	.852	14929						
OBS	2673	.52	34.692	27.85			14955	495	210	324	141	793	
STD	2750	.50	34.692	27.85	28.29	.924	14967						
OBS	2946	.44	34.692	27.85			14998	497	215	327	135	794	
STD	3000	.41	34.693	27.86	27.56	.994	15006						
OBS	3195	.30	34.695	27.86			15035	503	217	328	137	793	
STD	3250	.29	34.695	27.86	25.58	1.060	15043						
OBS	3461	.26	34.694	27.87			15079	522	217	332	138	793	
STD	3500	.25	34.694	27.87	25.67	1.124	15085						
STD	3750	.21	34.696	27.87	24.21	1.187	15127						
OBS	3826	.20	34.697	27.87			15139	515	218	334	142	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	351	26 AUG 1964	918	5957S	13238W	4422	493	92	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			110	3	.8	-.5	50	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
STD	0	.14	33.996	27.31	77.57	0.000	14485						
OBS	1	.14	33.996	27.31			14485	798	192	297	42	807	
STD	10	.15	34.004	27.32	76.96	.008	14488						
STD	20	.16	34.010	27.32	76.51	.015	14490						
OBS	27	.16	34.012	27.32			14491	791	192	295	43	810	
STD	30	.16	34.011	27.32	76.37	.023	14491						
STD	50	.13	34.004	27.32	76.71	.038	14493						
OBS	53	.13	34.003	27.32			14493	790	194	294	42	811	
STD	75	.15	34.003	27.32	77.06	.058	14498						
OBS	79	.16	34.004	27.32			14499	788	192	295	45	811	
STD	100	.16	34.004	27.32	76.69	.077	14503						
OBS	104	.17	34.007	27.32			14504	785	194	296	45	809	
STD	150	1.07	34.178	27.40	68.88	.113	14555						
OBS	156	1.22	34.207	27.42			14562	614	206	294	48	799	
STD	200	1.78	34.357	27.50	60.48	.146	14597						
OBS	210	1.87	34.386	27.51			14602	472	232	345	65	796	
STD	250	2.03	34.453	27.55	55.37	.174	14617						
STD	300	2.04	34.502	27.59	52.02	.201	14626						
OBS	313	2.06	34.509	27.60			14629	419	224	341	75	794	
STD	400	2.23	34.581	27.64	48.43	.252	14652						
OBS	415	2.25	34.591	27.65			14655	410	212	340	83	796	
STD	500	2.21	34.629	27.68	44.58	.298	14668						
STD	600	2.18	34.657	27.70	43.29	.342	14683						
OBS	620	2.16	34.660	27.71			14685	419	207	340	87	796	
STD	700	2.11	34.677	27.73	41.29	.384	14697						
STD	800	2.04	34.693	27.74	39.73	.425	14710						
OBS	826	2.02	34.696	27.75			14714	430	208	340	88	797	
STD	900	1.96	34.706	27.76	38.43	.464	14723						
STD	1000	1.88	34.716	27.78	37.42	.502	14736						
OBS	1030	1.85	34.718	27.78			14740	444	205	335	91	796	
STD	1250	1.66	34.723	27.80	35.13	.592	14768						
OBS	1300	1.62	34.723	27.80			14774	456	204	334	98	796	
STD	1500	1.45	34.725	27.82	33.91	.679	14800						
OBS	1555	1.40	34.725	27.82			14807	466	204	330	103	795	
STD	1750	1.26	34.720	27.82	32.74	.762	14833						
OBS	1803	1.23	34.718	27.82			14841	469	207	324	108	796	
STD	2000	1.10	34.711	27.83	32.75	.844	14868						
OBS	2052	1.07	34.709	27.83			14875	477	207	326	117	795	
STD	2250	.97	34.705	27.83	31.98	.925	14904						
OBS	2305	.94	34.705	27.83			14912	479	212	323	120	794	
STD	2500	.84	34.705	27.84	31.69	1.004	14941						
OBS	2554	.82	34.705	27.84			14949	482	211	318	128	794	
STD	2750	.75	34.699	27.84	30.85	1.083	14979						
OBS	2806	.73	34.697	27.84			14987	488	212	321	132	794	
STD	3000	.69	34.698	27.84	30.75	1.160	15018						
OBS	3065	.67	34.699	27.85			15029	490	211	330	135	793	
STD	3250	.58	34.699	27.85	29.26	1.235	15057						
STD	3500	.46	34.698	27.86	28.27	1.307	15094						
OBS	3572	.43	34.698	27.86			15106	503	209	333	139	792	
STD	3750	.38	34.697	27.86	26.58	1.375	15134						
STD	4000	.35	34.695	27.86	26.19	1.441	15176						
OBS	4084	.34	34.695	27.86			15191	513	209	335	140	791	
OBS	4404	.34	34.695	27.86			15247	513	208	336	138	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 14	352	27AUG1964	1545	5955S	12857W	4718	492	98	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
350	4	-.3	-4.0	45	4

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	1.44	33.978	27.22			14544	765	195	270	21	810	
STD	0	1.44	33.978	27.22	86.44	0.000	14544						
STD	10	1.43	33.961	27.20	87.68	.009	14545						
STD	20	1.35	33.952	27.20	87.82	.017	14543						
OBS	24	1.29	33.950	27.20			14541	770	193	271	24	809	
STD	30	1.14	33.953	27.22	86.38	.026	14535						
OBS	50	.61	33.970	27.26			14515	787	200	271	29	810	
STD	50	.61	33.970	27.26	81.89	.043	14515						
OBS	74	.42	33.983	27.28			14510	793	201	269	34	809	
STD	75	.42	33.983	27.28	80.02	.063	14510						
OBS	99	.40	33.982	27.29			14513	791	203	269	35	809	
STD	100	.40	33.982	27.29	79.68	.083	14513						
STD	150	.27	33.993	27.30	78.01	.123	14515						
OBS	155	.25	33.995	27.30			14516	788	202	268	39	811	
OBS	200	.15	34.007	27.32			14518	793	202	314	68	812	
STD	200	.15	34.007	27.32	76.28	.161	14518						
STD	250	.88	34.136	27.38	70.91	.198	14561						
OBS	300	1.76	34.290	27.44			14611	539	224	318	75	798	
STD	300	1.76	34.290	27.44	65.81	.232	14611						
STD	400	2.06	34.418	27.52	59.25	.295	14642						
OBS	401	2.06	34.419	27.52			14642	454	223	314	82	796	
STD	500	2.16	34.507	27.59	53.24	.351	14664						
STD	600	2.16	34.571	27.64	49.45	.402	14681						
OBS	603	2.16	34.573	27.64			14682	420	230	329	89	792	
STD	700	2.16	34.622	27.68	45.81	.450	14698						
STD	800	2.15	34.659	27.71	43.30	.494	14715						
OBS	806	2.15	34.661	27.71			14716	421	245	345	93	793	
STD	900	2.11	34.686	27.73	41.35	.537	14730						
STD	1000	2.05	34.705	27.75	39.96	.577	14744						
OBS	1006	2.05	34.706	27.75			14745	435	244	339	99	795	
STD	1250	1.88	34.730	27.79	36.92	.674	14778						
OBS	1420	1.75	34.734	27.80			14800	451	245	337	102	795	
STD	1500	1.68	34.735	27.81	35.66	.764	14810						
OBS	1671	1.54	34.735	27.82			14833	465	232	331	103	795	
STD	1750	1.48	34.733	27.82	34.13	.852	14843						
OBS	1927	1.34	34.727	27.82			14867	471	222	330	104	795	
STD	2000	1.29	34.727	27.83	33.74	.936	14876						
OBS	2184	1.18	34.727	27.84			14903	474	212	324	113	795	
STD	2250	1.14	34.725	27.84	32.56	1.019	14912						
STD	2500	1.00	34.719	27.84	32.55	1.101	14947						
OBS	2704	.89	34.712	27.84			14978	484	213	317	126	794	
STD	2750	.87	34.711	27.84	31.52	1.181	14984						
STD	3000	.77	34.707	27.85	31.27	1.259	15022						
OBS	3229	.69	34.704	27.85			15058	497	211	319	127	793	
STD	3250	.68	34.704	27.85	30.19	1.336	15061						
STD	3500	.57	34.702	27.85	29.45	1.411	15099						
OBS	3746	.47	34.700	27.86			15138	511	219	323	129	793	
STD	3750	.47	34.700	27.86	27.58	1.482	15138						
STD	4000	.42	34.698	27.86	27.13	1.550	15179						
OBS	4013	.42	34.698	27.86			15182	521	218	320	136	792	
OBS	4263	.41	34.697	27.86			15225	515	221	325	140	792	
STD	4500	.41	34.698	27.86	27.38	1.687	15266						
OBS	4513	.41	34.698	27.86			15269	511	220	331	137	791	
OBS	4818	.43	34.699	27.86			15324	515	222	333	136	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	353	28AUG1964	1852	5958S	12454W	4726	492	94	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			330	7	4.7	1.4	330	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.01	34.050	27.15			14614	737	179	268	12	807	
STD	0	3.01	34.050	27.15	92.89	0.000	14614						
STD	10	3.01	34.042	27.14	93.50	.009	14615						
STD	20	3.00	34.036	27.14	93.98	.019	14616						
OBS	28	3.00	34.032	27.14			14617	733	178	262	11	806	
STD	30	3.00	34.031	27.13	94.31	.028	14618						
STD	50	2.99	34.028	27.13	94.59	.047	14621						
OBS	58	2.99	34.028	27.13			14622	733	178	263	14	806	
STD	75	3.00	34.030	27.13	94.88	.071	14625						
OBS	88	3.01	34.032	27.13			14628	732	180	263	12	807	
STD	100	3.01	34.033	27.14	94.55	.094	14629						
OBS	117	3.00	34.034	27.14			14632	733	183	264	12	806	
STD	150	3.01	34.031	27.13	94.94	.142	14637						
OBS	174	3.01	34.028	27.13			14641	735	180	263	12	805	
STD	200	2.97	34.021	27.13	95.70	.189	14644						
OBS	234	2.94	34.019	27.13			14648	730	181	262	14	797	
STD	250	3.01	34.033	27.13	95.49	.237	14654						
STD	300	3.22	34.085	27.16	93.92	.285	14672						
OBS	346	3.41	34.146	27.19			14688	608	197	310	31	794	
STD	400	3.27	34.189	27.24	87.50	.375	14691						
OBS	456	3.03	34.228	27.29			14691	550	223	312	33	795	
STD	500	2.89	34.256	27.32	78.83	.458	14692						
STD	600	2.64	34.319	27.40	72.84	.534	14698						
OBS	668	2.51	34.359	27.44			14705	478	224	335	47	796	
STD	700	2.50	34.381	27.46	67.00	.604	14709						
STD	800	2.47	34.448	27.51	62.10	.669	14725						
OBS	879	2.46	34.497	27.55			14739	426	226	359	69	797	
STD	900	2.43	34.506	27.56	57.88	.729	14741						
STD	1000	2.28	34.547	27.61	53.98	.785	14751						
OBS	1078	2.19	34.577	27.64			14761	420	233	351	75	795	
OBS	1152	2.21	34.613	27.67			14774	418	241	344	81	795	
STD	1250	2.19	34.649	27.70	46.16	.910	14790						
OBS	1396	2.12	34.686	27.73			14812	422	238	339	85	796	
STD	1500	2.05	34.704	27.75	41.97	1.020	14826						
OBS	1647	1.94	34.721	27.77			14846	442	215	327	90	795	
STD	1750	1.87	34.727	27.79	38.94	1.121	14860						
OBS	1900	1.75	34.731	27.80			14880	451	215	326	97	795	
STD	2000	1.66	34.732	27.81	37.59	1.217	14893						
OBS	2159	1.51	34.732	27.82			14913	461	216	322	103	795	
STD	2250	1.44	34.730	27.82	35.79	1.309	14925						
OBS	2411	1.32	34.726	27.82			14947	470	218	321	107	795	
STD	2500	1.25	34.724	27.83	35.40	1.397	14959						
STD	2750	1.08	34.717	27.83	33.82	1.484	14994						
OBS	2936	.97	34.712	27.84			15021	481	223	318	112	793	
STD	3000	.94	34.711	27.84	33.17	1.568	15030						
STD	3250	.83	34.706	27.84	32.03	1.649	15067						
OBS	3452	.74	34.701	27.84			15099	487	213	323	116	793	
STD	3500	.71	34.698	27.84	31.75	1.729	15105						
STD	3750	.58	34.686	27.84	30.17	1.806	15142						
OBS	3969	.48	34.678	27.84			15177	504	207	327	118	792	
STD	4000	.47	34.679	27.84	29.26	1.881	15181						
OBS	4464	.44	34.697	27.86			15262	505	208	330	126	791	
STD	4500	.44	34.697	27.86	27.86	2.023	15267						
OBS	4704	.43	34.697	27.86			15304	510	213	334	136	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	354	29AUG1964	1506	6100S	12500W	4706	528	15	14				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			300	4	2.0	-1.0	285	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	.58	34.028	27.31			14506	791	190	284	32	808	
STD	0	.58	34.028	27.31	77.43	0.000	14506						
STD	10	.59	34.019	27.30	78.15	.008	14508						
STD	20	.59	34.013	27.30	78.58	.016	14509						
OBS	22	.59	34.012	27.30			14510	785	198	290	33	809	
STD	30	.58	34.012	27.30	78.56	.023	14511						
OBS	46	.57	34.013	27.30			14513	791	196	284	35	810	
STD	50	.57	34.013	27.30	78.41	.039	14513						
OBS	67	.58	34.011	27.30			14517	789	196	288	35	809	
STD	75	.57	34.008	27.30	78.92	.059	14517						
OBS	91	.53	34.004	27.30			14518	788	200	287	35	810	
STD	100	.52	34.005	27.30	78.61	.079	14519						
OBS	135	.51	34.021	27.31			14524	785	200	287	37	810	
STD	150	.50	34.029	27.32	76.63	.117	14526						
OBS	185	.52	34.060	27.34			14534	762	194	299	39	810	
STD	200	.62	34.090	27.36	72.67	.155	14541						
STD	250	.99	34.203	27.43	66.56	.189	14567						
OBS	278	1.22	34.274	27.47			14583	585	228	330	68	799	
STD	300	1.30	34.315	27.50	60.42	.221	14591						
OBS	372	1.46	34.430	27.58			14611	506	226	327	71	795	
STD	400	1.55	34.468	27.60	51.37	.277	14620						
STD	500	1.84	34.577	27.67	45.25	.325	14651						
OBS	564	1.98	34.626	27.70			14668	441	222	325	85	792	
STD	600	1.99	34.646	27.71	42.36	.369	14675						
STD	700	1.97	34.687	27.74	39.29	.410	14691						
OBS	759	1.92	34.699	27.76			14698	437	222	331	96	795	
STD	800	1.89	34.705	27.77	37.43	.448	14704						
STD	900	1.82	34.714	27.78	36.48	.485	14717						
OBS	959	1.78	34.716	27.78			14725	447	214	315	96	796	
STD	1000	1.76	34.719	27.79	35.99	.522	14731						
OBS	1207	1.65	34.696	27.78			14760	481	214	321	96	796	2
STD	1250	1.62	34.730	27.81	34.20	.609	14766						
OBS	1451	1.47	34.733	27.82			14793	465	215	314	100	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	355	30AUG1964	657	5859S	12512W	4237	492	85	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		270	4	3.7	2.0	310	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	2.99	33.984	27.10			14612	744	173	246	18	806	
STD	0	2.99	33.984	27.10	97.71	0.000	14612						
STD	10	2.99	33.977	27.09	98.22	.010	14613						
STD	20	2.98	33.972	27.09	98.58	.020	14615						
OBS	24	2.98	33.971	27.09			14615	739	180	245	16	804	
STD	30	2.98	33.970	27.09	98.75	.030	14616						
OBS	47	2.96	33.968	27.09			14618	743	179	243	15	806	
STD	50	2.96	33.973	27.09	98.44	.049	14619						
OBS	71	2.89	34.011	27.13			14619	709	185	247	14	807	
STD	75	2.83	34.012	27.13	94.79	.073	14617						
OBS	96	2.48	34.004	27.16			14606	743	192	265	14	808	
STD	100	2.43	34.003	27.16	92.02	.097	14604						
OBS	145	2.13	33.993	27.18			14598	745	194	267	16	807	
STD	150	2.12	33.993	27.18	90.41	.142	14598						
OBS	200	2.12	34.009	27.19			14607	712	197	268	21	807	
STD	200	2.12	34.009	27.19	89.39	.187	14607						
STD	250	2.23	34.077	27.24	85.42	.231	14621						
OBS	299	2.37	34.158	27.29			14636	608	220	314	45	797	
STD	300	2.37	34.159	27.29	80.67	.273	14636						
OBS	400	2.52	34.277	27.37			14660	521	223	320	49	795	
STD	400	2.52	34.277	27.37	73.86	.350	14660						
STD	500	2.44	34.346	27.43	67.84	.421	14674						
STD	600	2.31	34.399	27.49	63.73	.486	14685						
OBS	608	2.30	34.403	27.49			14686	455	217	324	67	793	
STD	700	2.37	34.475	27.54	58.80	.548	14705						
STD	800	2.44	34.545	27.59	54.64	.604	14726						
OBS	814	2.45	34.554	27.60			14728	409	210	331	80	793	
STD	900	2.38	34.585	27.63	51.61	.658	14740						
STD	1000	2.28	34.609	27.66	49.38	.708	14752						
OBS	1020	2.26	34.613	27.66			14755	413	212	329	80	792	
OBS	1195	2.21	34.658	27.70			14782	419	216	328	85	794	
STD	1250	2.18	34.672	27.72	44.30	.825	14790						
OBS	1436	2.06	34.709	27.76			14816	430	219	319	88	794	
STD	1500	2.03	34.713	27.76	41.07	.932	14825						
OBS	1687	1.92	34.717	27.77			14852	443	223	310	92	793	
STD	1750	1.88	34.722	27.78	39.46	1.032	14860						
OBS	1935	1.75	34.735	27.80			14886	450	221	306	94	794	
STD	2000	1.70	34.734	27.80	37.94	1.129	14894						
OBS	2189	1.54	34.728	27.81			14919	462	217	307	100	794	
STD	2250	1.50	34.728	27.81	36.65	1.222	14927						
OBS	2437	1.37	34.731	27.83			14954	463	218	292	109	793	
STD	2500	1.33	34.734	27.83	35.60	1.313	14962						
OBS	2689	1.22	34.738	27.84			14990	470	221	280	116	793	
STD	2750	1.19	34.733	27.84	34.01	1.400	14998						
OBS	2961	1.08	34.711	27.83			15030	474	226	297	122	792	
STD	3000	1.06	34.709	27.83	34.91	1.486	15035						
STD	3250	.94	34.707	27.83	33.60	1.572	15073						
CRS	3477	.84	34.703	27.84			15108	484	232	311	128	792	
STD	3500	.83	34.703	27.84	33.10	1.655	15111						
STD	3750	.73	34.702	27.85	31.14	1.735	15149						
STD	4000	.61	34.702	27.85	29.70	1.811	15187						
OBS	4004	.61	34.702	27.85			15189	496	227	306	132	791	
OBS	4263	.46	34.695	27.86			15227	508	223	296	137	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	356	31AUG1964	1300	5756S	12506W	4329	492	75	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		210	5	.4	-4.6	240	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	3.10	34.015	27.11			14617	739	174	252	13	807	
STD	0	3.10	34.015	27.11	96.31	0.000	14617						
STD	10	3.12	34.002	27.10	97.47	.010	14619						
OBS	12	3.12	34.001	27.10			14620	734	177	249	15	808	
STD	20	3.12	34.003	27.10	97.40	.019	14621						
OBS	28	3.11	34.008	27.11			14622	735	181	249	17	809	
STD	30	3.11	34.008	27.11	97.08	.029	14622						
OBS	44	3.13	34.004	27.10			14625	735	181	247	15	809	
STD	50	3.13	34.003	27.10	97.66	.049	14626						
OBS	62	3.13	34.003	27.10			14628	735	183	245	12	809	
STD	75	3.13	34.003	27.10	98.00	.073	14630						
STD	100	3.12	34.004	27.10	97.73	.098	14634						
OBS	107	3.12	34.005	27.10			14635	734	183	247	12	809	
OBS	143	3.15	34.011	27.10			14642	724	188	252	13	809	
STD	150	3.16	34.017	27.11	97.39	.146	14644						
STD	200	3.20	34.069	27.15	94.24	.194	14654						
OBS	224	3.23	34.101	27.17			14660	642	185	253	28	804	
STD	250	3.28	34.132	27.19	90.49	.240	14667						
STD	300	3.34	34.189	27.23	87.26	.285	14678						
OBS	313	3.35	34.203	27.24			14681	570	217	299	31	798	
STD	400	3.14	34.261	27.30	80.94	.369	14687						
OBS	494	2.81	34.306	27.37			14688	507	212	324	46	798	
STD	500	2.79	34.310	27.37	73.92	.446	14689						
STD	600	2.57	34.371	27.44	68.31	.517	14696						
OBS	683	2.45	34.425	27.50			14705	450	221	343	71	789	
STD	700	2.44	34.438	27.51	62.27	.583	14708						
STD	800	2.44	34.510	27.57	57.25	.643	14725						
OBS	884	2.44	34.565	27.61			14740	408	217	335	78	787	
STD	900	2.44	34.571	27.61	53.15	.698	14742						
STD	1000	2.40	34.603	27.64	51.05	.750	14757						
OBS	1144	2.33	34.631	27.67			14778	403	244	331	84	787	
STD	1250	2.28	34.656	27.70	46.53	.872	14794						
OBS	1373	2.21	34.682	27.72			14812	416	235	322	84	788	
STD	1500	2.14	34.704	27.75	42.98	.984	14830						
OBS	1621	2.06	34.719	27.76			14847	434	228	319	86	794	
STD	1750	1.97	34.729	27.78	40.07	1.088	14865						
OBS	1866	1.89	34.734	27.79			14880	443	227	311	90	789	
STD	2000	1.78	34.739	27.80	38.61	1.186	14898						
OBS	2111	1.69	34.741	27.81			14913	451	225	309	99	793	
STD	2250	1.58	34.742	27.82	36.68	1.280	14931						
OBS	2348	1.50	34.741	27.82			14944	461	218	309	106	794	
STD	2500	1.37	34.738	27.83	35.83	1.371	14964						
OBS	2588	1.30	34.734	27.83			14976	468	212	309	110	795	
STD	2750	1.21	34.720	27.83	35.19	1.459	14999						
OBS	2855	1.16	34.712	27.82			15015	474	212	309	122	794	
STD	3000	1.08	34.712	27.83	35.00	1.547	15036						
STD	3250	.96	34.718	27.84	33.09	1.632	15074						
OBS	3352	.92	34.722	27.85			15090	486	213	309	126	794	
STD	3500	.87	34.721	27.85	32.39	1.714	15112						
STD	3750	.80	34.718	27.85	31.10	1.793	15152						
OBS	3854	.77	34.716	27.85			15170	487	211	311	131	793	
STD	4000	.73	34.715	27.86	30.52	1.870	15193						
OBS	4261	.65	34.714	27.86			15236	498	211	319	134	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	357	1SEP1964	1955	5704S	12524W	4175	492	75	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		350	4	3.2	-3.8	350	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	3.71	34.063	27.09			14644	730	173	237	16	806	
STD	0	3.71	34.063	27.09	98.19	0.000	14644						
STD	10	3.71	34.057	27.09	98.69	.010	14645						
STD	20	3.71	34.053	27.09	99.02	.020	14647						
OBS	22	3.71	34.053	27.08			14647	725	173	240	14	807	
STD	30	3.70	34.053	27.09	99.00	.030	14648						
OBS	46	3.69	34.055	27.09			14650	725	177	245	13	807	
STD	50	3.70	34.054	27.09	98.99	.049	14651						
OBS	69	3.72	34.050	27.08			14655	724	179	243	14	809	
STD	75	3.72	34.050	27.08	99.92	.074	14656						
OBS	93	3.70	34.051	27.08			14658	724	180	240	16	812	
STD	100	3.68	34.049	27.08	99.50	.099	14658						
OBS	146	3.49	34.033	27.09			14658	717	178	248	14	811	
STD	150	3.48	34.032	27.09	99.22	.149	14658						
OBS	188	3.37	34.027	27.10			14659	709	181	256	15	811	
STD	200	3.36	34.032	27.10	98.46	.198	14661						
STD	250	3.37	34.065	27.13	96.49	.247	14670						
OBS	286	3.42	34.099	27.15			14678	642	182	269	17	807	
STD	300	3.44	34.112	27.16	94.03	.295	14681						
OBS	385	3.53	34.189	27.21			14700	573	211	312	30	804	
STD	400	3.49	34.196	27.22	89.13	.386	14701						
STD	500	3.13	34.238	27.29	82.61	.472	14702						
OBS	583	2.77	34.262	27.34			14701	529	212	334	39	802	
STD	600	2.74	34.271	27.35	77.41	.552	14702						
STD	700	2.62	34.328	27.40	72.26	.627	14714						
OBS	784	2.58	34.379	27.45			14727	464	218	346	56	796	
STD	800	2.57	34.389	27.46	67.51	.697	14729						
STD	900	2.48	34.447	27.51	62.82	.762	14742						
OBS	981	2.42	34.491	27.55			14754	424	215	347	66	796	
STD	1000	2.41	34.500	27.56	58.84	.823	14756						
OBS	1225	2.32	34.586	27.64			14791	410	225	346	82	793	
STD	1250	2.31	34.595	27.64	51.41	.961	14795						
OBS	1454	2.24	34.658	27.70			14826	415	221	339	84	794	
STD	1500	2.21	34.666	27.71	46.59	1.083	14833						
OBS	1689	2.10	34.691	27.74			14859	425	221	334	89	793	
STD	1750	2.07	34.699	27.75	43.42	1.196	14868						
OBS	1920	1.99	34.717	27.77			14894	439	220	328	92	794	
STD	2000	1.93	34.723	27.78	41.52	1.302	14904						
OBS	2157	1.79	34.729	27.79			14925	447	224	324	97	794	
STD	2250	1.72	34.730	27.80	39.33	1.403	14937						
OBS	2390	1.62	34.728	27.80			14957	458	217	325	111	794	
STD	2500	1.53	34.726	27.81	38.74	1.500	14971						
OBS	2625	1.43	34.723	27.81			14988	464	215	323	112	793	
STD	2750	1.33	34.719	27.82	36.87	1.595	15004						
OBS	2884	1.23	34.715	27.82			15023	471	212	319	122	793	
STD	3000	1.17	34.715	27.83	35.93	1.686	15040						
OBS	3116	1.11	34.715	27.83			15057	476	210	318	126	793	
STD	3250	1.04	34.712	27.83	34.53	1.774	15077						
OBS	3365	.98	34.709	27.83			15094	483	206	315	127	792	
STD	3500	.91	34.706	27.84	34.02	1.860	15114						
STD	3750	.78	34.700	27.84	32.11	1.942	15151						
STD	4000	.65	34.694	27.84	30.84	2.021	15189						
OBS	4018	.78	34.705	27.84			15199	487	210	314	128	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	358	3SEP1964	915	5600S	12456W	3541	492	64	21				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		255	8	3.9	-3.2	240	7						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	6.18	34.339	27.03			14749	680	172	200	12	805	
STD	0	6.18	34.339	27.03	104.23	0.000	14749						
STD	10	6.20	34.330	27.02	105.29	.010	14752						
STD	20	6.21	34.323	27.01	105.98	.021	14753						
OBS	23	6.21	34.322	27.01			14754	667	169	204	10	806	
STD	30	6.20	34.322	27.01	106.07	.032	14755						
OBS	48	6.18	34.322	27.02			14757	670	171	205	10	806	
STD	50	6.19	34.322	27.01	106.13	.053	14757						
OBS	68	6.24	34.323	27.01			14762	667	173	206	9	810	
STD	75	6.25	34.323	27.01	107.34	.080	14764						
OBS	91	6.25	34.324	27.01			14767	667	176	205	8	812	
STD	100	6.25	34.326	27.01	107.32	.106	14768						
OBS	136	6.27	34.331	27.01			14775	666	182	205	9	812	
STD	150	6.28	34.330	27.01	107.92	.160	14777						
OBS	186	6.29	34.326	27.00			14783	668	183	208	10	812	
STD	200	6.29	34.327	27.00	109.07	.214	14786						
STD	250	6.29	34.329	27.01	109.60	.269	14794						
OBS	274	6.29	34.331	27.01			14798	667	182	207	11	812	
STD	300	6.29	34.331	27.01	110.12	.324	14802						
OBS	361	6.24	34.326	27.01			14810	666	211	206	12	813	
STD	400	6.16	34.314	27.01	111.31	.435	14813						
STD	500	5.85	34.285	27.03	110.16	.545	14816						
OBS	539	5.69	34.274	27.04			14816	596	213	291	13	805	
STD	600	5.42	34.275	27.07	107.15	.654	14815						
STD	700	4.91	34.287	27.14	100.74	.758	14810						
OBS	717	4.82	34.290	27.16			14809	530	219	308	25	803	
STD	800	4.32	34.303	27.22	93.22	.855	14802						
STD	900	3.76	34.324	27.30	85.86	.945	14795						
OBS	909	3.71	34.326	27.30			14795	484	219	328	42	796	
STD	1000	3.35	34.353	27.36	79.84	1.027	14795						
OBS	1118	3.01	34.397	27.43			14800	452	219	337	56	795	
STD	1250	2.78	34.457	27.49	66.83	1.211	14813						
OBS	1320	2.70	34.488	27.53			14821	417	217	342	67	793	
STD	1500	2.51	34.549	27.59	58.64	1.368	14844						
OBS	1518	2.50	34.555	27.60			14846	407	216	335	76	792	
OBS	1727	2.37	34.625	27.66			14877	405	214	332	78	793	
STD	1750	2.36	34.631	27.67	51.77	1.506	14880						
OBS	1945	2.27	34.671	27.71			14909	411	217	333	86	793	
STD	2000	2.24	34.677	27.72	48.71	1.631	14917						
OBS	2198	2.12	34.694	27.74			14945	428	212	331	91	793	
STD	2250	2.08	34.701	27.75	45.94	1.750	14952						
OBS	2446	1.92	34.725	27.78			14979	443	211	322	94	793	
STD	2500	1.87	34.727	27.79	43.01	1.861	14985						
OBS	2703	1.67	34.727	27.80			15012	455	207	315	106	793	
STD	2750	1.63	34.726	27.80	40.33	1.965	15017						
OBS	2921	1.50	34.721	27.81			15041	461	208	316	111	792	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	359	5 SEP 1964	1215	5453S	12458W	3310	492	44	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		230	5	1.3	-4.0	230	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	6.06	34.311	27.02			14744	672	161	176	18	804	
STD	0	6.06	34.311	27.02	104.86	0.000	14744						
STD	10	6.07	34.305	27.02	105.50	.011	14746						
STD	20	6.07	34.300	27.01	106.00	.021	14748						
OBS	27	6.07	34.298	27.01			14749	671	162	177	12	805	
STD	30	6.07	34.297	27.01	106.31	.032	14749						
STD	50	6.06	34.296	27.01	106.55	.053	14752						
OBS	52	6.06	34.296	27.01			14752	670	160	177	10	806	
STD	75	6.07	34.295	27.01	107.25	.080	14756						
OBS	78	6.07	34.295	27.01			14757	672	160	178	10	807	
STD	100	6.08	34.298	27.01	107.19	.107	14761						
OBS	106	6.08	34.299	27.01			14762	671	162	180	13	808	
STD	150	6.07	34.299	27.01	107.64	.160	14769						
OBS	160	6.07	34.299	27.01			14770	670	164	179	13	811	
STD	200	6.08	34.300	27.01	108.41	.214	14777						
OBS	217	6.09	34.300	27.01			14780	672	169	181	14	810	
STD	250	6.09	34.299	27.01	109.20	.269	14785						
STD	300	6.08	34.297	27.01	109.95	.323	14793						
OBS	321	6.07	34.296	27.01			14796	670	192	180	12	810	
STD	400	6.06	34.291	27.01	111.73	.434	14808						
OBS	425	6.03	34.288	27.01			14811	665	196	178	13	804	
STD	500	5.61	34.255	27.03	109.33	.545	14806						
STD	600	4.96	34.219	27.08	105.64	.652	14795						
OBS	635	4.71	34.208	27.10			14790	597	198	223	23	801	
STD	700	4.50	34.224	27.14	100.38	.755	14792						
STD	800	4.21	34.262	27.20	94.87	.853	14797						
OBS	844	4.10	34.285	27.23			14800	508	207	251	35	797	
STD	900	3.88	34.306	27.27	88.60	.945	14800						
OBS	945	3.70	34.321	27.30			14800	488	222	269	41	794	
STD	1000	3.49	34.333	27.33	82.99	1.030	14800						
OBS	1052	3.31	34.344	27.35			14801	474	218	257	38	795	
OBS	1173	2.97	34.386	27.42			14807	451	218	197	56	795	
STD	1250	2.82	34.420	27.46	69.96	1.222	14814						
OBS	1401	2.60	34.488	27.53			14830	422	215	314	71	795	
STD	1500	2.49	34.529	27.58	59.85	1.384	14843						
OBS	1639	2.38	34.580	27.63			14862	410	216	309	76	795	
STD	1750	2.33	34.610	27.65	52.95	1.525	14878						
OBS	1880	2.28	34.639	27.68			14898	414	226	305	83	795	
STD	2000	2.22	34.665	27.71	49.23	1.653	14916						
OBS	2131	2.13	34.689	27.73			14934	425	226	298	87	794	
STD	2250	2.03	34.702	27.75	45.25	1.771	14950						
OBS	2376	1.92	34.709	27.77			14967	434	222	289	93	794	
STD	2500	1.79	34.705	27.77	43.60	1.882	14982						
OBS	2630	1.66	34.698	27.78			14998	438	214	314	99	793	
STD	2750	1.58	34.700	27.78	41.65	1.988	15015						
OBS	2904	1.52	34.704	27.79			15039	443	214	329	109	793	
STD	3000	1.49	34.706	27.80	41.04	2.092	15054						
OBS	3160	1.46	34.707	27.80			15080	443	209	326	112	793	
OBS	3236	1.44	34.705	27.80			15092	443	211	322	113	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 14	360	8SEP1964	501	5503S	12636W	4325	492	56	22				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		200	6	2.2	-4.0	180	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	6.36	34.362	27.02			14757	665	141	163	8	814	
STD	0	6.36	34.362	27.02	104.73	0.000	14757						
STD	10	6.37	34.356	27.02	105.41	.011	14759						
STD	20	6.38	34.352	27.01	105.93	.021	14761						
OBS	26	6.38	34.350	27.01			14762	666	145	166	7	816	
STD	30	6.38	34.349	27.01	106.26	.032	14762						
STD	50	6.37	34.348	27.01	106.53	.053	14765						
OBS	57	6.37	34.348	27.01			14766	666	145	169	9	815	
STD	75	6.38	34.347	27.01	107.22	.080	14769						
OBS	87	6.39	34.347	27.01			14772	663	143	169	8	815	
STD	100	6.40	34.346	27.01	107.60	.107	14774						
OBS	116	6.41	34.346	27.00			14777	663	144	170	6	815	
STD	150	6.40	34.346	27.01	108.28	.161	14782						
OBS	172	6.39	34.347	27.01			14785	663	147	173	7	816	
STD	200	6.41	34.350	27.01	108.76	.215	14791						
OBS	229	6.43	34.354	27.01			14796	663	143	176	9	815	
STD	250	6.43	34.354	27.01	109.52	.269	14800						
STD	300	6.42	34.353	27.01	110.29	.324	14808						
OBS	339	6.42	34.352	27.01			14814	665	143	174	8	815	
STD	400	6.32	34.337	27.01	111.73	.435	14819						
OBS	445	6.21	34.323	27.01			14822	660	148	172	7	815	
STD	500	6.02	34.305	27.02	110.96	.547	14823						
STD	600	5.63	34.278	27.05	109.56	.657	14823						
OBS	627	5.51	34.273	27.06			14823		175	175	10	807	
STD	700	5.22	34.275	27.10	105.42	.764	14823						
STD	800	4.80	34.287	27.15	100.23	.867	14822						
OBS	822	4.71	34.291	27.17			14822	524	182	223	25	805	
STD	900	4.36	34.301	27.21	94.68	.965	14820						
STD	1000	3.92	34.316	27.27	89.28	1.057	14818						
OBS	1014	3.86	34.318	27.28			14818	497	213	233	34	806	
STD	1250	3.23	34.401	27.41	76.06	1.263	14831						
STD	1500	2.71	34.487	27.52	65.48	1.440	14851						
STD	1750	2.34	34.571	27.62	56.00	1.592	14878						
STD	2000	2.13	34.652	27.70	49.20	1.724	14912						
OBS	2194	2.08	34.714	27.76			14943	426	214	268	84	796	
STD	2250	2.02	34.718	27.77	43.96	1.840	14950						
STD	2500	1.78	34.718	27.78	42.60	1.948	14982						
STD	2750	1.59	34.721	27.80	40.18	2.052	15016						
OBS	2839	1.53	34.722	27.81			15028	446	217	295	106	793	
STD	3000	1.43	34.722	27.81	39.01	2.151	15051						
OBS	3061	1.40	34.722	27.82			15061	455	221	307	108	793	
STD	3250	1.34	34.720	27.82	38.25	2.247	15090						
OBS	3274	1.34	34.720	27.82			15094	455	223	315	110	793	
OBS	3473	1.32	34.723	27.82			15128	453	226	310	111	792	
STD	3500	1.32	34.723	27.82	38.75	2.344	15132						
OBS	3669	1.31	34.721	27.82			15161	456	224	308	114	792	
STD	3750	1.29	34.721	27.82	38.20	2.440	15174						
OBS	3878	1.25	34.699	27.81			15195	466	223	309	113	791	2
STD	4000	1.23	34.721	27.83	37.88	2.535	15215						
OBS	4297	1.22	34.721	27.83			15267	474	221	314	114	790	
OBS	4486	1.22	34.719	27.83			15300	473	212	316	113	790	
STD	4500	1.22	34.719	27.83	39.04	2.727	15301						
OBS	4632	1.22	34.721	27.83			15325	478	210	321	115	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	361	11OCT1964	36	6057S	9504W	4956	525	5	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			275	7	4.2	1.0	275	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.88	34.104	27.20			14609	727	189	258	15		
STD	0	2.88	34.104	27.20	87.71	0.000	14609						
STD	10	2.88	34.096	27.20	88.34	.009	14610						
STD	20	2.88	34.090	27.19	88.81	.018	14612						
OBS	26	2.88	34.088	27.19			14613	735	192	259	14	808	
STD	30	2.88	34.087	27.19	89.07	.027	14613						
STD	50	2.88	34.087	27.19	89.19	.044	14617						
OBS	52	2.88	34.087	27.19			14617	727	188	265	14	809	
STD	75	2.87	34.086	27.19	89.52	.067	14620						
OBS	77	2.87	34.086	27.19			14620	728	191	254	15	809	
STD	100	2.85	34.086	27.19	89.22	.089	14623						
OBS	102	2.85	34.086	27.19			14624	729	191	262	14	809	
STD	150	2.83	34.087	27.19	89.24	.134	14631						
OBS	154	2.83	34.087	27.19			14631	726	190	268	15	803	
STD	200	2.68	34.091	27.21	87.88	.178	14632						
OBS	208	2.65	34.092	27.21			14632	713	194	277	17	808	
STD	250	2.49	34.096	27.23	86.06	.221	14632						
STD	300	2.33	34.109	27.25	84.10	.264	14633						
OBS	310	2.30	34.112	27.26			14634	686	208	277	21	803	
STD	400	2.29	34.171	27.31	79.79	.346	14649						
OBS	410	2.30	34.179	27.31			14651	679	223	302	33	800	
STD	500	2.31	34.240	27.36	74.65	.423	14667						
STD	600	2.31	34.308	27.41	70.56	.496	14684						
OBS	612	2.31	34.316	27.42			14686	514	239	335	50	794	
STD	700	2.28	34.380	27.47	65.07	.564	14700						
STD	800	2.25	34.448	27.53	60.02	.626	14716						
OBS	805	2.25	34.451	27.53			14717	448	246	344	68	790	
STD	900	2.26	34.500	27.57	56.72	.684	14734						
STD	1000	2.28	34.543	27.61	54.27	.740	14751						
OBS	1019	2.28	34.550	27.61			14755	418	239	325	74	790	
STD	1250	2.19	34.629	27.68	47.56	.867	14790						
OBS	1301	2.16	34.643	27.69			14797	416	227	255	78	788	5
STD	1500	2.09	34.685	27.73	43.76	.981	14827						
OBS	1542	2.07	34.692	27.74			14834	424	230	330	86	782	
STD	1750	1.97	34.712	27.76	41.27	1.088	14864						
OBS	1871	1.89	34.717	27.78			14881	436	225	309	93	790	
STD	2000	1.76	34.722	27.79	39.61	1.189	14897						
OBS	2130	1.63	34.724	27.80			14913	449	223	322	99	789	
STD	2250	1.55	34.723	27.81	37.60	1.285	14929						
STD	2500	1.40	34.719	27.81	37.52	1.379	14965						
OBS	2517	1.39	34.719	27.81			14968	459	224	311	105	788	
STD	2750	1.25	34.717	27.82	36.00	1.471	15001						
STD	3000	1.12	34.715	27.83	35.25	1.560	15038						
OBS	3013	1.11	34.715	27.83			15040	474	227	320	115	788	
STD	3250	.99	34.710	27.83	34.00	1.647	15075						
STD	3500	.87	34.704	27.84	33.50	1.731	15112						
OBS	3511	.86	34.704	27.84			15114	485	228	329	122	787	
STD	3750	.73	34.701	27.84	31.35	1.812	15149						
STD	4000	.61	34.699	27.85	29.94	1.889	15188						
OBS	4009	.61	34.699	27.85			15190	498	221	323	128	787	
OBS	4406	.49	34.698	27.86			15254	498	219	307	134	785	
STD	4500	.48	34.698	27.86	28.44	2.035	15269						
OBS	4705	.46	34.698	27.86			15305	502	219	330	134	786	
STD	5000	.44	34.697	27.86	28.27	2.177	15356						
OBS	5003	.44	34.697	27.86			15357	506	222	301	137	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	362	11OCT1964	2042	6028S	9457W	5047	525	4	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			220	4	1.3	-2.2	270	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.73	34.084	27.20			14602	733	185	271	14		
STD	0	2.73	34.084	27.20	87.98	0.000	14602						
STD	10	2.73	34.084	27.20	88.00	.009	14604						
STD	20	2.73	34.084	27.20	88.03	.018	14605						
OBS	25	2.73	34.084	27.20			14606	731	187	274	14	806	
STD	30	2.73	34.084	27.20	88.03	.026	14607						
STD	50	2.73	34.085	27.20	88.06	.044	14610						
OBS	51	2.73	34.085	27.20			14610	730	186	265	14	805	
STD	75	2.73	34.079	27.20	88.81	.066	14614						
OBS	77	2.73	34.079	27.20			14614	729	176	270	17	809	
STD	100	2.74	34.080	27.20	88.75	.088	14619						
OBS	104	2.74	34.080	27.20			14619	729	191	268	17	809	
STD	150	2.56	34.087	27.22	86.84	.132	14619						
OBS	155	2.53	34.088	27.22			14618	716	195	279	19	808	
STD	200	2.36	34.088	27.23	85.42	.175	14618						
OBS	210	2.33	34.088	27.24			14619	720	172	282	18	808	
STD	250	2.32	34.105	27.25	83.98	.218	14625						
STD	300	2.30	34.135	27.28	81.94	.259	14633						
OBS	312	2.30	34.143	27.28			14635	655		303	26	804	
STD	400	2.26	34.190	27.32	78.06	.339	14648						
OBS	414	2.25	34.198	27.33			14650	603	227	315	35	799	
STD	500	2.18	34.250	27.38	72.70	.414	14661						
STD	600	2.12	34.315	27.44	68.24	.485	14676						
OBS	617	2.11	34.327	27.45			14678	518	232	341	51	793	
STD	700	2.14	34.386	27.49	63.26	.551	14694						
STD	800	2.19	34.454	27.54	58.94	.612	14713						
OBS	823	2.20	34.469	27.55			14718	447	232	348	64	787	
STD	900	2.23	34.522	27.59	54.77	.669	14733						
STD	1000	2.20	34.591	27.65	49.88	.721	14748						
OBS	1030	2.19	34.569	27.63			14753	421	244	351	72	788	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	363	12OCT1964	725	6006S	9503W	4811	525	5	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		235	5	1.2	-6.0	290	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	2.95	34.091	27.19			14612	725	180	275	16	805	
STD	0	2.95	34.091	27.19	89.29	0.000	14612						
STD	10	2.95	34.086	27.18	89.73	.009	14613						
STD	20	2.95	34.082	27.18	90.07	.018	14615						
OBS	25	2.95	34.080	27.18			14615	722	182	275	16	805	
STD	30	2.95	34.079	27.18	90.27	.027	14616						
OBS	50	2.91	34.077	27.18			14618	722	180	273	15	801	
STD	50	2.91	34.077	27.18	90.18	.045	14618						
STD	75	2.75	34.070	27.19	89.69	.067	14615						
OBS	76	2.74	34.070	27.19			14614	724	185	279	17	808	
STD	100	2.34	34.073	27.22	85.94	.089	14601						
OBS	101	2.32	34.073	27.23			14600	721	187	293	19	806	
STD	150	2.11	34.076	27.25	84.06	.132	14599						
OBS	153	2.11	34.076	27.25			14600	728	190	291	17	808	
STD	200	1.95	34.073	27.26	83.21	.174	14600						
OBS	207	1.93	34.073	27.26			14600	729	176	298	20	807	
STD	250	2.00	34.095	27.27	82.17	.215	14611						
STD	300	2.17	34.137	27.29	80.69	.256	14627						
OBS	306	2.20	34.143	27.29			14629	638	194	315	30	804	
STD	400	2.39	34.242	27.36	75.38	.334	14654						
OBS	406	2.40	34.248	27.36			14656	551	209	334	40	799	
STD	500	2.35	34.311	27.41	69.66	.406	14670						
STD	600	2.22	34.365	27.47	65.49	.474	14681						
OBS	607	2.21	34.368	27.47			14682	484	224	294	57	784	
STD	700	2.18	34.429	27.52	60.46	.537	14696						
STD	800	2.18	34.491	27.57	56.13	.595	14714						
OBS	815	2.18	34.500	27.58			14716	432	225	334	69	788	
STD	900	2.20	34.542	27.61	52.90	.650	14731						
STD	1000	2.22	34.584	27.64	50.60	.701	14749						
OBS	1020	2.22	34.591	27.65			14753	415	221	338	75	781	
OBS	1225	2.17	34.644	27.69			14785	413	214	327	80	784	
STD	1250	2.16	34.650	27.70	45.76	.822	14789						
OBS	1467	2.05	34.687	27.74			14820	425	211	333	82	785	
STD	1500	2.03	34.690	27.74	42.74	.933	14825						
STD	1750	1.85	34.705	27.77	40.33	1.036	14859						
OBS	1757	1.84	34.705	27.77			14860	437	207	332	87	785	
STD	2000	1.66	34.703	27.78	39.75	1.137	14892						
OBS	2144	1.56	34.700	27.79			14912	451	211		97	793	
STD	2250	1.50	34.700	27.79	38.68	1.235	14927						
STD	2500	1.36	34.702	27.80	38.25	1.331	14963						
OBS	2529	1.34	34.702	27.80			14968	462	213	333	102	785	
STD	2750	1.22	34.704	27.81	36.59	1.424	15000						
STD	3000	1.09	34.704	27.82	35.71	1.515	15036						
OBS	3024	1.08	34.704	27.82			15040	475	214	331	108	786	
STD	3250	.94	34.700	27.83	34.10	1.602	15073						
STD	3500	.80	34.694	27.83	33.27	1.686	15109						
OBS	3518	.79	34.694	27.83			15112	485	205	331	116	791	
STD	3750	.68	34.691	27.84	31.23	1.767	15147						
STD	4000	.58	34.690	27.84	30.13	1.843	15186						
OBS	4014	.58	34.690	27.84			15189	492	202	324	120	790	
OBS	4412	.50	34.690	27.85			15255	500	204	328	123	792	
STD	4500	.50	34.689	27.85	29.37	1.992	15270						
OBS	4710	.49	34.688	27.85			15307	502	210	330	126	785	
STD	5000	.46	34.695	27.85	28.79	2.138	15356						
OBS	5010	.46	34.695	27.86			15359	507	223	333	125		

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	364	13OCT1964	745	5924S	9511W	4744	489	95	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		60	5	1.5	1.3	250	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	2.68	34.056	27.18			14599	734	195	269	16	790	
STD	0	2.68	34.056	27.18	89.68	0.000	14599						
STD	10	2.69	34.061	27.19	89.42	.009	14602						
STD	20	2.70	34.065	27.19	89.24	.018	14604						
OBS	26	2.70	34.066	27.19			14605	733	191	268	16	791	
STD	30	2.70	34.066	27.19	89.17	.027	14605						
STD	50	2.69	34.066	27.19	89.17	.045	14608						
OBS	55	2.69	34.066	27.19			14609	734	192	268	15	790	
STD	75	2.65	34.067	27.19	89.07	.067	14610						
OBS	83	2.63	34.068	27.20			14611	738	194	271	16	790	
STD	100	2.58	34.069	27.20	88.17	.089	14611						
OBS	111	2.54	34.070	27.21			14611	728	195	275	17	793	
STD	150	2.41	34.074	27.22	86.65	.133	14612						
OBS	166	2.37	34.078	27.23			14613	710	198	284	20	792	
STD	200	2.31	34.097	27.25	84.30	.176	14616						
OBS	222	2.28	34.111	27.26			14619	679	212	298	23	784	
STD	250	2.18	34.118	27.27	81.87	.217	14619						
STD	300	2.03	34.132	27.30	79.82	.257	14620						
OBS	329	1.95	34.141	27.31			14622	654	224	305	29	785	
STD	400	2.02	34.194	27.35	75.71	.335	14637						
OBS	433	2.08	34.223	27.37			14646	586	228	323	36	778	
STD	500	2.16	34.279	27.40	70.35	.408	14661						
STD	600	2.23	34.357	27.46	66.20	.477	14681						
OBS	639	2.25	34.385	27.48			14689	476	252	350	55	774	
STD	700	2.22	34.418	27.51	61.70	.541	14698						
STD	800	2.17	34.466	27.55	57.87	.600	14713						
OBS	848	2.14	34.487	27.57			14720	441	248	346	64	768	
STD	900	2.14	34.513	27.59	54.51	.656	14728						
STD	1000	2.17	34.565	27.63	51.59	.710	14747						
OBS	1045	2.20	34.588	27.65			14756	419	247	348	61	767	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	365	13OCT1964	1643	5859S	9504W	4479	489	85	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			225	5	2.1	-4.1	220	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	4.12	34.122	27.10			14662	713	156	255	9	800	
STD	0	4.12	34.122	27.10	97.70	0.000	14662						
STD	10	4.11	34.116	27.09	98.14	.010	14663						
STD	20	4.10	34.111	27.09	98.50	.020	14664						
OBS	28	4.10	34.108	27.09			14665	711	158	256	7	801	
STD	30	4.10	34.108	27.09	98.78	.029	14666						
STD	50	4.11	34.106	27.09	99.11	.049	14669						
OBS	59	4.11	34.106	27.09			14671	715	158	255	10	807	
STD	75	4.11	34.106	27.09	99.52	.074	14673						
OBS	88	4.10	34.106	27.09			14675	711	155	256	9	810	
STD	100	4.09	34.106	27.09	99.31	.099	14677						
OBS	118	4.08	34.106	27.09			14679	706	161	256	8	814	
STD	150	4.09	34.110	27.09	99.37	.149	14685						
OBS	176	4.09	34.113	27.09			14689	697	165	266	9	814	
STD	200	4.03	34.110	27.10	99.23	.198	14690						
OBS	235	3.93	34.104	27.10			14692	685	173	276	11	816	
STD	250	3.90	34.105	27.11	98.69	.248	14693						
STD	300	3.81	34.107	27.12	98.08	.297	14697						
OBS	348	3.75	34.110	27.13			14702	668	176	279	12	809	
STD	400	3.70	34.135	27.15	95.90	.394	14709						
OBS	457	3.64	34.170	27.18			14716	601	191	322	22	800	
STD	500	3.54	34.196	27.22	89.83	.487	14719						
STD	600	3.29	34.255	27.29	84.05	.574	14725						
OBS	669	3.09	34.294	27.34			14729	503	222	323	42	788	
STD	700	3.01	34.307	27.35	77.77	.655	14731						
STD	800	2.79	34.346	27.40	73.02	.730	14738						
OBS	879	2.64	34.375	27.44			14745	468	226	369	53	785	
STD	900	2.61	34.385	27.45	68.73	.801	14747						
STD	1000	2.47	34.433	27.50	64.37	.867	14758						
OBS	1078	2.39	34.472	27.54			14768	433	223	362	66	783	
OBS	1234	2.31	34.545	27.60			14791	429	235	370	75	784	
STD	1250	2.30	34.551	27.61	54.56	1.016	14794						
OBS	1478	2.21	34.624	27.68			14828	418	223	357	80	790	
STD	1500	2.20	34.630	27.68	49.10	1.146	14832						
OBS	1721	2.10	34.681	27.73			14865	431	219	343	83	785	
STD	1750	2.09	34.685	27.73	44.56	1.263	14869						
STD	2000	1.94	34.708	27.76	42.74	1.372	14905						
OBS	2016	1.93	34.709	27.77			14907	436	219	344	89	783	
STD	2250	1.75	34.717	27.79	40.64	1.476	14938						
OBS	2307	1.71	34.718	27.79			14946	442	210	338	97	784	
STD	2500	1.57	34.720	27.80	39.67	1.577	14973						
OBS	2603	1.50	34.720	27.81			14987	456	210	342	102	786	
STD	2750	1.40	34.718	27.81	37.93	1.674	15008						
OBS	2998	1.25	34.712	27.82			15043	468	209	351	109	785	
STD	3000	1.25	34.712	27.82	37.26	1.768	15043						
STD	3250	1.11	34.708	27.82	35.83	1.859	15080						
OBS	3393	1.04	34.706	27.83			15102	474	206	351	116	782	
STD	3500	1.00	34.705	27.83	35.34	1.948	15118						
OBS	3742	.90	34.702	27.83			15156	490	210	350	122	784	
STD	3750	.90	34.702	27.83	33.70	2.034	15157						
STD	4000	.80	34.697	27.84	32.87	2.117	15195						
OBS	4040	.55	34.696	27.85			15192	495	211	251	130	781	1
OBS	4337	.57	34.698	27.85			15245	495	216	357	129	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 15	366	16OCT1964	242	5901S	9951W	5061	489	99	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
25	3	2.6	2.5	290	6

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	3.56	34.112	27.15			14638	712	162	242	10	808	
STD	0	3.56	34.112	27.15	93.11	0.000	14638						
STD	10	3.55	34.104	27.14	93.66	.009	14639						
STD	20	3.55	34.099	27.14	94.12	.019	14641						
OBS	25	3.55	34.097	27.14			14641	715	165	245	11	802	
STD	30	3.55	34.096	27.13	94.39	.028	14642						
OBS	50	3.57	34.096	27.13			14646	714	165	241	11	810	
STD	50	3.57	34.096	27.13	94.66	.047	14646						
OBS	75	3.56	34.096	27.13			14650	715	173	243	11	810	
STD	75	3.56	34.096	27.13	94.96	.071	14650						
OBS	100	3.57	34.095	27.13			14654	713	167	244	10	811	
STD	100	3.57	34.095	27.13	95.03	.095	14654						
OBS	150	3.56	34.098	27.14			14662	713	170	245	10	812	
STD	150	3.56	34.098	27.14	95.04	.142	14662						
STD	200	3.55	34.098	27.14	95.32	.190	14670						
OBS	205	3.55	34.098	27.14			14670	715	168	245	10	811	
STD	250	3.48	34.093	27.14	95.43	.237	14675						
STD	300	3.37	34.088	27.15	95.08	.285	14678						
OBS	302	3.36	34.088	27.15			14678	703	164	252	12	812	
STD	400	3.11	34.103	27.18	92.33	.379	14683						
OBS	402	3.10	34.104	27.18			14683	672	185	279	17	809	
STD	500	2.97	34.159	27.24	86.91	.468	14694						
STD	600	2.88	34.231	27.30	81.75	.553	14708						
OBS	601	2.88	34.232	27.31			14708	555	214	319	36	801	
STD	700	2.72	34.297	27.37	75.46	.631	14718						
STD	800	2.55	34.359	27.44	69.51	.704	14728						
OBS	803	2.54	34.361	27.44			14728	479	218	341	54	796	
STD	900	2.40	34.411	27.49	64.68	.771	14738						
STD	1000	2.29	34.459	27.54	60.64	.833	14751						
OBS	1004	2.29	34.461	27.54			14751	446	222	349	66	792	
STD	1250	2.29	34.581	27.63	52.20	.974	14793						
OBS	1257	2.29	34.584	27.64			14795	414	219	343	76	794	
OBS	1499	2.20	34.651	27.70			14832	413	228	335	80	794	
STD	1500	2.20	34.651	27.70	47.55	1.099	14832						
OBS	1740	2.06	34.691	27.74			14866	427	215	325	84	796	
STD	1750	2.05	34.692	27.74	43.68	1.213	14868						
STD	2000	1.91	34.714	27.77	41.91	1.320	14903						
OBS	2030	1.89	34.716	27.77			14908	437	218	319	87	794	
STD	2250	1.72	34.724	27.79	39.75	1.422	14937						
OBS	2411	1.60	34.726	27.80			14959	456	208	317	96	796	
STD	2500	1.54	34.726	27.81	38.92	1.521	14972						
STD	2750	1.40	34.723	27.82	37.47	1.616	15007						
OBS	2892	1.32	34.720	27.82			15028	462	206	320	103	793	
STD	3000	1.26	34.718	27.82	36.95	1.709	15044						
STD	3250	1.12	34.714	27.83	35.53	1.800	15080						
OBS	3379	1.05	34.712	27.83			15100	474	214	318	112	792	
STD	3500	.98	34.709	27.83	34.76	1.888	15117						
STD	3750	.84	34.705	27.84	32.59	1.972	15154						
OBS	3867	.77	34.703	27.84			15172	485	213	325	118	791	
STD	4000	.70	34.703	27.85	30.90	2.051	15191						
OBS	4259	.58	34.704	27.86			15232	495	220	325	122	791	
STD	4500	.53	34.702	27.86	28.99	2.201	15271						
OBS	4652	.51	34.700	27.86			15298	501	220	290	129	789	
OBS	4898	.49	34.700	27.86			15341	498	220	336	128	791	

SHIP / CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	367	17OCT1964	453	5821S	9953W	4647	489	89	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		210	4	2.5	-1.8	290	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x 10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.51	34.108	27.15			14636	711	164	243	12		
STD	0	3.51	34.108	27.15	92.95	0.000	14636						
STD	10	3.52	34.099	27.14	93.75	.009	14638						
STD	20	3.52	34.092	27.13	94.32	.019	14639						
OBS	25	3.52	34.090	27.13			14640	711	167	241	12	807	
STD	30	3.52	34.090	27.13	94.53	.028	14641						
STD	50	3.52	34.091	27.13	94.59	.047	14644						
OBS	51	3.52	34.091	27.13			14644	712	163	240	12	810	
STD	75	3.47	34.083	27.13	95.17	.071	14646						
OBS	77	3.47	34.082	27.13			14646	712	170	244	11	812	
STD	100	3.41	34.082	27.14	94.56	.095	14648						
OBS	102	3.41	34.082	27.14			14648	711	173	242	12	812	
STD	150	3.38	34.078	27.14	94.83	.142	14654						
OBS	154	3.38	34.078	27.14			14655	714	179	242	12	811	
STD	200	3.26	34.075	27.15	94.27	.189	14657						
OBS	210	3.23	34.075	27.15			14657	712	178	248	13	812	
STD	250	3.07	34.073	27.16	92.96	.236	14657						
STD	300	2.88	34.071	27.18	91.77	.282	14657						
OBS	312	2.84	34.071	27.18			14657	698	186	260	14	810	
STD	400	2.78	34.104	27.21	89.20	.373	14669						
OBS	415	2.78	34.112	27.22			14672	661	192	277	19	807	
STD	500	2.84	34.179	27.27	84.08	.459	14689						
STD	600	2.89	34.266	27.33	79.27	.541	14709						
OBS	620	2.90	34.284	27.34			14713	515	225	317	40	797	
STD	700	2.81	34.337	27.40	73.41	.617	14722						
STD	800	2.65	34.393	27.45	68.04	.688	14732						
OBS	825	2.60	34.405	27.47			14735	455	230	330	56	794	
STD	900	2.49	34.449	27.51	62.76	.753	14743						
STD	1000	2.34	34.508	27.57	57.51	.814	14754						
OBS	1027	2.30	34.479	27.55			14756		227	332	60	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	368	17OCT1964	1351	5757S	10006W	4356	490	70	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			250	7	2.6	-3.5	245	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	4.34	34.141	27.09			14671	712	156	223	7	803	
STD	0	4.34	34.141	27.09	98.47	0.000	14671						
STD	10	4.34	34.134	27.08	99.09	.010	14673						
STD	20	4.34	34.129	27.08	99.55	.020	14674						
OBS	24	4.34	34.127	27.08			14675	708	159	221	7	808	
STD	30	4.34	34.126	27.08	99.84	.030	14676						
STD	50	4.35	34.125	27.08	100.13	.050	14680						
OBS	51	4.35	34.125	27.08			14680	710	153	222	7	811	
STD	75	4.35	34.124	27.08	100.64	.075	14684						
OBS	77	4.35	34.124	27.08			14684	710	156	223	5	810	
STD	100	4.35	34.123	27.07	100.66	.100	14688						
OBS	103	4.35	34.123	27.07			14688	708	161	223	6	811	
STD	150	4.33	34.121	27.07	101.04	.150	14695						
OBS	153	4.33	34.121	27.07			14695	707	164	223	7	814	
STD	200	4.32	34.124	27.08	101.21	.201	14703						
OBS	206	4.32	34.124	27.08			14703	708	152	230	7	812	
STD	250	4.24	34.121	27.08	101.02	.252	14707						
STD	300	4.13	34.117	27.09	100.69	.302	14711						
OBS	307	4.12	34.117	27.09			14711	701	157	228	7	814	
STD	400	4.10	34.132	27.11	100.37	.403	14726						
OBS	405	4.10	34.133	27.11			14727	650	171	252	11	809	
STD	500	3.90	34.168	27.16	95.72	.501	14734						
OBS	598	3.60	34.212	27.22			14738	564	205	294	25	805	
STD	600	3.59	34.213	27.22	90.44	.594	14738						
STD	700	3.27	34.252	27.29	84.54	.681	14741						
OBS	795	2.99	34.292	27.34			14745	507	218	319	38	798	
STD	800	2.98	34.295	27.35	78.75	.763	14745						
STD	900	2.78	34.348	27.41	73.33	.839	14754						
OBS	985	2.66	34.393	27.45			14763	458	236	337	51	795	
STD	1000	2.64	34.400	27.46	68.66	.910	14765						
OBS	1181	2.46	34.473	27.53			14788	434	240	339	61		
STD	1250	2.42	34.501	27.56	59.52	1.070	14798						
OBS	1413	2.34	34.558	27.61			14822	413	238	331	67		
STD	1500	2.30	34.578	27.63	54.12	1.212	14835						
OBS	1657	2.40	34.607	27.65			14866	413	219	315	57	793	1
STD	1750	2.19	34.626	27.68	50.11	1.342	14872						
OBS	1941	2.09	34.661	27.71			14901	422	203	312	69	789	
STD	2000	2.05	34.669	27.72	46.87	1.464	14909						
STD	2250	1.85	34.694	27.76	43.54	1.577	14942						
OBS	2316	1.80	34.698	27.77			14951	432	207	316	88	776	
STD	2500	1.69	34.695	27.77	42.96	1.685	14977						
OBS	2712	1.57	0.000	0.00			0						
STD	2750	1.55	34.688	27.78	42.02	1.791	15013						
STD	3000	1.41	34.676	27.78	42.02	1.896	15050						
OBS	3098	1.35	34.670	27.78			14966	470	217	318	75	790	
STD	3250	1.24	34.675	27.79	40.02	1.999	15085						
OBS	3477	1.07	34.635	27.77			15018	476	215	311	77	787	2
STD	3500	1.05	34.683	27.81	37.72	2.096	15120						
STD	3750	.88	34.690	27.83	34.21	2.186	15155						
OBS	3869	.80	34.694	27.83			15074	482	210	317	110	784	
STD	4000	.73	34.692	27.84	32.17	2.269	15192						
OBS	4170	.65	34.689	27.84			15120	485	216	328	108	785	
OBS	4418	.57	34.691	27.85			15159	491	228	319	112	783	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	369	19OCT1964	5	5955S	10120W	4801	490	91	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			305	7	5.0	5.0	290	7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.55	34.083	27.22			14594	717	191	274	18	798	
STD	0	2.55	34.083	27.22	86.59	0.000	14594						
STD	10	2.55	34.076	27.21	87.16	.009	14596						
OBS	19	2.55	34.071	27.21			14597	713	169	272	17	801	
STD	20	2.55	34.071	27.21	87.58	.017	14597						
STD	30	2.54	34.067	27.20	87.84	.026	14599						
OBS	40	2.54	34.065	27.20			14600	712	195	273	18	802	
STD	50	2.54	34.065	27.20	88.01	.044	14602						
OBS	61	2.54	34.066	27.20			14603	715	211	272	17	808	
STD	75	2.53	34.068	27.20	88.04	.066	14605						
OBS	81	2.53	34.069	27.21			14606	712	187	273	19	807	
STD	100	2.52	34.068	27.21	87.82	.088	14609						
OBS	121	2.50	34.065	27.20			14611	712	189	272	17	809	
STD	150	2.40	34.063	27.21	87.40	.132	14612						
OBS	162	2.36	34.063	27.21			14612	720	186	274	18	810	
STD	200	2.33	34.074	27.23	86.18	.175	14617						
OBS	237	2.41	34.100	27.24			14627	676	193	283	22	806	
STD	250	2.51	34.119	27.25	84.53	.218	14633						
STD	300	2.83	34.187	27.27	82.68	.259	14656						
OBS	310	2.89	34.199	27.28			14661	581	205	312	33	802	
STD	400	2.15	34.133	27.29	81.40	.341	14642						
OBS	453	1.62	34.078	27.28			14627	705	197	277	19	809	
STD	500	1.80	34.106	27.29	80.31	.422	14643						
STD	600	2.40	34.207	27.33	78.96	.502	14687						
OBS	604	2.43	34.212	27.33			14689	537	211	307	33	802	
STD	700	2.41	34.290	27.39	73.01	.578	14705						
OBS	763	2.31	34.343	27.44			14711	486	238	337	53	794	
STD	800	2.30	34.382	27.47	65.41	.647	14717						
STD	900	2.27	34.478	27.55	58.41	.709	14734						
OBS	914	2.27	34.491	27.56			14736	430	217	337	68		
STD	1000	2.21	34.535	27.60	54.17	.765	14748						
OBS	1099	2.14	34.567	27.64			14762	426	223	294	67	789	
STD	1250	2.12	34.616	27.68	47.84	.893	14787						
OBS	1280	2.12	34.624	27.68			14792	424	226	322	78	787	
STD	1500	2.04	34.668	27.72	44.58	1.008	14825						
OBS	1546	2.02	34.674	27.73			14832	430	228	315	84	787	
STD	1750	1.91	34.700	27.76	41.46	1.116	14862						
OBS	1905	1.82	34.710	27.78			14884	440	222	294	94	788	
STD	2000	1.76	34.704	27.78	40.86	1.219	14897						
STD	2250	1.59	34.685	27.77	40.99	1.321	14931						
OBS	2358	1.52	34.675	27.77			14946	456	214	312	80	795	
STD	2500	1.43	34.680	27.78	40.78	1.423	14966						
STD	2750	1.28	34.693	27.80	38.11	1.522	15002						
OBS	2818	1.24	34.697	27.81			15012	465	210	318	109	788	
STD	3000	1.14	34.697	27.81	36.88	1.616	15038						
STD	3250	1.01	34.695	27.82	35.34	1.706	15075						
OBS	3280	.99	34.694	27.82			15080	475	231	316	110	787	
STD	3500	.84	34.693	27.83	33.97	1.793	15111						
OBS	3663	.74	34.693	27.84			15135	481	221	320	125	785	
STD	3750	.71	34.693	27.84	31.51	1.874	15148						
OBS	3957	.60	34.692	27.84			15180	493	208	325	130	785	
STD	4000	.56	34.691	27.85	29.74	1.951	15185						
OBS	4207	.31	34.680	27.85			15211	493	218	320	117	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 15	370	19OCT1964	2319	6101S	9958W	4998	525	19	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
330	6	4.5	.5	285	5

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	3.31	34.093	27.16			14627	724	159	245	13		
STD	0	3.31	34.093	27.16	92.27	0.000	14627						
STD	10	3.31	34.091	27.15	92.48	.009	14629						
STD	20	3.31	34.089	27.15	92.63	.018	14630						
OBS	26	3.31	34.089	27.15			14631	714	167	248	11	805	
STD	30	3.31	34.089	27.15	92.68	.028	14632						
STD	50	3.30	34.091	27.15	92.59	.046	14635						
OBS	53	3.30	34.091	27.15			14635	715	170	253	12	809	
STD	75	3.29	34.091	27.16	92.85	.069	14638						
OBS	79	3.29	34.091	27.16			14639	711	170	259	11	807	
STD	100	3.28	34.090	27.16	92.73	.093	14642						
OBS	105	3.28	34.090	27.16			14643	711	167	241	12	808	
STD	150	3.16	34.093	27.17	91.68	.139	14645						
OBS	157	3.13	34.094	27.17			14645	697	177	259	15	809	
STD	200	2.77	34.090	27.20	88.77	.184	14636						
OBS	212	2.68	34.090	27.21			14634	690	175	278	19	808	
STD	250	2.73	34.119	27.23	86.51	.228	14643						
STD	300	2.89	34.166	27.25	84.77	.271	14659						
OBS	315	2.96	34.182	27.26			14664	596	206	302	29	802	
STD	400	2.70	34.219	27.31	79.86	.353	14667						
OBS	418	2.63	34.226	27.32			14667	570	216	311	39	799	
STD	500	2.53	34.281	27.37	73.56	.430	14677						
STD	600	2.50	34.355	27.44	68.82	.501	14693						
OBS	627	2.48	34.376	27.45			14697	472	226	322	54	794	
STD	700	2.43	34.426	27.50	63.05	.567	14707						
STD	800	2.36	34.487	27.55	58.13	.627	14721						
OBS	831	2.34	34.505	27.57			14726	424	240	352	69	790	
STD	900	2.30	34.537	27.60	54.29	.683	14736						
STD	1000	2.24	34.577	27.64	51.39	.736	14750						
OBS	1029	2.23	34.587	27.64			14755	419	219	345	75	788	
OBS	1249	2.16	34.655	27.70			14789	416	222	322	81	790	
STD	1250	2.16	34.655	27.70	45.33	.857	14789						
OBS	1493	2.03	34.698	27.75			14824	429	218	336	84	789	
STD	1500	2.02	34.699	27.75	42.08	.966	14825						
OBS	1737	1.85	34.721	27.78			14857	436	221	327	90	787	
STD	1750	1.84	34.721	27.78	39.09	1.068	14859						
STD	2000	1.71	34.723	27.79	38.82	1.165	14895						
OBS	2030	1.69	34.723	27.80			14899	443	211	307	104	791	
STD	2250	1.54	34.726	27.81	37.37	1.261	14929						
OBS	2418	1.42	34.727	27.82			14953	458	208	310	111	788	
STD	2500	1.36	34.726	27.82	36.55	1.353	14963						
STD	2750	1.18	34.721	27.83	34.81	1.442	14998						
OBS	2810	1.14	34.719	27.83			15007	471	214	323	121	789	
STD	3000	1.04	34.716	27.84	34.10	1.528	15034						
STD	3250	.92	34.713	27.84	32.84	1.612	15072						
OBS	3297	.90	34.712	27.84			15079	480	213	322	129	788	
STD	3500	.81	34.707	27.84	32.49	1.694	15110						
OBS	3688	.72	34.703	27.85			15139	489	211	328	124	786	
STD	3750	.68	34.703	27.85	30.47	1.772	15147						
STD	4000	.54	34.703	27.86	28.59	1.846	15185						
OBS	4082	.50	34.703	27.86			15198	494	214	312	131	786	
OBS	4376	.42	34.700	27.86			15246	501	214	336	130	785	
STD	4500	.40	34.699	27.86	27.20	1.986	15266						
OBS	4622	.40	34.699	27.86			15288	502	221	322	130	788	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	371	22OCT1964	137	6100S	10458W	5176	526	14	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			315	7	2.5	2.5	310	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	1.81	34.086	27.28			14562	744	196	271	20		
STD	0	1.81	34.086	27.28	80.78	0.000	14562						
STD	10	1.81	34.081	27.27	81.16	.008	14563						
STD	20	1.82	34.077	27.27	81.49	.016	14565						
STD	30	1.82	34.074	27.27	81.76	.024	14567						
STD	50	1.82	34.069	27.26	82.15	.041	14570						
OBS	52	1.82	34.069	27.26			14570	742	194	271	20	813	
STD	75	1.82	34.069	27.26	82.40	.061	14574						
STD	100	1.81	34.070	27.26	82.14	.082	14578						
OBS	104	1.81	34.070	27.26			14578	740	183	272	20	817	
STD	150	1.82	34.070	27.26	82.28	.123	14586						
OBS	156	1.82	34.071	27.26			14587	740	186	269	20	817	
STD	200	1.82	34.097	27.28	80.41	.164	14595						
OBS	208	1.81	34.102	27.29			14596	703	205	283	24	813	
STD	250	1.60	34.108	27.31	78.04	.203	14593						
OBS	260	1.55	34.110	27.31			14593	710	192	292	28	814	
STD	300	1.61	34.134	27.33	76.40	.242	14602						
OBS	312	1.65	34.143	27.33			14606	673	208	298	31	813	
OBS	362	1.87	34.188	27.35			14624	625	211	312	37	810	
STD	400	2.03	34.236	27.38	72.70	.316	14638						
OBS	414	2.09	34.255	27.39			14643	562	232	319	45	807	
STD	500	2.14	34.346	27.46	65.24	.385	14661						
STD	600	2.21	34.429	27.52	60.57	.448	14681						
OBS	619	2.22	34.442	27.53			14685	457	240	334	62	801	
STD	700	2.22	34.491	27.57	56.16	.507	14699						
STD	800	2.20	34.540	27.61	52.63	.561	14715						
OBS	827	2.19	34.551	27.62			14719	425	232	339	73	798	
STD	900	2.18	34.579	27.64	49.93	.612	14731						
STD	1000	2.15	34.614	27.67	47.68	.661	14747						
OBS	1040	2.14	34.627	27.68			14753	419	235	330	79	798	
STD	1250	2.05	34.698	27.75	41.04	.772	14785						
OBS	1290	2.03	34.708	27.76			14791	431	230	318	82		
STD	1500	1.92	34.722	27.78	39.19	.872	14821						
OBS	1528	1.90	34.722	27.78			14825	436	207	310	84	785	
STD	1750	1.73	34.729	27.80	37.27	.968	14854						
OBS	1763	1.72	34.729	27.80			14856	444	194	315	91	788	
STD	2000	1.56	34.731	27.81	36.56	1.060	14889						
OBS	2136	1.48	34.731	27.82			14908	456	216	312	97	788	
STD	2250	1.40	34.729	27.82	35.45	1.150	14923						
STD	2500	1.25	34.724	27.83	35.25	1.239	14959						
OBS	2511	1.24	34.724	27.83			14960	466	212	310	112	789	
STD	2750	1.12	34.719	27.83	34.10	1.325	14995						
OBS	2895	1.05	34.717	27.84			15017	473	216	313	112	788	
STD	3000	.99	34.716	27.84	33.46	1.410	15032						
STD	3250	.85	34.714	27.85	31.76	1.491	15069						
OBS	3286	.83	34.714	27.85			15074	480	230	308	118	790	
STD	3500	.74	34.710	27.85	31.28	1.570	15107						
OBS	3676	.67	34.707	27.85			15135	489	231	320	123	789	
STD	3750	.63	34.706	27.85	29.56	1.646	15145						
STD	4000	.52	34.703	27.86	28.33	1.718	15184						
OBS	4057	.50	34.702	27.86			15193	495	225	319	123	788	
STD	4500	.42	34.703	27.86	27.21	1.857	15267						
OBS	4519	.42	34.703	27.86			15271	502	225	318	129	786	
OBS	4965	.43	34.703	27.86			15350	504	234	320	128	788	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	372	22OCT1964	2300	6031S	10500W	5063	526	5	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		235	7	.9	-1.5	270	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.80	34.067	27.26			14561	742		276	22		
STD	0	1.80	34.067	27.26	82.15	0.000	14561						
STD	10	1.81	34.066	27.26	82.28	.008	14563						
STD	20	1.81	34.065	27.26	82.40	.016	14565						
STD	30	1.81	34.064	27.26	82.46	.025	14566						
STD	50	1.81	34.062	27.26	82.63	.041	14569						
OBS	51	1.81	34.062	27.26			14570	741		275	21	802	
STD	75	1.81	34.060	27.26	83.06	.062	14573						
STD	100	1.78	34.060	27.26	82.66	.083	14576						
OBS	101	1.78	34.060	27.26			14576	742		272	21	806	
OBS	150	1.59	34.072	27.28			14576	728		278	24	804	
STD	150	1.59	34.072	27.28	80.46	.123	14576						
STD	200	1.37	34.097	27.32	77.09	.163	14575						
OBS	201	1.37	34.098	27.32			14575	722		291	27	803	
STD	250	1.71	34.143	27.33	76.30	.201	14599						
OBS	251	1.72	34.144	27.33			14599	658		304	32	801	
OBS	300	1.98	34.215	27.37			14620	586		311	41	798	
STD	300	1.98	34.215	27.37	73.22	.239	14620						
OBS	351	1.93	34.254	27.40			14626	561		322	47	797	
STD	400	2.01	34.306	27.44	67.23	.309	14638						
OBS	402	2.01	34.308	27.44			14639	523		332	51	791	
STD	500	2.11	34.399	27.50	61.00	.373	14660						
STD	600	2.17	34.474	27.56	56.84	.432	14680						
OBS	603	2.17	34.476	27.56			14681	438		332	66	789	
STD	700	2.16	34.532	27.61	52.57	.486	14697						
STD	800	2.15	34.573	27.64	49.73	.538	14713						
OBS	806	2.15	34.575	27.64			14714	420		335	75	788	
STD	900	2.14	34.621	27.68	46.50	.586	14730						
STD	1000	2.13	34.670	27.72	43.37	.631	14747						
OBS	1019	2.10	34.606	27.67			14748	424		317	47	798	7

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	373	23OCT1964	741	6003S	10448W	4910	526	4	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	8	-2.0	-5.5	230	7					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.00	34.101	27.27			14570	707	189	288	24		
STD	0	2.00	34.101	27.27	81.01	0.000	14570						
STD	10	2.05	34.103	27.27	81.25	.008	14574						
STD	20	2.09	34.102	27.27	81.62	.016	14577						
STD	30	2.12	34.102	27.27	81.86	.024	14581						
OBS	45	2.16	34.103	27.26			14585	687	198	301	23	800	
STD	50	2.17	34.102	27.26	82.29	.041	14586						
STD	75	2.19	34.096	27.25	83.23	.062	14591						
OBS	90	2.18	34.091	27.25			14593	684	189	300	23	802	
STD	100	2.16	34.088	27.25	83.35	.082	14593						
OBS	136	2.03	34.081	27.26			14593	697	194	292	24	803	
STD	150	1.95	34.078	27.26	82.66	.124	14592						
OBS	181	1.79	34.079	27.27			14590	708	198	299	22	804	
STD	200	1.79	34.092	27.28	80.53	.165	14593						
OBS	228	1.70	34.107	27.30			14594	679	198	300	27	802	
STD	250	1.32	34.095	27.32	77.05	.204	14581						
OBS	275	.91	34.077	27.33			14566	753	195	292	24	806	
STD	300	.87	34.071	27.33	75.87	.242	14568						
OBS	321	.97	34.075	27.33			14576	756	195	292	25	807	
OBS	369	1.44	34.130	27.34			14606	671	196	305	30	803	
STD	400	1.65	34.171	27.36	74.44	.317	14620						
STD	500	2.09	34.295	27.42	68.54	.389	14658						
OBS	567	2.20	34.372	27.47			14675	478	233	347	52	791	
STD	600	2.20	34.399	27.50	62.79	.455	14681						
STD	700	2.21	34.465	27.55	58.09	.515	14698						
OBS	772	2.22	34.499	27.57			14711	431	228	355	63	788	
STD	800	2.21	34.516	27.59	54.52	.571	14715						
STD	900	2.23	34.578	27.64	50.57	.624	14733						
OBS	989	2.08	34.572	27.64			14741	426	215	350	66	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 15	374	23OCT1964	1933	5931S	10457W	4840	490	94	12

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
215	8	- .1	-6.5	230	6

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.32	34.162	27.11			14671	701		233	9		
STD	0	4.32	34.162	27.11	96.69	0.000	14671						
STD	10	4.32	34.159	27.11	96.96	.010	14672						
STD	20	4.31	34.156	27.10	97.21	.019	14674						
STD	30	4.31	34.154	27.10	97.44	.029	14675						
STD	50	4.31	34.150	27.10	97.86	.049	14678						
OBS	55	4.31	34.149	27.10			14679	699		233	10	807	
STD	75	4.32	34.147	27.10	98.54	.073	14682						
STD	100	4.32	34.146	27.10	98.61	.098	14687						
OBS	109	4.32	34.146	27.10			14688	698		233	10	808	
STD	150	4.30	34.145	27.10	98.86	.147	14694						
OBS	164	4.28	34.145	27.10			14695	698		235	9	809	
STD	200	4.18	34.140	27.11	98.49	.197	14697						
OBS	218	4.13	34.137	27.11			14698	684		242	11	808	
STD	250	4.14	34.137	27.11	98.80	.246	14703						
OBS	272	4.13	34.137	27.11			14706	686		245	11	809	
STD	300	3.94	34.131	27.12	97.67	.295	14703						
OBS	326	3.75	34.126	27.14			14699	663		268	14	807	
OBS	380	3.56	34.128	27.16			14700	654		265	16	807	
STD	400	3.64	34.152	27.17	93.97	.391	14706						
OBS	434	3.81	34.201	27.19			14720	579		295	23	801	
STD	500	3.74	34.242	27.23	88.49	.482	14728						
STD	600	3.40	34.277	27.29	83.68	.568	14731						
OBS	648	3.15	34.282	27.32			14728	512		325	39	796	
STD	700	3.02	34.309	27.35	77.59	.649	14731						
STD	800	2.79	34.364	27.42	71.67	.723	14738						
OBS	863	2.67	34.399	27.46			14744	456		350	57	790	
STD	900	2.59	34.419	27.48	65.99	.792	14747						
STD	1000	2.36	34.474	27.54	60.30	.855	14754						
OBS	1078	2.40	34.503	27.56			14769	430		354	71	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	375	24OCT1964	244	5908S	10501W	4417	490	95	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		210	6	.1	-7.1	220	6						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.20	34.165	27.12			14666	701	157	227	9		
STD	0	4.20	34.165	27.12	95.26	0.000	14666						
STD	10	4.20	34.158	27.12	95.83	.010	14667						
STD	20	4.19	34.151	27.11	96.34	.019	14669						
STD	30	4.19	34.146	27.11	96.78	.029	14670						
STD	50	4.19	34.139	27.10	97.49	.048	14673						
OBS	52	4.19	34.138	27.10			14673	701	163	226	10	807	
STD	75	4.20	34.138	27.10	98.04	.073	14677						
STD	100	4.21	34.138	27.10	98.08	.097	14682						
OBS	104	4.21	34.138	27.10			14683	701	160	227	14	808	
STD	150	4.20	34.134	27.10	98.69	.146	14690						
OBS	156	4.20	34.134	27.10			14691	700	162	225	10	808	
STD	200	4.21	34.136	27.10	99.11	.196	14698						
OBS	208	4.21	34.136	27.10			14699	701	156	228	9	810	
STD	250	4.22	34.137	27.10	99.67	.246	14707						
OBS	260	4.21	34.136	27.10			14708	702	164	226	9	809	
STD	300	3.96	34.123	27.12	98.38	.295	14703						
OBS	313	3.87	34.120	27.12			14702	676	174	248	13	808	
OBS	366	3.78	34.132	27.14			14707	650	184	253	16	806	
STD	400	3.48	34.107	27.15	95.74	.392	14699						
OBS	418	3.31	34.093	27.16			14695	689	175	254	14	809	
STD	500	3.19	34.126	27.19	91.50	.486	14703						
STD	600	3.34	34.217	27.25	87.43	.575	14727						
OBS	603	3.35	34.221	27.25			14728	555	203	295	31	797	
STD	700	3.19	34.276	27.31	81.84	.660	14738						
STD	800	2.97	34.329	27.37	76.10	.739	14745						
OBS	808	2.95	34.333	27.38			14746	482	229	328	47	793	
STD	900	2.76	34.381	27.44	70.59	.812	14754						
STD	1000	2.58	34.433	27.49	65.54	.880	14763						
OBS	1019	2.55	34.443	27.50			14765	438	238	333	62	790	
OBS	1236	2.38	34.554	27.61			14795	419	238	332	73		
STD	1250	2.37	34.559	27.61	54.69	1.031	14797						
OBS	1475	2.24	34.626	27.67			14829	415	227	331	81	785	
STD	1500	2.23	34.632	27.68	49.31	1.161	14833						
OBS	1712	2.17	34.676	27.72			14866	417	228	317	85	787	
STD	1750	2.15	34.682	27.73	45.60	1.279	14872						
OBS	1949	2.04	34.705	27.75			14900	428	220	314	88	788	
STD	2000	2.01	34.710	27.76	43.44	1.390	14907						
OBS	2185	1.87	34.722	27.78			14933	432	214	309	94	790	
STD	2250	1.82	34.725	27.79	40.90	1.496	14941						
OBS	2421	1.69	34.730	27.80			14965	444	213	308	99	793	
STD	2500	1.63	34.730	27.81	39.67	1.597	14975						
OBS	2659	1.51	34.729	27.81			14997	454	210	310	104	793	
STD	2750	1.45	34.728	27.82	37.79	1.693	15010						
OBS	2901	1.35	34.725	27.82			15031	460	208	310	110	792	
STD	3000	1.29	34.723	27.82	37.06	1.787	15045						
OBS	3145	1.22	34.721	27.83			15067	471		314	111	791	
STD	3250	1.18	34.721	27.83	35.88	1.878	15083						
OBS	3393	1.12	34.720	27.83			15106	473	203	312	115	792	
STD	3500	1.06	34.718	27.84	35.31	1.967	15121						
OBS	3641	.96	34.713	27.84			15141	480	213	318	120	791	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	376	26OCT1964	256	6002S	10956W	5057	526	9	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		290	5	3.0	1.7	290	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	1.33	34.093	27.32			14541	761	181	273	26	799	
STD	0	1.33	34.093	27.32	76.98	0.000	14541						
STD	10	1.31	34.089	27.31	77.16	.008	14541						
STD	20	1.30	34.086	27.31	77.31	.015	14542						
STD	30	1.28	34.083	27.31	77.43	.023	14543						
STD	50	1.26	34.078	27.31	77.63	.039	14545						
OBS	52	1.26	34.078	27.31			14546	760	185	277	24	790	
STD	75	1.26	34.077	27.31	77.93	.058	14549						
STD	100	1.25	34.076	27.31	77.74	.078	14553						
OBS	103	1.25	34.076	27.31			14553	754	178	276	24	806	
STD	150	1.12	34.082	27.32	76.39	.116	14555						
OBS	156	1.10	34.084	27.32			14555	748	182	273	24	805	
STD	200	1.13	34.103	27.34	75.04	.154	14564						
OBS	207	1.14	34.106	27.34			14566	725	191	267	28	807	
STD	250	1.10	34.124	27.36	73.31	.191	14571						
OBS	258	1.11	34.130	27.36			14573	697	190	295	32	803	
STD	300	1.53	34.207	27.39	70.34	.227	14600						
OBS	310	1.66	34.228	27.40			14607	599	209	308	42	799	
OBS	361	2.13	34.307	27.43			14637	526	222	324	48	797	
STD	400	2.26	34.343	27.45	66.56	.295	14650						
OBS	412	2.27	34.352	27.45			14652	491	206	326	52	795	
STD	500	2.23	34.413	27.51	60.96	.359	14666						
STD	600	2.08	34.470	27.56	56.28	.418	14676						
OBS	620	2.03	34.480	27.57			14677	453	226	336	66	790	
STD	700	2.03	34.523	27.61	52.06	.472	14691						
STD	800	2.06	34.572	27.65	48.94	.522	14709						
OBS	830	2.07	34.585	27.66			14715	424	215	331	74	789	
STD	900	2.07	34.614	27.68	46.29	.570	14727						
STD	1000	2.06	34.652	27.71	43.96	.615	14743						
OBS	1036	2.05	34.664	27.72			14749	420	209	322	79	789	
OBS	1172	2.01	34.705	27.76			14770	428	211	314	81		
STD	1250	1.98	34.715	27.77	38.98	.719	14782						
OBS	1373	1.91	34.721	27.78			14799	442	206	308	82	785	
STD	1500	1.83	34.727	27.79	37.90	.815	14817						
OBS	1673	1.72	34.732	27.80			14841	446	203	303	88	788	
STD	1750	1.66	34.732	27.81	36.23	.908	14851						
OBS	1973	1.50	34.731	27.82			14881	456	201	303	94	787	
STD	2000	1.48	34.731	27.82	35.67	.997	14885						
STD	2250	1.34	34.727	27.82	34.85	1.086	14921						
OBS	2276	1.33	34.727	27.82			14925	468	206	314	101	787	
STD	2500	1.20	34.724	27.83	34.78	1.173	14957						
OBS	2677	1.11	34.721	27.84			14983	474	200	297	106	788	
STD	2750	1.07	34.720	27.84	33.45	1.258	14993						
STD	3000	.96	34.718	27.84	32.98	1.341	15031						
OBS	3078	.93	34.717	27.84			15043	479	200	309	112	787	
STD	3250	.86	34.713	27.84	32.05	1.422	15069						
STD	3500	.77	34.708	27.85	31.89	1.502	15108						
OBS	3580	.74	34.706	27.85			15121	486	206	308	118	785	
STD	3750	.66	34.705	27.85	30.04	1.580	15146						
STD	4000	.55	34.704	27.86	28.70	1.653	15185						
OBS	4086	.52	34.704	27.86			15199	499	209	316	121	784	
STD	4500	.41	34.702	27.86	27.14	1.793	15266						
OBS	4594	.40	34.702	27.86			15283	505	203	314	126	786	
STD	5000	.38	34.702	27.87	26.97	1.928	15353						
OBS	5105	.39	34.702	27.86			15373	511	210	314	130	784	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	377	27OCT1964	1400	5839S	10851W	4898	490	88	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		290	4	5.1	3.0	290	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.43	34.066	27.21			14589	719	175	248	19		
STD	0	2.43	34.066	27.21	86.93	0.000	14589						
STD	10	2.43	34.064	27.21	87.08	.009	14590						
STD	20	2.42	34.062	27.21	87.20	.017	14591						
STD	30	2.41	34.060	27.21	87.30	.026	14593						
OBS	49	2.38	34.056	27.21			14594	719	181	263	18	807	
STD	50	2.38	34.056	27.21	87.40	.044	14594						
STD	75	2.31	34.050	27.21	87.58	.065	14595						
OBS	98	2.25	34.047	27.21			14596	732	177	257	18	809	
STD	100	2.25	34.047	27.21	87.19	.087	14597						
OBS	147	2.24	34.051	27.22			14604	719	182	264	19	810	
STD	150	2.23	34.051	27.22	86.91	.131	14604						
OBS	198	2.02	34.046	27.23			14602	728	183	261	19	810	
STD	200	2.01	34.046	27.23	85.77	.174	14602						
OBS	247	1.89	34.045	27.24			14605	729	186	264	19	810	
STD	250	1.88	34.045	27.24	85.01	.217	14605						
OBS	296	1.78	34.050	27.25			14608	732	179	275	19	810	
STD	300	1.80	34.054	27.25	83.96	.259	14610						
OBS	345	1.95	34.091	27.27			14624	689	201	284	25	809	
OBS	394	1.27	34.070	27.30			14601	751	191	278	23	811	
STD	400	1.30	34.082	27.31	78.53	.340	14604						
STD	500	1.54	34.298	27.47	63.72	.411	14634						
OBS	595	2.38	34.544	27.60			14690	490	250	319	51	796	
STD	600	2.39	34.545	27.60	53.56	.470	14691						
STD	700	2.42	34.533	27.58	55.00	.524	14708						
OBS	792	2.31	34.479	27.55			14718	434	234	329	65	793	
STD	800	2.30	34.481	27.55	58.04	.581	14719						
STD	900	2.21	34.516	27.59	54.95	.637	14731						
OBS	986	2.13	34.562	27.63			14743	425	216	329	73	790	
STD	1000	2.13	34.569	27.64	50.80	.690	14745						
OBS	1183	2.11	34.649	27.70			14776	418	228	327	77		
STD	1250	2.09	34.664	27.72	43.88	.808	14786						
OBS	1373	2.03	34.683	27.74			14804	430	217	312	80	789	
STD	1500	1.98	34.702	27.76	41.35	.915	14823						
OBS	1565	1.95	34.710	27.77			14833	438	208	307	84	792	
STD	1750	1.81	34.721	27.78	38.76	1.015	14858						
OBS	1853	1.73	34.724	27.79			14871	449	206	305	90	793	
STD	2000	1.62	34.726	27.80	37.64	1.111	14891						
OBS	2242	1.46	34.725	27.81			14925	458	211	305	99	793	
STD	2250	1.46	34.725	27.81	36.39	1.203	14926						
STD	2500	1.32	34.722	27.82	36.35	1.294	14962						
OBS	2635	1.25	34.719	27.82			14982	465	215	303	106	792	
STD	2750	1.18	34.716	27.83	35.17	1.384	14998						
STD	3000	1.05	34.710	27.83	34.68	1.471	15034						
OBS	3031	1.03	34.709	27.83			15039	475	209	307	113	793	
STD	3250	.93	34.704	27.83	33.56	1.556	15072						
OBS	3428	.85	34.701	27.84			15099	481	211	302	118	792	
STD	3500	.82	34.700	27.84	33.10	1.640	15110						
STD	3750	.70	34.697	27.84	31.22	1.720	15148						
OBS	3828	.67	34.696	27.84			15161	490	217	312	122	791	
STD	4000	.60	34.695	27.85	30.08	1.797	15187						
OBS	4228	.53	34.694	27.85			15224	498	217	315	124	790	
STD	4500	.47	34.694	27.85	28.66	1.943	15269						
OBS	4629	.46	34.695	27.86			15292	503	227	315	126	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	378	28OCT1964	1153	5822S	10844W	4624	490	88	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		310	6	6.4	4.5	300	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.01	34.065	27.16			14614	719	174	253	13		
STD	0	3.01	34.065	27.16	91.76	0.000	14614						
STD	10	2.95	34.064	27.17	91.36	.009	14613						
STD	20	2.89	34.062	27.17	90.98	.018	14612						
STD	30	2.83	34.061	27.17	90.61	.027	14611						
OBS	43	2.75	34.059	27.18			14609	726	172	256	15	808	
STD	50	2.71	34.058	27.18	89.90	.045	14609						
STD	75	2.57	34.054	27.19	89.38	.068	14607						
OBS	86	2.52	34.053	27.19			14606	730	182	254	15	809	
STD	100	2.49	34.052	27.20	88.77	.090	14607						
OBS	130	2.46	34.051	27.20			14611	729	180	250	16	810	
STD	150	2.41	34.050	27.20	88.42	.134	14612						
OBS	172	2.35	34.050	27.21			14613	728	184	258	16	810	
STD	200	2.20	34.043	27.21	87.47	.178	14611						
OBS	215	2.23	34.052	27.22			14614	731	173	260	16	811	
STD	250	3.13	34.166	27.23	86.53	.222	14661						
OBS	258	3.34	34.194	27.23			14671	578	200	293	26	801	
STD	300	3.43	34.231	27.25	85.05	.265	14683						
OBS	301	3.43	34.231	27.25			14683	547	211	297	30	800	
OBS	345	3.32	34.245	27.28			14685	541	211	299	33	799	
STD	400	3.15	34.261	27.30	80.98	.348	14687						
STD	500	2.86	34.297	27.36	75.52	.426	14691						
OBS	518	2.81	34.304	27.37			14692	502	223	318	44	797	
STD	600	2.65	34.351	27.42	70.55	.499	14699						
OBS	698	2.51	34.411	27.48			14710	454	223	328	58	796	
STD	700	2.51	34.412	27.48	64.83	.567	14710						
STD	800	2.40	34.463	27.53	60.29	.629	14723						
OBS	888	2.33	34.503	27.57			14735	431	235	329	67	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	379	28OCT1964	1837	5750S	10839W	4896	490	78	23				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		330	5	7.2	5.0	330	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.55	34.170	27.09			14680	705	184	231	9		
STD	0	4.55	34.170	27.09	98.45	0.000	14680						
STD	10	4.54	34.167	27.09	98.68	.010	14682						
STD	20	4.54	34.164	27.09	98.88	.020	14683						
STD	30	4.53	34.162	27.09	99.04	.030	14684						
STD	50	4.50	34.157	27.09	99.28	.049	14686						
OBS	52	4.50	34.157	27.09			14687	706	162	220	9	808	
STD	75	4.46	34.153	27.09	99.57	.074	14688						
STD	100	4.41	34.150	27.09	99.29	.099	14691						
OBS	102	4.41	34.150	27.09			14691	704	148	227	10	809	
STD	150	4.40	34.150	27.09	99.61	.149	14698						
OBS	153	4.40	34.150	27.09			14699	705	159	219	10	811	
STD	200	4.31	34.154	27.10	98.78	.198	14702						
OBS	203	4.29	34.153	27.10			14702	665	172	246	13	809	
STD	250	3.60	34.085	27.12	97.25	.248	14680						
OBS	253	3.56	34.080	27.12			14678	710	161	242	11	810	
STD	300	3.41	34.067	27.13	97.10	.296	14680						
OBS	304	3.42	34.069	27.13			14681	713	160	240	12	811	
OBS	354	3.63	34.129	27.15			14698	640	180	272	17	808	
STD	400	3.99	34.212	27.18	93.21	.391	14722						
OBS	405	4.03	34.221	27.19			14725	570	200	285	23	804	
STD	500	3.74	34.259	27.25	87.24	.481	14729						
STD	600	3.04	34.249	27.30	81.97	.566	14715						
OBS	605	2.99	34.247	27.31			14713	545	221	310	36	799	
STD	700	2.86	34.311	27.37	75.84	.645	14724						
STD	800	2.79	34.386	27.44	70.03	.718	14739						
OBS	809	2.79	34.393	27.44			14740	461	224	339	55	795	
STD	900	2.60	34.438	27.49	64.75	.785	14747						
STD	1000	2.41	34.481	27.54	60.22	.848	14756						
OBS	1012	2.39	34.486	27.55			14757	437	229		67	791	
OBS	1192	2.36	34.574	27.62			14787	413	224	339	73		
STD	1250	2.33	34.592	27.64	51.87	.988	14795						
OBS	1384	2.26	34.625	27.67			14815	413	227	337	78	786	
STD	1500	2.20	34.655	27.70	47.30	1.112	14832						
OBS	1677	2.11	34.693	27.74			14858	425	210	316	81	790	
STD	1750	2.07	34.703	27.75	43.05	1.225	14868						
OBS	1971	1.92	34.721	27.78			14899	438	217	322	92	791	
STD	2000	1.90	34.722	27.78	41.19	1.330	14903						
STD	2250	1.71	34.730	27.80	39.16	1.431	14937						
OBS	2370	1.62	34.730	27.81			14953	455	214	311	97	794	
STD	2500	1.55	34.729	27.81	38.67	1.528	14972						
STD	2750	1.41	34.726	27.82	37.41	1.623	15008						
OBS	2771	1.40	34.726	27.82			15011	462	212	322	103	792	
STD	3000	1.26	34.723	27.83	36.56	1.715	15044						
OBS	3173	1.15	34.721	27.83			15069	471	218	324	109	793	
STD	3250	1.11	34.719	27.83	34.94	1.805	15080						
STD	3500	.97	34.714	27.84	34.24	1.891	15117						
OBS	3573	.93	34.713	27.84			15128	480	211	308	116	792	
STD	3750	.84	34.711	27.84	32.26	1.974	15154						
OBS	3974	.74	34.709	27.85			15189	489	215	313	121	790	
STD	4000	.73	34.709	27.85	30.97	2.053	15193						
OBS	4375	.56	34.704	27.86			15251	500	214	316	126	790	
STD	4500	.52	34.704	27.86	28.77	2.203	15271						
OBS	4776	.47	34.705	27.86			15318	503	211	323	129	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 15	380	31OCT1964	1503	5801S	12005W	4479	492	80	23

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
295	6	5.0	.3	320	6

CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	2.60	34.056	27.19			14596	733	181	253	16		
STD	0	2.60	34.056	27.19	89.04	0.000	14596						
STD	10	2.60	34.052	27.19	89.32	.009	14597						
STD	20	2.60	34.049	27.18	89.57	.018	14599						
STD	30	2.59	34.047	27.18	89.76	.027	14600						
OBS	47	2.59	34.044	27.18			14603	733	178	256	15	808	
STD	50	2.59	34.044	27.18	89.98	.045	14603						
STD	75	2.59	34.044	27.18	90.34	.067	14607						
OBS	95	2.57	34.045	27.18			14610	730	175	255	15	811	
STD	100	2.55	34.045	27.18	89.79	.090	14610						
OBS	142	2.38	34.046	27.20			14609	730	183	258	16	810	
STD	150	2.36	34.047	27.20	88.25	.134	14610						
OBS	189	2.30	34.061	27.22			14613	712	187	270	19	810	
STD	200	2.27	34.067	27.23	86.19	.178	14614						
OBS	235	2.20	34.094	27.25			14617	686	188	278	23	808	
STD	250	2.23	34.111	27.26	82.81	.220	14621						
OBS	281	2.30	34.147	27.29			14630	629	204	297	30	803	
STD	300	2.33	34.167	27.30	79.71	.261	14634						
OBS	328	2.27	34.185	27.32			14636	606		297	33	801	
OBS	374	1.75	34.164	27.34			14621	635		303	35	802	
STD	400	1.66	34.174	27.36	74.30	.338	14621						
STD	500	1.67	34.252	27.42	68.27	.409	14639						
OBS	559	1.94	34.325	27.46			14661	531	222	326	53	799	
STD	600	2.03	34.366	27.48	63.65	.475	14672						
STD	700	2.22	34.459	27.54	58.60	.536	14698						
OBS	753	2.31	34.504	27.57			14712	430	234	344	67	792	
STD	800	2.30	34.532	27.59	54.26	.593	14719						
STD	900	2.29	34.581	27.63	50.94	.645	14736						
OBS	961	2.28	34.604	27.65			14746	409	234	323	74	791	
STD	1000	2.27	34.621	27.67	48.42	.695	14752						
OBS	1204	2.20	34.688	27.73			14783	414	226	321	80		
STD	1250	2.18	34.695	27.74	42.53	.809	14790						
OBS	1389	2.09	34.710	27.75			14810	426	221	311	81	789	
STD	1500	2.01	34.721	27.77	40.34	.912	14825						
OBS	1573	1.96	34.727	27.78			14835	437	214	311	84	792	
STD	1750	1.82	34.738	27.80	37.58	1.010	14858						
OBS	1855	1.73	34.742	27.81			14872	449	213	310	90	794	
STD	2000	1.62	34.745	27.82	36.23	1.102	14891						
OBS	2135	1.52	34.745	27.83			14910	462	209	310	95	794	
STD	2250	1.44	34.743	27.83	34.87	1.191	14925						
STD	2500	1.27	34.736	27.84	34.73	1.278	14960						
OBS	2517	1.26	34.735	27.84			14962	469	220	305	104	796	
STD	2750	1.13	34.729	27.84	33.49	1.363	14996						
OBS	2900	1.05	34.726	27.84			15018	479	211	304	110	794	
STD	3000	1.00	34.724	27.84	33.02	1.446	15032						
STD	3250	.87	34.719	27.85	31.70	1.527	15069						
OBS	3287	.85	34.718	27.85			15075	481	222	311	116	793	
STD	3500	.76	34.716	27.85	31.14	1.606	15108						
OBS	3677	.68	34.715	27.86			15135	491	222	314	121	794	
STD	3750	.63	34.715	27.86	28.92	1.681	15145						
STD	4000	.49	34.713	27.87	27.10	1.751	15182						
OBS	4065	.46	34.713	27.87			15193	497	213	318	124	792	
OBS	4456	.45	34.712	27.87			15261	503	211	318	127	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	381	1 NOV 1964	2007	5658S	12005W	4454	492	60	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			10	6	6.0	.2	340	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	± ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	4.25	34.138	27.10			14668	709	155	219	10	809	
STD	0	4.25	34.138	27.10	97.79	0.000	14668						
STD	10	4.24	34.134	27.09	98.06	.010	14669						
STD	20	4.23	34.130	27.09	98.30	.020	14670						
STD	30	4.22	34.127	27.09	98.50	.029	14671						
OBS	44	4.21	34.124	27.09			14673	706	158	222	10	812	
STD	50	4.21	34.124	27.09	98.78	.049	14674						
STD	75	4.21	34.124	27.09	99.26	.074	14678						
OBS	88	4.21	34.124	27.09			14680	706	156	216	10	813	
STD	100	4.21	34.123	27.09	99.21	.099	14682						
OBS	132	4.14	34.118	27.09			14684	705	163	222	9	811	
STD	150	4.01	34.114	27.10	98.26	.148	14681						
OBS	175	3.81	34.108	27.12			14677	700	167	227	10	815	
STD	200	3.67	34.101	27.13	96.30	.197	14675						
OBS	220	3.59	34.097	27.13			14675	688	165	235	12	810	
STD	250	3.53	34.104	27.14	95.13	.245	14677						
OBS	264	3.50	34.106	27.15			14678	670	168	245	14	810	
STD	300	3.22	34.086	27.16	93.80	.292	14671						
OBS	309	3.17	34.085	27.16			14671	671	173	252	15	810	
OBS	354	3.55	34.168	27.19			14696	595	195	273	22	806	
STD	400	3.57	34.207	27.22	89.20	.383	14704						
STD	500	3.28	34.251	27.28	83.10	.469	14709						
OBS	535	3.08	34.254	27.30			14706	526	217	299	37	800	
STD	600	3.01	34.301	27.35	77.80	.550	14714						
STD	700	2.93	34.375	27.41	71.81	.625	14728						
OBS	725	2.91	34.393	27.43			14732	452	231	314	55	797	
STD	800	2.79	34.433	27.47	66.52	.694	14739						
STD	900	2.63	34.479	27.52	61.95	.758	14749						
OBS	925	2.59	34.490	27.54			14752	418	225	326	67	796	
STD	1000	2.52	34.528	27.57	57.86	.818	14761						
OBS	1127	2.43	34.583	27.62			14779	402	232	319	79	793	
STD	1250	2.37	34.611	27.65	50.81	.954	14797						
OBS	1326	2.33	34.624	27.67			14808	402	221	329	83	792	
STD	1500	2.23	34.664	27.71	47.03	1.076	14833						
OBS	1525	2.22	34.669	27.71			14837	411	224	312	87	795	
STD	1750	2.09	34.703	27.75	43.36	1.189	14869						
OBS	1824	2.05	34.711	27.76			14880	429	210	300	91	794	
STD	2000	1.93	34.726	27.78	41.30	1.295	14904						
OBS	2123	1.83	34.732	27.79			14921	441	205	289	95	793	
STD	2250	1.71	34.734	27.80	38.85	1.395	14937						
OBS	2423	1.54	34.732	27.81			14959	451	210	296	104	792	
STD	2500	1.48	34.730	27.82	37.76	1.491	14969						
OBS	2723	1.33	34.725	27.82			15000	460	213	298	111	792	
STD	2750	1.31	34.724	27.82	36.27	1.583	15004						
STD	3000	1.18	34.720	27.83	35.69	1.673	15040						
OBS	3123	1.11	34.718	27.83			15059	468	212	301	119	795	
STD	3250	1.02	34.716	27.84	34.09	1.761	15076						
STD	3500	.87	34.711	27.84	33.10	1.845	15112						
OBS	3523	.86	34.711	27.84			15116	478	218	300	127	793	
STD	3750	.79	34.709	27.85	31.52	1.925	15152						
OBS	3923	.75	34.709	27.85			15181	487	208	304	131	791	
STD	4000	.74	34.709	27.85	31.09	2.004	15193						
OBS	4322	.70	34.709	27.85			15248	487	246	304	133	791	6

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	382	3NOV1964	147	5602S	11957W	3157	491	69	20				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		300	4	6.4	2.1	300	5						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ Δ D DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.46	34.156	27.09			14677	700	165	235	10	796	
STD	0	4.46	34.156	27.09	98.57	0.000	14677						
STD	10	4.45	34.154	27.09	98.70	.010	14678						
STD	20	4.44	34.151	27.09	98.89	.020	14679						
STD	30	4.43	34.147	27.08	99.14	.030	14680						
OBS	46	4.41	34.139	27.08			14682	705	162	230	9	808	
STD	50	4.37	34.136	27.08	99.55	.050	14681						
STD	75	4.13	34.118	27.09	98.87	.074	14674						
OBS	92	3.94	34.105	27.10			14669	706	163	238	9	809	
STD	100	3.87	34.100	27.11	97.53	.099	14667						
OBS	139	3.59	34.082	27.12			14661	706	173	244	9	809	
STD	150	3.55	34.080	27.12	96.25	.147	14661						
OBS	185	3.46	34.079	27.13			14663	700		242	10	811	
STD	200	3.42	34.077	27.13	95.63	.195	14664						
OBS	231	3.33	34.074	27.14			14665	696	173	258	11	810	
STD	250	3.24	34.072	27.15	94.68	.243	14664						
OBS	278	3.13	34.072	27.16			14664	686	173	261	13	809	
STD	300	3.12	34.075	27.16	93.75	.290	14667						
OBS	324	3.12	34.082	27.16			14671	668	186	269	15	808	
OBS	371	3.02	34.117	27.20			14675	629	191	283	19	806	
STD	400	3.00	34.139	27.22	88.65	.381	14679						
STD	500	2.95	34.213	27.28	82.62	.467	14694						
OBS	559	2.94	34.256	27.32			14704	527	221	316	36	800	
STD	600	2.88	34.285	27.35	77.72	.547	14708						
STD	700	2.73	34.354	27.42	71.39	.622	14719						
OBS	753	2.65	34.389	27.45			14725	452	233	330	53	796	
STD	800	2.61	34.420	27.48	65.60	.690	14731						
STD	900	2.54	34.481	27.53	60.87	.753	14745						
OBS	957	2.51	34.513	27.56			14754	414	236	339	67	794	
STD	1000	2.49	34.534	27.58	57.14	.812	14760						
OBS	1171	2.42	34.598	27.64			14786	400	222	340	73		
STD	1250	2.38	34.615	27.65	50.64	.947	14798						
OBS	1358	2.32	34.635	27.68			14813	405	228	339	75	791	
STD	1500	2.24	34.667	27.71	46.80	1.069	14834						
OBS	1546	2.21	34.677	27.72			14840	413	221	326	78	793	
OBS	1734	2.11	34.705	27.75			14868	421	219	320	80	794	
STD	1750	2.10	34.707	27.75	43.15	1.181	14870						
STD	2000	1.91	34.725	27.78	41.19	1.287	14904						
OBS	2018	1.90	34.726	27.78			14906	440	209	310	86	795	
STD	2250	1.74	34.736	27.80	39.08	1.387	14938						
OBS	2304	1.70	34.737	27.81			14946	447	208	310	88	795	
STD	2500	1.52	34.730	27.81	38.30	1.484	14970						
OBS	2592	1.44	34.726	27.82			14983	452	214	320	99	795	
STD	2750	1.35	34.726	27.82	36.64	1.577	15005						
OBS	2882	1.31	34.730	27.83			15026	457	221	320	103	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	383	9NOV1964	726	5559S	13427W	3294	493	54	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			345	4	5.8	4.5	330	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	V _r m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.97	34.077	27.17			14612	711	148	261	17		
STD	0	2.97	34.077	27.17	90.51	0.000	14612						
STD	10	2.95	34.072	27.17	90.78	.009	14613						
STD	20	2.93	34.068	27.17	90.91	.018	14614						
STD	30	2.90	34.065	27.17	90.90	.027	14614						
OBS	42	2.86	34.064	27.17			14614	708	178	263	19	807	
STD	50	2.82	34.065	27.18	90.33	.045	14614						
STD	75	2.70	34.071	27.19	89.21	.068	14613						
OBS	87	2.64	34.075	27.20			14612	694	188	272	20	807	
STD	100	2.58	34.076	27.21	87.62	.090	14611						
OBS	131	2.46	34.079	27.22			14611	691	191	276	23	808	
STD	150	2.43	34.081	27.22	86.26	.133	14613						
OBS	177	2.42	34.086	27.23			14617	682	192	282	23	808	
STD	200	2.42	34.092	27.23	85.61	.176	14621						
OBS	225	2.42	34.103	27.24			14625	665	199	290	27	807	
STD	250	2.38	34.124	27.26	83.05	.219	14628						
OBS	273	2.34	34.148	27.28			14630	615	207	295	30	803	
STD	300	2.35	34.177	27.31	79.11	.259	14635						
OBS	321	2.34	34.197	27.32			14638	580	215	311	37	801	
OBS	369	2.17	34.219	27.35			14639	567	222	313	42	801	
STD	400	2.12	34.240	27.38	73.13	.335	14642						
STD	500	2.06	34.319	27.44	66.52	.405	14657						
OBS	565	2.10	34.378	27.49			14670	480	233	334	60	797	
STD	600	2.11	34.411	27.51	61.07	.469	14677						
STD	700	2.16	34.498	27.58	55.13	.527	14696						
OBS	770	2.20	34.553	27.62			14710	415	233	338	74	794	
STD	800	2.21	34.569	27.63	50.58	.580	14716						
STD	900	2.24	34.616	27.67	47.86	.629	14734						
OBS	984	2.25	34.645	27.69			14749	409	221	320	81	794	
STD	1000	2.25	34.651	27.69	45.87	.676	14751						
STD	1250	2.11	34.724	27.76	39.71	.783	14788						
OBS	1298	2.07	34.732	27.77			14794	423	208	316	84	793	
OBS	1494	1.92	34.730	27.78			14820	442	205	303	89	795	
STD	1500	1.91	34.730	27.78	38.56	.881	14820						
OBS	1689	1.75	34.739	27.80			14845	450	202	302	92	796	
STD	1750	1.69	34.739	27.81	36.06	.974	14852						
OBS	1885	1.57	34.738	27.82			14870	464	207	303	99	796	
STD	2000	1.51	34.738	27.82	35.37	1.063	14886						
OBS	2081	1.46	34.738	27.82			14898	466	200	306	100	795	
STD	2250	1.31	34.732	27.83	34.07	1.150	14919						
OBS	2277	1.28	34.731	27.83			14923	467	194	312	107	796	
OBS	2475	1.13	34.729	27.84			14949	473	209	306	110	796	
STD	2500	1.12	34.728	27.84	33.38	1.234	14953						
OBS	2671	1.05	34.722	27.84			14979		196	313	113	795	
STD	2750	1.00	34.721	27.84	32.50	1.317	14990						
OBS	2869	.93	34.719	27.85			15007	479	212	307	116	795	
STD	3000	.87	34.716	27.85	31.89	1.397	15027						
OBS	3067	.85	34.715	27.85			15038	481	205	314	121	794	
STD	3250	.84	34.715	27.85	31.56	1.476	15068						
OBS	3266	.84	34.715	27.85			15071	481	205	318	122	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	384	10NOV1964	615	5704S	13445W	3418	493	74	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			220	6	2.3	-.5	230	6					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.99	34.066	27.16			14613	724	175	258	15		
STD	0	2.99	34.066	27.16	91.52	0.000	14613						
STD	10	2.98	34.060	27.16	91.92	.009	14614						
STD	20	2.99	34.055	27.16	92.35	.018	14616						
STD	30	2.98	34.052	27.15	92.61	.028	14617						
OBS	50	2.98	34.050	27.15			14620	722	167	262	14	808	
STD	50	2.98	34.050	27.15	92.82	.046	14620						
STD	75	3.04	34.060	27.15	93.00	.069	14627						
OBS	100	3.06	34.069	27.16			14632	695	178	260	16	809	
STD	100	3.06	34.069	27.16	92.32	.093	14632						
OBS	150	2.69	34.051	27.18			14624	719	174	244	16	810	
STD	150	2.69	34.051	27.18	90.70	.138	14624						
OBS	200	2.48	34.055	27.20			14623	709	183	282	19	809	
STD	200	2.48	34.055	27.20	88.87	.183	14623						
OBS	250	2.76	34.127	27.23			14644	634	187	293	24	807	
STD	250	2.76	34.127	27.23	86.16	.227	14644						
OBS	300	2.78	34.161	27.26			14654	608	187	297	28	802	
STD	300	2.78	34.161	27.26	84.13	.270	14654						
OBS	351	2.58	34.182	27.29			14654	590	205	291	31	801	
STD	400	2.72	34.250	27.33	77.64	.350	14668						
OBS	401	2.72	34.252	27.34			14669	533	211	313	40	798	
STD	500	2.78	34.357	27.41	70.24	.424	14689						
OBS	598	2.69	34.432	27.48			14702	435	227	346	61	793	
STD	600	2.69	34.433	27.48	64.76	.492	14702						
STD	700	2.56	34.493	27.54	59.25	.554	14714						
OBS	796	2.42	34.540	27.59			14724	409	224	349	71	792	
STD	800	2.42	34.542	27.59	54.62	.611	14725						
STD	900	2.36	34.590	27.64	50.92	.664	14739						
OBS	996	2.32	34.632	27.67			14754	404	211	316	78	779	
STD	1000	2.32	34.634	27.67	47.93	.713	14754						
OBS	1147	2.25	34.686	27.72			14776	411	209	329	81		
STD	1250	2.20	34.697	27.73	42.72	.826	14791						
OBS	1340	2.15	34.700	27.74			14804	422	208	310	83	787	
STD	1500	2.01	34.722	27.77	40.26	.930	14825						
OBS	1534	1.98	34.726	27.78			14829	433	197	312	86	794	
OBS	1727	1.85	34.735	27.79			14856	442	195	308	90	794	
STD	1750	1.83	34.736	27.79	37.91	1.028	14858						
OBS	1922	1.69	34.739	27.81			14881	449	203	300	94	794	
STD	2000	1.64	34.739	27.81	36.87	1.121	14892						
OBS	2116	1.55	34.737	27.82			14907	457	203	311	98	795	
STD	2250	1.42	34.734	27.82	35.26	1.211	14924						
OBS	2311	1.36	34.733	27.83			14932	460	205	311	104	795	
STD	2500	1.23	34.728	27.83	34.80	1.299	14958						
OBS	2506	1.23	34.728	27.83			14959	466	201	324	108	795	
OBS	2703	1.15	34.724	27.83			14989	468	206	308	110	795	
STD	2750	1.12	34.723	27.84	33.87	1.385	14995						
OBS	2899	1.01	34.718	27.84			15016	478	213	304	116	795	
STD	3000	.94	34.716	27.84	32.82	1.468	15030						
OBS	3098	.87	34.714	27.85			15044	482	199	313	120	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	385	11NOV1964	909	5823S	13438W	3413	493	84	23				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			330	3	4.8	2.8	290	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	.96	34.127	27.37			14524	770	192		41	806	
STD	0	.96	34.127	27.37	72.08	0.000	14524						
STD	10	.95	34.118	27.36	72.71	.007	14526						
STD	20	.95	34.111	27.36	73.18	.015	14527						
STD	30	.94	34.106	27.35	73.51	.022	14528						
STD	50	.93	34.102	27.35	73.76	.037	14531						
OBS	51	.93	34.102	27.35			14531	772	199	287	41	807	
STD	75	.73	34.108	27.37	72.34	.055	14526						
STD	100	.53	34.125	27.39	69.52	.073	14521						
OBS	103	.50	34.128	27.40			14520	753		292		807	
STD	150	.42	34.194	27.45	63.65	.106	14525						
OBS	154	.43	34.201	27.46			14526	692	205	310	52	806	
STD	200	.82	34.303	27.52	57.80	.136	14553						
OBS	206	.88	34.316	27.53			14557	592	215	318	60	802	
STD	250	1.03	34.363	27.55	54.70	.164	14571						
OBS	258	1.04	34.370	27.56			14573	558	214	320	64	800	
STD	300	1.16	34.426	27.59	51.07	.191	14586						
OBS	309	1.18	34.437	27.60			14589	525	227	322	68	799	
OBS	360	1.22	34.475	27.63			14599	506	214	332	73	799	
STD	400	1.66	34.543	27.65	46.57	.240	14626						
OBS	411	1.80	34.563	27.66			14634	440	232	332	76	796	
STD	500	1.93	34.644	27.71	40.94	.283	14656						
STD	600	2.07	34.683	27.73	40.29	.324	14679						
OBS	614	2.09	34.684	27.73			14682	413	215	318	83	795	
STD	700	2.06	34.702	27.75	38.97	.364	14695						
STD	800	1.98	34.711	27.76	37.80	.402	14708						
OBS	807	1.97	34.711	27.76			14709	424	214	314	85	798	
STD	900	1.90	34.719	27.78	36.93	.439	14721						
STD	1000	1.83	34.730	27.79	35.88	.476	14734						
OBS	1022	1.81	34.733	27.79			14737	438	209	311	91	796	
OBS	1121	1.73	34.757	27.82			14750	441	212	308	91	797	
STD	1250	1.64	34.751	27.82	32.79	.562	14767						
OBS	1318	1.59	34.742	27.82			14776	449	209	309	96	797	
STD	1500	1.44	34.735	27.82	33.12	.644	14800						
OBS	1516	1.43	34.735	27.82			14802	457	211	310	100	797	
OBS	1706	1.28	34.729	27.83			14827	463	204	311	105	797	
STD	1750	1.25	34.728	27.83	32.00	.725	14833						
OBS	1913	1.16	34.725	27.83			14856	470	205	309	108	796	
STD	2000	1.13	34.723	27.84	32.17	.806	14869						
OBS	2112	1.09	34.721	27.84			14886	467	209	308	111	796	
STD	2250	.99	34.719	27.84	31.31	.885	14905						
OBS	2310	.95	34.718	27.84			14914	474	214	318	115	796	
STD	2500	.86	34.714	27.85	31.27	.963	14941						
OBS	2509	.86	34.714	27.85			14943	473	215	312	119	796	
STD	2750	.74	34.711	27.85	29.94	1.040	14978						
OBS	2806	.72	34.710	27.85			14987	482	207	318	120	796	
STD	3000	.67	34.707	27.85	29.88	1.114	15018						
OBS	3106	.65	34.706	27.85			15035	487	207	318	123	795	
STD	3250	.63	34.706	27.85	29.40	1.189	15059						
OBS	3406	.63	34.708	27.86			15086	487	198	313	125	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	386	12NOV1964	2020	5734S	13849W	2928	493	78	20				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		240	1	7.5	5.3	330	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.24	33.998	27.17			14579	767	182	260	18	811	
STD	0	2.24	33.998	27.17	90.60	0.000	14579						
STD	10	2.10	33.992	27.18	90.03	.009	14575						
STD	20	1.98	33.986	27.18	89.52	.018	14571						
STD	30	1.87	33.983	27.19	89.06	.027	14568						
OBS	50	1.72	33.979	27.20			14564	764	181	260	17	811	
STD	50	1.72	33.979	27.20	88.28	.045	14564						
STD	75	1.68	33.983	27.20	87.97	.067	14566						
OBS	99	1.67	33.992	27.21			14570	761	187	269	20	816	
STD	100	1.67	33.993	27.21	86.93	.089	14570						
OBS	149	1.46	34.024	27.25			14569	746	190	274	25	812	
STD	150	1.46	34.025	27.25	83.10	.131	14569						
OBS	198	1.41	34.062	27.29			14576	723	198	286	29	810	
STD	200	1.43	34.065	27.29	79.90	.172	14577						
OBS	248	1.87	34.150	27.32			14605	630	215	308	34	803	
STD	250	1.88	34.153	27.32	76.86	.211	14606						
OBS	298	1.94	34.199	27.36			14617	591	208	308	39	804	
STD	300	1.94	34.200	27.36	73.99	.249	14617						
OBS	347	1.87	34.228	27.39			14622	575	218	326	44	801	
OBS	396	1.95	34.282	27.42			14635	535	217	321	49	799	
STD	400	1.96	34.287	27.43	68.30	.320	14636						
STD	500	2.21	34.393	27.49	62.26	.385	14664						
OBS	597	2.39	34.479	27.54			14689	424	232	335	64	796	
STD	600	2.39	34.481	27.55	58.36	.445	14690						
STD	700	2.33	34.535	27.59	53.92	.502	14704						
OBS	791	2.22	34.574	27.63			14715	406	220	334	74	796	
STD	800	2.22	34.579	27.64	49.89	.554	14716						
STD	900	2.21	34.635	27.68	46.14	.602	14733						
OBS	991	2.21	34.678	27.72			14749	408	220	318	78	792	
STD	1000	2.21	34.680	27.72	43.34	.646	14750						
OBS	1176	2.12	34.708	27.75			14776	422	209	317	82	795	
STD	1250	2.07	34.718	27.76	39.73	.750	14786						
OBS	1375	1.97	34.731	27.78			14802	438	211	307	84	795	
STD	1500	1.87	34.739	27.79	37.41	.847	14819						
OBS	1573	1.81	34.742	27.80			14828	446	204	238	89	796	5
STD	1750	1.65	34.742	27.81	35.37	.938	14851						
OBS	1772	1.63	34.742	27.82			14854	456	203	295	101	796	
STD	2000	1.43	34.737	27.83	34.60	1.025	14883						
OBS	2069	1.37	34.735	27.83			14892	468	207	309	110	795	
STD	2250	1.17	34.729	27.84	32.63	1.109	14913						
OBS	2367	1.06	34.726	27.84			14928	474	211	311	120	794	
STD	2500	1.02	34.724	27.84	32.45	1.190	14949						
OBS	2662	1.02	34.724	27.84			14976	475	212	308	122	794	
OBS	2710	1.02	34.724	27.84			14984	474	214	308	122	793	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							.10°	1°					
EL 15	387	13NOV1964	1434	5654S	13937W	2769	493	69	20				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		315	2	5.6	4.7	350	3						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.94	34.047	27.15			14611	748	188		21	801	
STD	0	2.94	34.047	27.15	92.53	0.000	14611						
STD	10	2.58	34.038	27.18	90.32	.009	14597						
STD	20	2.27	34.029	27.20	88.51	.018	14585						
STD	30	2.01	34.023	27.21	87.04	.027	14575						
OBS	50	1.63	34.014	27.23			14561	760	187		23	802	
STD	50	1.63	34.014	27.23	85.00	.044	14561						
STD	75	1.49	34.011	27.24	84.56	.065	14559						
OBS	100	1.51	34.017	27.24			14564	760	188		25	802	
STD	100	1.51	34.017	27.24	83.97	.086	14564						
OBS	150	1.47	34.063	27.28			14571	728	200		27	808	
STD	150	1.47	34.063	27.28	80.28	.127	14571						
OBS	200	1.67	34.130	27.32			14588	671	208			803	
STD	200	1.67	34.130	27.32	76.79	.167	14588						
OBS	250	1.36	34.130	27.34			14583	678	211		37	798	
STD	250	1.36	34.130	27.34	74.68	.205	14583						
OBS	300	1.07	34.149	27.38			14578	671	184		40	802	
STD	300	1.07	34.149	27.38	71.35	.241	14578						
OBS	350	1.64	34.244	27.42			14613	569	222		48	800	
OBS	400	1.37	34.251	27.44			14609	593	234		50	791	
STD	400	1.37	34.251	27.44	66.27	.310	14609						
STD	500	1.67	34.363	27.51	59.91	.373	14641						
OBS	598	2.25	34.502	27.57			14684	424	226		68	791	
STD	600	2.25	34.504	27.58	55.37	.431	14684						
STD	700	2.32	34.581	27.63	50.45	.483	14705						
OBS	797	2.27	34.631	27.68			14719	408	223		75	790	
STD	800	2.27	34.632	27.68	46.46	.532	14719						
STD	900	2.23	34.661	27.70	44.36	.577	14734						
OBS	997	2.17	34.679	27.72			14748	416	217		80	793	
STD	1000	2.17	34.680	27.72	42.99	.621	14748						
OBS	1141	2.09	34.711	27.75			14769	429	206		87	797	
STD	1250	2.02	34.724	27.77	38.77	.723	14784						
OBS	1343	1.96	34.731	27.78			14797	444	216		93	796	
STD	1500	1.85	34.740	27.80	37.18	.818	14818						
OBS	1544	1.82	34.741	27.80			14824	448	216		94	797	
STD	1750	1.65	34.742	27.81	35.43	.909	14851						
OBS	1847	1.57	34.740	27.82			14863	463	211		102	796	
STD	2000	1.44	34.737	27.82	34.75	.997	14883						
OBS	2149	1.33	34.733	27.83			14903	468	211		112	796	
STD	2250	1.28	34.731	27.83	33.78	1.082	14918						
OBS	2451	1.18	34.727	27.84			14948	472	209		119		
STD	2500	1.15	34.725	27.84	34.03	1.167	14954						
STD	2750	1.02	34.721	27.84	32.73	1.251	14991						
OBS	2755	1.02	34.721	27.84			14992	478	215		123		
OBS	2863	* .96	34.723	27.85			15008	474	217		124	795	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	388	14NOV1964	1148	5551S	13946W	2793	493	59	19				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		10	5	6.6	5.9	315	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ε ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	4.30	34.066	27.03			14669	718	165	237	11		
STD	0	4.30	34.066	27.03	103.71	0.000	14669						
STD	10	4.14	34.067	27.05	102.17	.010	14664						
STD	20	4.01	34.067	27.07	100.88	.020	14660						
STD	30	3.90	34.068	27.08	99.82	.030	14657						
OBS	48	3.76	34.069	27.09			14654	723	159	238	12	808	
STD	50	3.76	34.069	27.09	98.44	.050	14654						
STD	75	3.73	34.071	27.10	98.46	.075	14657						
OBS	96	3.75	34.073	27.10			14661	715	167	238	11	810	
STD	100	3.74	34.074	27.10	98.29	.100	14661						
OBS	144	3.58	34.077	27.12			14662	685	169	248	12	809	
STD	150	3.51	34.072	27.12	96.57	.148	14660						
OBS	192	3.16	34.059	27.14			14651	690	175	260	14	809	
STD	200	3.17	34.072	27.15	93.64	.196	14653						
OBS	220	3.26	34.108	27.17			14661	661	183	262	17	808	
OBS	240	3.41	34.124	27.17			14671	631	191	271	16	807	
STD	250	3.30	34.116	27.17	92.01	.242	14667						
OBS	289	2.67	34.069	27.19			14646	667	183	273	19	808	
STD	300	2.59	34.068	27.20	89.41	.288	14644						
OBS	344	2.42	34.084	27.23			14644	661	189	280	21	808	
STD	400	2.50	34.134	27.26	84.41	.374	14657						
OBS	479	2.76	34.224	27.31			14683	560	213	308	35	801	
STD	500	2.77	34.244	27.33	78.53	.456	14687						
STD	600	2.74	34.335	27.40	72.58	.531	14703						
OBS	635	2.70	34.364	27.43			14707	462	229	330	50	797	
STD	700	2.66	34.408	27.47	66.62	.601	14717						
STD	800	2.60	34.470	27.52	61.87	.665	14732						
STD	900	2.54	34.522	27.57	57.89	.725	14746						
STD	1000	2.48	34.565	27.61	54.68	.781	14760						
OBS	1158	2.37	34.615	27.66			14782	405	225	320	77	794	
STD	1250	2.32	34.643	27.68	47.98	.910	14796						
OBS	1349	2.27	34.669	27.71			14810	413	223	316	79	795	
STD	1500	2.19	34.705	27.74	43.43	1.024	14832						
OBS	1640	2.10	34.729	27.77			14852	429	214	299	83	795	
STD	1750	2.03	34.735	27.78	40.24	1.129	14867						
OBS	1933	1.88	34.735	27.79			14891	448	204	305	90	795	
STD	2000	1.80	34.735	27.80	39.15	1.228	14899						
OBS	2227	1.54	34.733	27.81			14926	458	215	304	100	795	
STD	2250	1.52	34.733	27.82	36.56	1.323	14928						
STD	2500	1.29	34.728	27.83	35.53	1.413	14960						
OBS	2524	1.27	34.727	27.83			14964	467		293	109	795	
STD	2750	1.17	34.719	27.83	34.71	1.500	14997						
OBS	2822	1.14	34.719	27.83			15009	470	215	310	114	795	
OBS	2864	*1.12	34.721	27.83			15015	470	211	306	116	794	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	389	16NOV1964	832	5606S	14456W	2639	494	64	18				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			230	4	2.4	-0.8	260	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	.79	34.135	27.39			14517	791	186	280	45	798	
STD	0	.79	34.135	27.39	70.47	0.000	14517						
STD	10	.78	34.130	27.38	70.75	.007	14518						
STD	20	.76	34.126	27.38	70.94	.014	14519						
STD	30	.74	34.123	27.38	71.02	.021	14519						
OBS	46	.69	34.120	27.38			14520	785	191	288	43	802	
STD	50	.68	34.120	27.38	70.86	.035	14520						
STD	75	.58	34.122	27.39	70.33	.053	14519						
OBS	91	.49	34.125	27.39			14518	783	199	298	45	803	
STD	100	.42	34.125	27.40	68.89	.070	14516						
OBS	136	.10	34.128	27.42			14507	782	204	289	45	806	
STD	150	-.02	34.130	27.43	66.15	.104	14504						
OBS	181	-.20	34.141	27.44			14501	780	201	299	48	807	
STD	200	-.22	34.155	27.46	63.10	.137	14504						
OBS	227	-.17	34.192	27.48			14511	727	203	307	52	803	
STD	250	-.17	34.255	27.53	55.68	.166	14515						
OBS	273	.04	34.325	27.58			14530	570	228	325	60	799	
STD	300	1.07	34.396	27.58	52.67	.193	14581						
OBS	319	1.79	34.437	27.56			14617	465	229	344	65	791	
OBS	366	2.00	34.487	27.58			14635	431	229	343	70	789	
STD	400	2.08	34.518	27.60	51.96	.246	14644						
STD	500	2.21	34.593	27.65	47.30	.295	14667						
OBS	552	2.20	34.622	27.67			14676	402	222	331	76	790	
STD	600	2.20	34.645	27.69	44.29	.341	14684						
STD	700	2.16	34.682	27.73	41.37	.384	14699						
OBS	740	2.13	34.692	27.74			14704	412	217	322	74	791	
STD	800	2.09	34.702	27.75	39.50	.424	14712						
STD	900	2.02	34.713	27.76	38.43	.463	14726						
OBS	935	1.99	34.715	27.77			14730	426	204	311	85	791	
STD	1000	1.96	34.722	27.77	37.79	.501	14740						
OBS	1115	1.90	34.731	27.79			14756	441	207	316	88	794	
STD	1250	1.79	34.737	27.80	35.45	.593	14774						
OBS	1287	1.76	34.738	27.80			14779	445	198	307	91	794	
OBS	1457	1.58	34.739	27.82			14799	454	202	304	98	795	
STD	1500	1.54	34.738	27.82	33.96	.680	14804						
OBS	1645	1.42	34.733	27.82			14823	460	215	303	102	795	
STD	1750	1.35	34.730	27.83	32.94	.763	14837						
OBS	1919	1.24	34.726	27.83			14861	464	200	311	108	796	
STD	2000	1.17	34.724	27.83	32.60	.845	14871						
OBS	2203	.98	34.719	27.84			14897	473	206	311	115	796	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	390	17NOV1964	959	55125	14501w	3115	494	55	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			30	5	5.6	.7	50	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.70	34.043	27.17			14600	760	187	260	22		
STD	0	2.70	34.043	27.17	90.83	0.000	14600						
STD	10	2.50	34.035	27.18	89.85	.009	14593						
STD	20	2.32	34.028	27.19	88.99	.018	14587						
STD	30	2.17	34.023	27.20	88.21	.027	14582						
OBS	44	2.00	34.019	27.21			14576	758	185	253	20	803	
STD	50	1.95	34.019	27.21	86.92	.044	14575						
STD	75	1.83	34.024	27.23	85.92	.066	14574						
OBS	89	1.80	34.029	27.23			14575	753	195	267	23	803	
STD	100	1.78	34.031	27.23	84.87	.087	14576						
OBS	134	1.74	34.039	27.24			14580	751	195	268	23	807	
STD	150	1.69	34.045	27.25	83.18	.129	14580						
OBS	179	1.60	34.063	27.27			14581	724	197	279	27	803	
STD	200	1.58	34.085	27.29	79.52	.170	14584						
OBS	224	1.59	34.112	27.31			14589	686	208	282	30	802	
STD	250	1.66	34.135	27.33	76.48	.209	14596						
OBS	269	1.70	34.149	27.34			14601	657	206	300	34	801	
STD	300	1.64	34.161	27.35	74.63	.247	14604						
OBS	313	1.62	34.167	27.36			14605	639	216	300	34	799	
OBS	358	1.73	34.216	27.39			14618	598	219	304	42	799	
STD	400	1.91	34.269	27.42	69.21	.319	14634						
STD	500	2.31	34.386	27.48	63.74	.385	14669						
OBS	541	2.46	34.429	27.50			14683	442	229	323	59	790	
STD	600	2.48	34.463	27.53	60.48	.447	14693						
STD	700	2.41	34.510	27.57	56.54	.506	14707						
OBS	726	2.37	34.520	27.58			14710	412	232	319	67	789	
STD	800	2.34	34.573	27.62	51.56	.560	14721						
STD	900	2.30	34.633	27.67	47.22	.609	14737						
OBS	915	2.30	34.641	27.68			14740	407	220	322	71	789	
STD	1000	2.29	34.655	27.69	46.07	.656	14753						
OBS	1027	2.29	34.658	27.70			14758	411	208	306	79	792	
OBS	1197	2.18	34.696	27.74			14782	420	205	302	78	794	
STD	1250	2.14	34.704	27.74	41.58	.765	14789						
OBS	1368	2.07	34.718	27.76			14805	433	202	304	82	793	
STD	1500	2.00	34.733	27.78	39.35	.867	14824						
OBS	1539	1.98	34.736	27.78			14830	441	201	304	84	794	
STD	1750	1.82	34.743	27.80	37.22	.962	14858						
OBS	1807	1.77	34.743	27.81			14865	450	204	308	90	793	
STD	2000	1.65	34.744	27.82	36.61	1.055	14892						
OBS	2077	1.60	34.744	27.82			14903	461	197	300	95	794	
STD	2250	1.45	34.740	27.83	35.31	1.144	14926						
OBS	2353	1.36	34.736	27.83			14939	464	205	319	100	793	
STD	2500	1.21	34.730	27.84	34.37	1.232	14957						
OBS	2635	1.09	34.725	27.84			14975	473	208	309	110	792	
STD	2750	1.03	34.718	27.84	33.01	1.316	14991						
OBS	2915	1.01	34.721	27.84			15019	478	214	314	116	792	
OBS	2959	*1.00	34.715	27.84			15009	479	208	282	122	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	391	18NOV1964	315	5432S	14449W	3791	494	44	12				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			20	4	9.5	8.0	50	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x 10	OXYG ml/l	PHOS $\mu g-at/l$	NITR $\mu g-at/l$	SILIC $\mu g-at/l$	pH	DD
OBS	0	5.23	34.157	27.00			14708	710	154	211	9		
STD	0	5.23	34.157	27.00	106.75	0.000	14708						
STD	10	4.99	34.139	27.02	105.54	.011	14700						
STD	20	4.79	34.124	27.03	104.53	.021	14693						
STD	30	4.62	34.113	27.04	103.69	.032	14688						
OBS	50	4.40	34.101	27.05			14681	713	161	227	9	808	
STD	50	4.40	34.101	27.05	102.45	.052	14681						
STD	75	4.40	34.113	27.06	102.06	.078	14686						
OBS	99	4.47	34.128	27.07			14693	707	160	230	9	810	
STD	100	4.47	34.128	27.07	101.51	.103	14692						
OBS	149	4.16	34.109	27.08			14687	700	164	232	10	809	
STD	150	4.15	34.109	27.08	100.14	.154	14687						
OBS	199	3.93	34.094	27.10			14686	699	168	238	11	809	
STD	200	3.93	34.094	27.10	99.35	.203	14686						
OBS	248	3.90	34.108	27.11			14692	682	173	235	11	809	
STD	250	3.90	34.109	27.11	98.40	.253	14693						
OBS	298	3.95	34.138	27.13			14703	650	171	254	14	807	
STD	300	3.95	34.139	27.13	97.12	.302	14703						
OBS	348	4.01	34.177	27.15			14714	607	185	260	17	806	
OBS	397	4.13	34.220	27.17			14728	573	187	271	21	801	
STD	400	4.13	34.222	27.18	93.93	.397	14728						
STD	500	3.87	34.265	27.24	88.27	.488	14734						
OBS	594	3.46	34.290	27.30			14732	506	209	306	34	797	
STD	600	3.45	34.293	27.30	82.90	.574	14733						
STD	700	3.26	34.348	27.36	77.20	.654	14742						
OBS	791	3.11	34.398	27.42			14751	451	228	330	52	795	
STD	800	3.09	34.402	27.42	71.96	.729	14752						
STD	900	2.89	34.442	27.47	67.40	.798	14760						
OBS	988	2.69	34.470	27.51			14766	423	228	350	63	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	392	18NOV1964	1427	5355S	14514W	3720	494	35	22				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			20	5	9.4	8.7	30	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	7.18	34.388	26.93			14790	699	113	152	2		
STD	0	7.18	34.388	26.93	113.35	0.000	14790						
STD	10	7.17	34.383	26.93	113.71	.011	14791						
STD	20	7.16	34.379	26.93	113.95	.023	14792						
STD	30	7.14	34.375	26.93	114.09	.034	14792						
OBS	50	7.08	34.370	26.93			14793	695	114	157	1	814	
STD	50	7.08	34.370	26.93	114.02	.057	14793						
STD	75	6.97	34.368	26.95	113.30	.085	14793						
OBS	99	6.86	34.367	26.96			14793	669	128	170	4	808	
STD	100	6.86	34.367	26.96	111.99	.114	14793						
OBS	148	6.70	34.352	26.97			14794	668	133	168	4	813	
STD	150	6.70	34.352	26.97	111.71	.169	14794						
OBS	198	6.58	34.339	26.98			14797	668	134	178	5	814	
STD	200	6.57	34.338	26.98	111.80	.225	14797						
OBS	248	6.35	34.320	26.99			14796	653	146	181	5	813	
STD	250	6.33	34.319	26.99	110.91	.281	14795						
OBS	297	5.99	34.286	27.01			14789	647	153	202	7	809	
STD	300	5.98	34.285	27.01	109.60	.336	14789						
OBS	345	5.85	34.274	27.02			14791	650	149	207	6	811	
OBS	394	5.58	34.245	27.03			14787	673	149	202	6	811	
STD	400	5.56	34.244	27.03	108.87	.445	14788						
STD	500	5.26	34.253	27.07	105.15	.552	14792						
OBS	590	5.05	34.287	27.13			14798	545	179	256	18	804	
STD	600	5.01	34.288	27.13	101.02	.655	14798						
STD	700	4.57	34.305	27.19	95.20	.754	14796						
OBS	786	4.16	34.321	27.25			14794	496	210	286	30	798	
STD	800	4.10	34.325	27.26	88.85	.846	14793						
STD	900	3.68	34.359	27.33	82.33	.931	14792						
OBS	984	3.37	34.389	27.39			14793	460	213	303	44	795	
STD	1000	3.32	34.393	27.39	76.62	1.011	14794						
OBS	1224	2.85	34.453	27.48			14812	430	226	303	57	793	
STD	1250	2.81	34.462	27.49	66.78	1.190	14814						
OBS	1424	2.60	34.524	27.56			14835	412	229	313	65	791	
STD	1500	2.53	34.553	27.59	58.59	1.347	14845						
OBS	1716	2.39	34.628	27.66			14876	406	227	316	77	791	
STD	1750	2.37	34.637	27.67	51.49	1.484	14880						
STD	2000	2.26	34.691	27.72	47.93	1.608	14918						
OBS	2025	2.25	34.695	27.73			14922	416	219	306	79	793	
STD	2250	2.13	34.723	27.76	44.93	1.725	14955						
OBS	2328	2.08	34.730	27.77			14966	438	210	291	82	792	
STD	2500	1.95	34.741	27.79	43.16	1.835	14989						
OBS	2630	1.85	34.745	27.80			15007	450	208	290	88	792	
STD	2750	1.76	34.747	27.81	40.66	1.939	15023						
OBS	2932	1.62	34.745	27.82			15049	458	210	281	93	793	
STD	3000	1.55	34.742	27.82	39.24	2.039	15057						
OBS	3235	1.32	34.733	27.83			15087	467	204	295	103	791	
STD	3250	1.31	34.733	27.83	36.83	2.134	15089						
STD	3500	1.12	34.729	27.84	35.33	2.225	15123						
OBS	3538	1.09	34.729	27.84			15129	478	213	291	111	791	
STD	3750	.93	34.726	27.85	32.53	2.309	15158						
OBS	3840 *	.87	34.725	27.85			15172	471	220	315	110	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	393	20NOV1964	159	5504S	14945W	3528	494	59	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			65	6	7.6	6.8	20	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	±ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS µg-at/l	NITR µg-at/l	SILIC µg-at/l	pH	DD
OBS	0	2.92	34.025	27.14			14609	756	182	257	18	801	
STD	0	2.92	34.025	27.14	94.02	0.000	14609						
STD	10	2.84	34.022	27.14	93.65	.009	14608						
STD	20	2.75	34.019	27.15	93.08	.019	14605						
STD	30	2.64	34.018	27.16	92.32	.028	14602						
OBS	43	2.47	34.017	27.17			14597	758	188	263	18	804	
STD	50	2.33	34.017	27.18	89.93	.046	14592						
STD	75	1.89	34.022	27.22	86.50	.068	14576						
OBS	86	1.72	34.026	27.24			14571	746	194	264	21	807	
STD	100	1.67	34.028	27.24	84.23	.090	14571						
OBS	130	1.76	34.048	27.25			14580	743	198	270	22	805	
STD	150	1.99	34.096	27.27	81.65	.131	14594						
OBS	174	2.20	34.146	27.29			14608	631	208	300	30	801	
STD	200	1.97	34.133	27.30	78.84	.171	14602						
OBS	218	1.74	34.116	27.31			14594	676	208	288	31	801	
STD	250	1.52	34.125	27.33	76.24	.210	14590						
OBS	263	1.44	34.130	27.34			14588	679	220	286	34	801	
STD	300	1.09	34.118	27.35	73.86	.247	14579						
OBS	308	1.03	34.115	27.35			14577	740	210	296	34	804	
OBS	354	1.00	34.125	27.36			14584	728	216	300	36	805	
STD	400	1.27	34.176	27.39	71.17	.320	14604						
STD	500	1.95	34.310	27.44	66.24	.389	14652						
OBS	544	2.30	34.380	27.47			14675	468	235	326	58	793	
STD	600	2.39	34.434	27.51	61.87	.453	14689						
STD	700	2.40	34.514	27.57	56.27	.512	14707						
OBS	738	2.36	34.538	27.59			14712	412	237	327	70	790	
STD	800	2.34	34.574	27.63	51.45	.566	14722						
STD	900	2.29	34.622	27.67	47.93	.615	14736						
OBS	935	2.27	34.635	27.68			14742	406	240	327	74	790	
STD	1000	2.25	34.656	27.70	45.56	.662	14752						
OBS	1206	2.18	34.701	27.74			14783	420	228	314	81	789	
STD	1250	2.16	34.707	27.75	41.48	.771	14789						
OBS	1402	2.07	34.723	27.77			14811	436	223	308	82	790	
STD	1500	2.00	34.732	27.78	39.39	.872	14824						
OBS	1693	1.86	34.744	27.80			14850	445	220	300	88	794	
STD	1750	1.82	34.745	27.80	37.12	.968	14858						
OBS	1989	1.66	34.744	27.81			14891	454	218	307	92	794	
STD	2000	1.65	34.744	27.82	36.68	1.060	14892						
STD	2250	1.46	34.741	27.83	35.36	1.150	14926						
OBS	2282	1.44	34.740	27.83			14931	464	221	290	99	794	
STD	2500	1.29	34.733	27.83	35.12	1.238	14960						
OBS	2577	1.23	34.730	27.83			14971	473	224	300	105	793	
STD	2750	1.08	34.724	27.84	33.31	1.324	14994						
OBS	2873	.99	34.720	27.84			15011	476	218	311	112	792	
STD	3000	.93	34.717	27.84	32.62	1.406	15029						
OBS	3169	.88	34.714	27.84			15056	480	231	322	118	792	
STD	3250	.87	34.713	27.85	32.04	1.487	15069						
OBS	3418	*.86	34.714	27.85			15098	483	223	308	126	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	394	20NOV1964	1406	5532S	14946W	3437	494	59	12				
		WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST						
		235	5	4.8	4.3	30	4						
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.19	34.020	27.11			14621	746	174	242	16		
STD	0	3.19	34.020	27.11	96.72	0.000	14621						
STD	10	2.96	34.021	27.13	94.64	.010	14613						
STD	20	2.75	34.023	27.15	92.76	.019	14605						
STD	30	2.55	34.025	27.17	91.07	.028	14598						
OBS	50	2.23	34.030	27.20			14588	742	185	273	21	806	
STD	50	2.23	34.030	27.20	88.20	.046	14588						
STD	75	1.93	34.036	27.23	85.78	.068	14579						
OBS	99	1.77	34.046	27.25			14575	744	191	270	25	807	
STD	100	1.77	34.047	27.25	83.56	.089	14576						
OBS	148	1.80	34.085	27.28			14585	694	203	301	27	803	
STD	150	1.79	34.085	27.28	80.91	.130	14585						
OBS	197	1.65	34.102	27.30			14587	704	196	294	30	802	
STD	200	1.66	34.105	27.30	78.62	.170	14588						
OBS	246	1.92	34.161	27.33			14607	633	208	296	33	800	
STD	250	1.95	34.168	27.33	76.28	.209	14609						
OBS	295	2.26	34.242	27.37			14631	555	216	300	40	798	
STD	300	2.30	34.250	27.37	73.24	.246	14634						
OBS	345	2.54	34.307	27.39			14653	502	226	328	47	794	
OBS	394	2.29	34.321	27.43			14650	502	225	324	50	796	
STD	400	2.28	34.325	27.43	68.15	.317	14650						
STD	500	2.25	34.400	27.49	62.14	.382	14666						
OBS	591	2.40	34.481	27.55			14689	418	236	345	66	790	
STD	600	2.40	34.487	27.55	57.96	.442	14690						
STD	700	2.35	34.550	27.60	53.09	.497	14706						
OBS	787	2.30	34.594	27.64			14718	404		336	74	789	
STD	800	2.30	34.600	27.65	49.12	.549	14720						
STD	900	2.27	34.638	27.68	46.52	.596	14736						
OBS	984	2.26	34.660	27.70			14749	413	222	314	77	790	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
FL 15	395	21NOV1964	18	5601S	14953W	3345	494	69	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			260	6	4.5	1.4	245	5					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	Σ ΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	3.20	34.026	27.11			14621	750	175	246	16		
STD	0	3.20	34.026	27.11	96.35	0.000	14621						
STD	10	3.18	34.017	27.11	96.83	.010	14622						
STD	20	3.14	34.022	27.11	96.22	.019	14622						
STD	30	3.09	34.020	27.12	95.99	.029	14622						
OBS	50	2.96	34.016	27.13			14619	749	179	260	16	807	
STD	50	2.96	34.016	27.13	95.22	.048	14619						
STD	75	2.70	34.052	27.18	90.59	.071	14612						
OBS	100	2.41	34.088	27.23			14604	674	196	279	23	802	
STD	100	2.41	34.088	27.23	85.37	.093	14604						
OBS	150	1.98	34.074	27.25			14593	689	195	259	24	807	
STD	150	1.98	34.074	27.25	83.21	.135	14593						
OBS	200	1.96	34.114	27.29			14601	660	201	286	30	803	
STD	200	1.96	34.114	27.29	80.20	.176	14601						
OBS	250	1.35	34.084	27.31			14582	735	203	278	31	808	
STD	250	1.35	34.084	27.31	78.08	.216	14582						
OBS	300	1.32	34.090	27.31			14589	733	198	286	31	809	
STD	300	1.32	34.090	27.31	77.58	.255	14589						
OBS	350	2.62	34.261	27.35			14656	541	218	310	43	799	
OBS	400	2.18	34.268	27.39			14645	541	215	306	46	797	
STD	400	2.18	34.268	27.39	71.55	.329	14645						
STD	500	2.10	34.343	27.46	65.10	.398	14659						
OBS	600	2.39	34.441	27.51			14689	437	231	317	63	790	
STD	600	2.39	34.441	27.51	61.35	.461	14689						
STD	700	2.38	34.508	27.57	56.40	.520	14706						
OBS	798	2.33	34.566	27.62			14721	405	233	317	73	789	
STD	800	2.33	34.567	27.62	51.87	.574	14721						
STD	900	2.30	34.626	27.67	47.64	.624	14737						
OBS	996	2.26	34.671	27.71			14752	407	220	332	78	790	
STD	1000	2.26	34.672	27.71	44.48	.670	14752						
OBS	1177	2.18	34.699	27.74			14778	420	217	319	81	790	
STD	1250	2.14	34.711	27.75	41.04	.777	14789						
OBS	1379	2.06	34.728	27.77			14807	431	208	309	86	791	
STD	1500	1.97	34.736	27.78	38.72	.876	14823						
OBS	1681	1.83	34.742	27.80			14847	449	202	305	91	793	
STD	1750	1.78	34.744	27.80	36.77	.971	14856						
OBS	1982	1.62	34.745	27.82			14888	456	209	320	96	794	
STD	2000	1.61	34.745	27.82	36.07	1.062	14890						
STD	2250	1.41	34.739	27.83	34.76	1.150	14923						
OBS	2284	1.38	34.738	27.83			14928	465	211	322	106	794	
STD	2500	1.24	34.730	27.83	34.77	1.237	14958						
OBS	2585	1.19	34.727	27.83			14971	469	216	313	110	793	
STD	2750	1.07	34.722	27.84	33.29	1.322	14993						
OBS	2886	.98	34.718	27.84			15012	473	206	322	116	793	
STD	3000	.93	34.716	27.84	32.66	1.405	15029						
OBS	3187	.87	34.713	27.84			15059	480	211	337	124	792	
STD	3250	.86	34.713	27.84	32.04	1.486	15069						
OBS	3377 *	.86	34.713	27.85			15091	480	213	309	125	792	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS
							10°	1°	
EL 15	396	21NOV1964	1427	5629S	14953W	3273	494	69	12

WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST
315	6	5.9	5.0	315	4

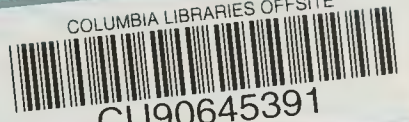
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	ΣΔD DYN M	Vm m/sec x10	OXYG ml/l	PHOS μg-at/l	NITR μg-at/l	SILIC μg-at/l	pH	DD
OBS	0	2.62	34.041	27.18			14597	748	188	274	21		
STD	0	2.62	34.041	27.18	90.33	0.000	14597						
STD	10	2.52	34.035	27.18	90.06	.009	14594						
STD	20	2.43	34.031	27.18	89.68	.018	14592						
STD	30	2.35	34.033	27.19	88.85	.027	14590						
OBS	45	2.23	34.029	27.20			14587	737	190	281	18	804	
STD	50	2.19	34.031	27.20	87.80	.045	14586						
STD	75	2.02	34.046	27.23	85.69	.066	14583						
OBS	90	1.94	34.058	27.24			14582	707	194	294	22	803	
STD	100	1.92	34.065	27.25	83.27	.087	14582						
OBS	137	1.81	34.086	27.28			14584	690	194	253	26	804	
STD	150	1.68	34.086	27.29	80.01	.128	14580						
OBS	183	1.34	34.084	27.31			14570	740	193	297	29	806	
STD	200	1.28	34.088	27.32	77.16	.168	14570						
OBS	230	1.25	34.100	27.33			14574	731	202	301	29	805	
STD	250	1.20	34.107	27.34	75.27	.206	14575						
OBS	277	1.27	34.132	27.35			14583	693	208	298	33	802	
STD	300	1.72	34.192	27.37	72.91	.243	14608						
OBS	325	2.16	34.256	27.39			14632	547	222	320	42	798	
OBS	373	1.74	34.277	27.43			14622	570	224	327	45	797	
STD	400	1.75	34.305	27.46	65.21	.312	14627						
STD	500	2.06	34.417	27.52	59.19	.374	14658						
OBS	566	2.49	34.497	27.55			14689	417	230	362	65	790	
STD	600	2.49	34.518	27.57	56.56	.432	14695						
STD	700	2.43	34.567	27.61	52.56	.486	14709						
OBS	760	2.34	34.586	27.63			14715	405	227	354	72	789	
STD	800	2.32	34.602	27.65	49.19	.537	14721						
STD	900	2.27	34.637	27.68	46.57	.585	14736						
OBS	955	2.25	34.654	27.70			14744	409	210	339	76	789	

SHIP CRS	STATION	DATE	GMT	LATITUDE	LONGITUDE	DEPTH	MARSDEN		NO. OBS				
							10°	1°					
EL 15	397	22NOV1964	30	5657S	15012W	3164	495	60	21				
			WIND DIR	FORCE	AIR TEMP	DEW POINT	SEA DIR	ST					
			330	5	5.5	5.1	320	4					
CARD TYPE	DEPTH M	TEMP °C	SALIN ‰	SIGMA-T	SPEC VOL ANOMALY	$\Sigma \Delta D$ DYN M	Vm m/sec x10	OXYG ml/l	PHOS $\mu\text{g-at/l}$	NITR $\mu\text{g-at/l}$	SILIC $\mu\text{g-at/l}$	pH	DD
OBS	0	1.72	34.110	27.30			14558	770	188	288	34		
STD	0	1.72	34.110	27.30	78.32	0.000	14558						
STD	10	1.58	34.111	27.31	77.28	.008	14553						
STD	20	1.44	34.111	27.32	76.28	.015	14549						
STD	30	1.30	34.110	27.33	75.44	.023	14544						
OBS	47	1.07	34.113	27.35			14537	772	162	289	35	803	
STD	50	1.02	34.114	27.35	73.40	.038	14535						
STD	75	.69	34.123	27.38	70.91	.056	14524						
OBS	95	.47	34.130	27.40			14518	771	201	282	40	803	
STD	100	.45	34.131	27.40	68.67	.073	14518						
OBS	143	.37	34.135	27.41			14521	767	206	289	41	803	
STD	150	.31	34.134	27.41	67.60	.107	14519						
OBS	192	.11	34.143	27.43			14517	781	208	281	42	804	
STD	200	.19	34.155	27.44	65.25	.141	14522						
OBS	241	.76	34.233	27.47			14556	649	219	318	49	799	
STD	250	.86	34.248	27.47	62.29	.173	14562						
OBS	291	1.29	34.320	27.50			14589	559	231	320	57	793	
STD	300	1.41	34.341	27.51	59.36	.203	14596						
OBS	339	1.88	34.424	27.54			14624	468	236	329	65	790	
OBS	389	2.03	34.483	27.58			14640	436	236	354	68	790	
STD	400	2.05	34.493	27.58	53.56	.259	14643						
STD	500	2.19	34.568	27.63	49.02	.311	14666						
OBS	587	2.22	34.611	27.66			14682	401	227	334	75	788	
STD	600	2.22	34.618	27.67	46.51	.359	14684						
STD	700	2.20	34.667	27.71	42.86	.403	14701						
OBS	786	2.16	34.699	27.74			14713	415	209	324	79	790	
STD	800	2.15	34.702	27.74	40.15	.445	14715						
STD	900	2.11	34.717	27.76	39.06	.484	14730						
OBS	986	2.06	34.722	27.77			14742	424	219	319	82	790	
STD	1000	2.05	34.723	27.77	38.57	.523	14744						
OBS	1191	1.91	34.738	27.79			14769	440	210	296	86	789	
STD	1250	1.87	34.741	27.80	35.90	.616	14777						
OBS	1392	1.76	34.745	27.81			14796	447	212	307	88	790	
STD	1500	1.66	34.740	27.81	35.09	.705	14809						
OBS	1593	1.57	34.735	27.81			14821	457	209	313	93	789	
STD	1750	1.42	34.740	27.83	33.00	.790	14841						
OBS	1895	1.30	34.745	27.84			14860	466	210	315	101	790	
STD	2000	1.23	34.739	27.84	32.09	.871	14874						
OBS	2199	1.10	34.725	27.84			14901	470	211	307	106	787	
STD	2250	1.07	34.723	27.84	31.85	.951	14908						
OBS	2500	.92	34.718	27.85			14944	476	215	331	113	789	
STD	2500	.92	34.718	27.85	31.67	1.031	14944						
STD	2750	.82	34.713	27.85	30.69	1.109	14982						
OBS	2801	.80	34.712	27.85			14990	476	214	320	120	787	
STD	3000	.77	34.712	27.85	30.80	1.186	15022						
OBS	3102	.76	34.712	27.85			15040	479	214	320	125	787	
OBS	3186	* .76	34.711	27.85			15054	479	224	335	122	788	



FIGURE 1
ELTANIN HYDROGRAPHIC STATIONS
CRUISES 7-15

COLUMBIA LIBRARIES OFFSITE



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