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DISTRIBUTION OF NUTRIENTS
IN THE WEDDELL SEA

FEBRUARY-MARCH 1968—FEBRUARY-MARCH 1969

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REPORT No. 33 CG 373-33

DISTRIBUTION OF NUTRIENTS
IN THE WEDDELL SEA

FEBRUARY-MARCH 1968—FEBRUARY-MARCH 1969

Gary L. Hufford
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USCGC GLACIER (WAGB 4)

ABSTRACT

This report discusses the nutrient distribution in the Weddell Sea during the austral summers of 1968 and 1969. The work was done on the icebreaker USCGC GLACIER (WAGB 4) as part of the International Weddell Sea Oceanographic Expedition. Simultaneous measurements of phosphate, nitrate, nitrite, ammonia, silicate, and oxygen yield useful information regarding the biological activity in the Weddell Sea.

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Distribution Of Nutrients In The Weddell Sea

February–March 1968

February–March 1969

INTRODUCTION

With the exception of the Ross Sea, the Weddell Sea forms the largest indentation in the roughly zonal coastline of the Antarctic Continent. It is bounded to the west by the Palmer Peninsula, to the east by Coats Land and to the south by the Filchner Ice Shelf. To the north, the basin is partially blocked by part of the Scotia Ridge (fig. 1).

Knowledge of the Weddell Sea has been limited to its periphery due to a perennial ice cover. Except for a few observations that were made along the drift tracks of the DEUTSCHLAND (1911–1912) (Brennecke, 1921) and the ENDURANCE (1914–1916) (Deacon, 1937), the waters of the central and western regions of the sea remain unknown. From the scanty data available, the Weddell Sea is recognized as a major source of Antarctic Bottom Water (Deacon, 1963). This Bottom Water is a major constituent of the deep water found in the Pacific, Indian, and Atlantic Oceans, and is important in deep-water circulation.

Nutrient measurements in the Weddell Sea are almost nonexistent. The work of Clowes (1938) and others show that the amount of phosphate, nitrate, and silicate in the Antarctic surface waters rarely fall below the winter maxima of temperate regions. A southward moving, warm saline layer ($>0.2^{\circ}\text{C}$, $>34.67\text{‰}$) in the Antarctic region has the highest phosphate and nitrate concentrations. Silicate is most abundant in the bottom waters.

IWSOE '68 AND '69

Scientists of the U.S. Antarctic Research Program of the National Science Foundation

have been interested for several years in obtaining oceanographic data in the Weddell Sea. Under their coordination, the International Weddell Sea Oceanographic Expedition (IWSOE) was formed as a cooperative multidisciplinary study of this unknown region. The United States assigned the icebreaker USCGC GLACIER (WAGB 4) as the research vessel for the cruise. As a research platform, the GLACIER was modified to accommodate five laboratories, an expendable bathythermograph launcher and recorder, a STD (salinity-temperature-depth) system, a hydrographic winch, a luffing crane, a PDP-8 computer, a precision depth recorder, a satellite navigation system, and an automatic picture transmission system for recording satellite photos.

The IWSOE was divided into different phases. The primary objective of IWSOE '68, the first phase, was to place four Norwegian instrumented buoys on the Weddell Sea's continental slope to measure temperature and deep currents believed associated with the formation of Antarctic Bottom Water (University of Bergen). Other studies carried out for the IWSOE '68 were primary productivity (Texas A&M University), benthic zonation (University of Connecticut), sub-ice productivity (University of Miami, Florida), sedimentation (Florida State University), trace elements (Yale University), and seal populations (University of Minnesota). The Coast Guard Oceanographic Unit obtained hydrographic data, bottom photographs, cores, and nutrient samples. More detailed information on the programs can be found in the work of Elder and Seabrooke (in press).

IWSOE '69 was the second phase of the

oceanographic program. Its primary objective was the recovery of the four instrumented buoys placed near 74° S. and 40° W., which was not achieved due to severe ice conditions. Several other programs were carried out during the expedition: seal census (University of Minnesota), bottom coring (University of California, Los Angeles), and benthic zonation (University of Connecticut). The Coast Guard Oceanographic Unit obtained hydrographic data, bottom photographs, and nutrient samples. More detailed information on the programs can be found in the paper of Hufford and Seabrooke (in press).

DATA ACQUISITION

The USCGC GLACIER operated in the Weddell Sea from February 1 to March 15, 1968 and again from February 17 to March 24, 1969. The station locations are shown in Figure 1. Water was sampled as close to the sea floor as possible with a Benthos pinger attached to the end of the hydro-wire. The water samples were obtained in Teflon-coated Nansen bottles and in some cases, from plastic (PVC) Niskin bottles. Acquisition of the physical data obtained is described by Hufford and Elder (1969).

Water samples were analyzed at sea for salinity, dissolved oxygen, pH, inorganic phosphate, nitrate-Nitrogen, nitrite-Nitrogen, and silicate. Techniques described in the manual of Strickland and Parsons (1965) were used to determine pH, silicate, nitrate, nitrite, phosphate and dissolved oxygen. Salinity was determined using an inductive salinometer. Frozen samples for ammonia and total phosphorus were returned to the U.S. Coast Guard Oceanographic Unit for later analysis. Nitrogen data for stations 30–60 and phosphorus values for stations 43–60 from the 1968 cruise proved unreliable due to accidental thawing after malfunction of the spectrophotometer required that the samples be frozen. However, a few individual nitrate values from stations 30–60 which were quality controlled have been used in cross sections A and B.

Section profiles of the data taken in the Weddell Sea during the '68 and '69 cruises are given in Figures 2–17. The distribution of the chemical parameters measured is indicated by

smooth contours, omitting any questionable points. Exact placement of the individual sections may be obtained from the map of station positions and section locations in Figure 1.

DISTRIBUTION OF NUTRIENTS

The ranges of concentration for the various nutrients in the Weddell Sea were:

inorganic phosphate	1.1–2.7 $\mu\text{g-at/L}$
nitrate-Nitrogen	16–32 $\mu\text{g-at/L}$
nitrite-Nitrogen	0.1–0.5 $\mu\text{g-at/L}$
silicate-Silicon	39–125 $\mu\text{g-at/L}$
ammonia (amino acids)	0.1–6 $\mu\text{g-at/L}$

The surface waters of the southwest and southeast regions of the Weddell Sea have comparable nutrient concentrations. However, the central region was an area of lower concentrations. These lower values may be due to the heavy perennial ice cover, but many factors affecting this area are unknown and further investigation is needed.

In general, the vertical distributions of the nutrients in the Weddell Sea fit the classical description. On the continental shelf, phosphate, nitrate, and silicate concentrations increase with depth to about 50 meters, then remain constant to the bottom. Off the shelf, phosphate, nitrate and silicate generally increase with depth until a maximum is reached at an intermediate depth (400–1600 meters). This maximum is associated with the Warm Deep Layer. Farther north, in the deep basin, phosphate and nitrate distribution is similar to the area just off the shelf, but the silicate concentration increases monotonically with depth to within a few hundred meters of the bottom, reaching values as high as 120 $\mu\text{g-at/L}$.

Nitrite and ammonia are intermediate products of organic decomposition. Both fractions tend to accumulate below the euphotic zone where regeneration to nitrate is assumed to be intense (Redfield, Ketchum and Richards, 1963). In the Weddell Sea, nitrite and ammonia were present in highest concentrations in the upper 200 meters. However, both were present in deeper waters. This may be due to a large mortality of sinking phytoplankton which are decomposing at depth.

DISCUSSION

In his original paper on the proportions of organic derivatives in sea water, Redfield (1934) speculated that biological processes might determine these proportions. Marine organisms contain in their protoplasm nitrogen and phosphorus in approximately the same ratio as in the ocean. The stoichiometric ratios have been determined by previous workers (Redfield, 1934; Cooper, 1938; Fleming, 1940) to be—O : C : N : P = 276 : 106 : 16 : 1. Grill and Richards (1964) obtained the silicate to phosphate ratio of 23:1 during the biochemical oxidation of organic matter in the laboratory. This linear relationship existed only in an intermediate concentration range (15–40 $\mu\text{g-at/L}$ of silicate).

In order to compare the ratios found in the Weddell Sea with the theoretical stoichiometric ratios given above, the nutrient quantities were converted to ratios by atoms and subjected to a least squares regression. Using the general mean values from the vertical sections for IWSOE '69 (fig. 13–17), these ratios were obtained:

Continental Shelf N : Si : P = 15.8 : 31.2 : 1
Warm Deep Layer N : Si : P = 14.3 : 55.2 : 1
Bottom Layer N : Si : P = 14.4 : 55.1 : 1

The ratios for nitrate and phosphate observed in the Weddell Sea were in general agreement with the theoretical ratios. However, there was a large deviation from the 23 : 1 silicate-to-phosphate ratio suggested by Grill and Richards (1964), particularly in deep water samples in which there were very high ($>40 \mu\text{g-at/L}$) concentrations of silicate. Silicate values in the Weddell Sea increased monotonically with depth to concentrations greater than $120 \mu\text{g-at/L}$ near the bottom of the basin. These high silicate values distort the ratios of silicate and phosphate from the classical stoichiometric values.

The close correspondence of the nitrate-to-phosphate ratios with 16 : 1, the theoretical value, allowed the use of the preformed nutrient concept in tracing water masses in the Weddell Sea (Redfield, 1942). In calculating preformed nutrients, the oxidation ratio of O : N : P = 276 : 16 : 1 was used. The good fit between the observational values and the values in the literature provide a valuable check on the validity of the concept in the Weddell Sea.

Hufford and Seabrooke (in press) used preformed nutrient values from the Weddell Sea to determine the water masses present. Analysis of the data indicated three water masses: continental Shelf Water ($\text{PO}_4 = 1.81$, $\text{NO}_3 = 23.07 \mu\text{g-at/L}$); a Warm Deep Layer ($\text{PO}_4 = 1.35$, $\text{NO}_3 = 9.11 \mu\text{g-at/L}$ (400–1600 meters)); and Antarctic Bottom Water ($\text{PO}_4 = 1.59$, $\text{NO}_3 = 13.85 \mu\text{g-at/L}$) (fig. 10, 11, 16, 17). There was an excellent similarity between the distributions of temperature, salinity and the preformed nutrients.

Simultaneous observations of oxygen and the nutrients can yield useful information regarding the biological activity in the surface waters. In the absence of physical dissipation and *in situ* temperature changes, the degree of oxygen supersaturation or negative apparent oxygen utilization (AOU) in the surface layer should represent the excess of photosynthesis over respiration (Steffanson and Richards, 1964). Negative AOU and oxygen supersaturation were calculated using the tables of Green and Carrett (1967). Negative AOU and oxygen supersaturation were found only in the southwest region of the Weddell Sea indicating this area to be more biologically active than the central or southeastern regions. Distribution of surface chlorophyll and carbon-14 measurements in the Weddell Sea by El-Sayed (1968) also indicate that the southwest portion is by far the most productive; but there were conspicuous variations in productivity within areas visited.

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Figure 1. Location of stations and sections taken by the icebreaker USCGC GLACIER during 1968 and 1969.

Figure 2. Distribution of inorganic phosphate along a section (A) perpendicular to the Filchner Ice Shelf (IWSOE '68). Contour interval is 0.1 $\mu\text{g-at/L}$.

Figure 3. Distribution of nitrate along a section (A) perpendicular to the Filchner Ice Shelf (IWSOE '68). Contour interval is 2 $\mu\text{g-at/L}$ except for the 25 $\mu\text{g-at/L}$ contour.

Figure 4. Distribution of silicate along a section (A) perpendicular to Filchner Ice Shelf (IWSOE '68). Contour interval is 5 $\mu\text{g-at/L}$.

Figure 5. Distribution of dissolved oxygen along a section (A) perpendicular to the Filchner Ice Shelf (IWSOE '68). Contour interval is 5 ml/l except for values >7.5 ml/l.

Figure 6. Distribution of inorganic phosphate along a section (B) perpendicular to Coats Land (IWSOE '68). Contour interval is 0.1 $\mu\text{g-at/L}$ except for the 1.5 $\mu\text{g-at/L}$ contour over the shelf.

Figure 7. Distribution of nitrate along a section (B) perpendicular to Coats Land (IWSOE '68). Contour interval is 1 $\mu\text{g-at/L}$.

Figure 8. Distribution of silicate along a section (B) perpendicular to Coats Land (IWSOE '68). Contour interval is 5 $\mu\text{g-at/L}$ except for the 102 $\mu\text{g-at/L}$ contour and the area over the shelf.

Figure 9. Distribution of dissolved oxygen along a section (B) perpendicular to Coats Land (IWSOE '68). Contour interval is 0.2 ml/l except for the values between 6.0 and 7.2 ml/l when interval is 0.4 ml/l.

Figure 10. Distribution of preformed phosphate along section (A) perpendicular to the Filchner Ice Shelf (IWSOE '68). Contour interval is $0.1 \mu\text{g-at/L}$.

Figure 11. Distribution of preformed nitrate along a section (A) perpendicular to the Filchner Ice Shelf (IWSOE '68). Contour interval is $2 \mu\text{g-at/L}$.

Figure 12. Distribution of inorganic phosphate along a section (C) perpendicular to Coats Land (IWSOE '69). Contour interval is $0.1 \mu\text{g-at/L}$ except in the near-surface waters where it is irregular.

Figure 13. Distribution of nitrate along a section (C) perpendicular to Coats Land (IWSOE '69). Contour interval is $1 \mu\text{g-at/L}$.

Figure 14. Distribution of silicate along a section (C) perpendicular to Coats Land (IWSOE '69). Contour interval is 5 $\mu\text{g-at/L}$ except between 120 and 122 $\mu\text{g-at/L}$ contours.

Figure 15. Distribution of dissolved oxygen along section (C) perpendicular to Coats Land (IWSOE '69). Contour interval is 0.5 ml/l.

Figure 16. Distribution of preformed phosphate along a section (C) perpendicular to Coats Land (IWSOE '69). Contour interval is $0.1 \mu\text{g-at/L}$.

Figure 17. Distribution of preformed nitrate along a section (C) perpendicular to Coats Land (IWSOE '69). Contour is $1 \mu\text{g-at/L}$.

APPENDIX A

OCEANOGRAPHIC DATA

A complete description of the codes utilized in the tabulation of oceanographic station data can be found in National Oceanographic Data Center publication M-2, *Processing Physical and Chemical Data from Oceanographic Stations*. (Rev. August 1964, supplement issued May 1966.)

To facilitate use of the oceanographic station data listing, entry headings which are not self-explanatory are described below.

Depth to Bottom	Corrected or uncorrected sounding in meters.
Max. Depth of Samples	Depth of deepest sample to nearest multiple of one hundred meters.
Wave observations	
DIR	Rounded to nearest multiple of ten degrees.
HGT	In increments of 1/2 m. Sum of 5 meters plus increments of 1/2 m if 50 is added to direction.
PER	In numerals 2 through 9 are entered, period in seconds is twice the numeric entry or 2X (numeric entry) + 1. For other entries see WMO Code 3155.
SEA	Sea state according to WMO Code 3700.
Weather Code	If preceded by x, weather according to WMO Code 4501. If a two-digit entry, weather according to WMO Code 4677.
Cloud Code	
Type	Cloud type according to WMO Code 0500.
Amount	Cloud amount in eights. Entry of the numeral 9 indicates cloud amount could not be estimated.
Water	
Color Code	Color according to Forel-Ule scale.
Trans	Transparency in whole meters as determined by Secchi disc.
Wind	
Dir	Rounded to nearest multiple of ten degrees.
Speed or Force	If preceded by letter S, wind speed in knots; if preceded by letter F, wind force according to Beaufort scale.
Barometer	Barometric pressure given in tens, units and tenths of millibars.
Air Temp. °C	Air temperature to tenths of a degree centigrade.
Vis. Code	Visibility according to WMO Code 4300.
No obs. depths	Number of observed levels associated with the station.
Messenger time	Entered in hours and tenths of an hour GMT. For Nansen casts, indicates time of release of messenger applicable to the observational level. For STD casts, indicates the starting time of lowering the sensor.
Card type	OBS designates observed levels. STD indicates the values at this standard level were interpolated by a modified 3-point LaGrange formula.
Depth(m)	Depth to nearest meter. A postscript T indicates depth was obtained thermometrically; indicates uncorrected "wire out" depth. Postscript Q indicates value was marked doubtful by originator; P indicates value was considered doubtful by NODC. Postscripts P and Q retain this meaning throughout the following entries.
T °C	Temperature to hundredths of a degree Centigrade.
S ‰	Salinity in parts-per-thousand.
SIGMA-T	Entered to hundredths.

Specific-volume	Multiply entry by 10^{-7} to obtain specific-volume anomaly in cubic centimeters per gram.
Anomaly - x 10^7	
$\Sigma \Delta$ Dyn. M. x 10^3	Multiply entry by 10^{-3} to obtain anomaly of dynamic height in dynamic meters referenced to the sea surface.
Sound Velocity	Sound velocity according to Wilson's formula entered to tenths of a meter per second.
O ₂ ml/l	Dissolved oxygen in millimeters per liter entered to hundredths.
PO ₄ - P μ g-at/l	Inorganic phosphate in microgram-atoms per liter entered to hundredths.
Total-P μ g-at/l	Total phosphorus in microgram-atoms per liter entered to hundredths.
NO ₂ -N μ g-at/l	Nitrite-nitrogen in microgram-atoms per liter entered to hundredths.
NO ₃ -N μ g-at/l	Nitrate-nitrogen in microgram-atoms per liter entered to tenths.
SiO ₄ -Si μ g-at/l	Silicate-silicon in microgram-atoms per liter entered to whole units.
pH	Entered to hundredths.

Table 1. Observed and interpolated oceanographic data from stations taken by USCGC GLACIER during the 1968 International Weddell Sea Oceanographic Expedition, 6 February to 14 March 1968, prepared from NODC listing No. 31-8037.

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ORBIT INDEX	MARSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
						10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT		
318037	GL		74075S	039365W		555	49	02	06	208	1968	001	0640	06	00	0	X		X1	6	6	0001
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB										
									20	504	946	-033	7	12								
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	°C				
			STD 0000	-0139	3386	2727	0008147		0000	14413	864											
208		OBS 0000	-0139	33864	2727					14413	864	156				224	044	825				
		STD 0010	-0153	3387	2728		0008034		0008	14408	850											
208		OBS 0010	-0153	33873	2728					14408	850	159				199	045	826				
		STD 0020	-0148	3406	2743		0006606		0015	14414	827											
208		OBS 0026	-0147	34152	2750					14417	815	176				245	053	825				
		STD 0030	-0150	3418	2753		000675		0022	14417	810											
		STD 0050	-0162	3429	2762		0004787		0032	14416	782											
208		OBS 0052	-0163	34295	2762					14416	779	188				237	065	826				
		STD 0075	-0169	3434	2766		0004370		0043	14418	744											
208		OBS 0077	-0170	34347	2767					14418	742	233				255	070	817				
		STD 0100	-0177	3435	2767		0004257		0054	14418	728											
208		OBS 0103	-0178	34352	2767					14418	726	210				330	068	822				
		STD 0125	-0179	3436	2768		0004160		0065	14422	720											
		STD 0150	-0180	3437	2769		0004066		0075	14425	712											
208		OBS T0155	-0180	34372	2769					14426	710	254				304	070	830				
		STD 0200	-0179	3439	2770		0003885		0095	14434	688											
208		OBS 0207	-0178	34395	2771					14436	685	215				225	075	825				
		STD 0250	-0166	3441	2772		0003744		0114	14449	672											
		STD 0300	-0151	3444	2774		0003541		0132	14465	652											
208		OBS 0312	-0147	34445	2774					14469	646	246				339	071	825				
		STD 0400	-0112	3451	2778		0003123		0166	14501	587											
208		OBS 0416	-0107	34515	2778					14506	582	238				327	083	824				
		STD 0500	-0105	3457	2783		0002664		0194	14522	595											
208		OBS T0520	-00840	34573	2782					598	231					315	090	819				
		STD 0600	-0103	3457	2783		0002642		0221	14539	579											
208		OBS T0627	-0102	34561	2782					14544	566	249				311	094	830				

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ORBIT INDEX	MARSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
						10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT		
318037	GL		74559S	048405W		556	48	02	38	000	1968	002	0544	05	00	0	X		X1	0	3	0002
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB										
						DT	SD	19	508	959	-022	7	16									
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	°C				
			STD 0000	-0173	3393	2733	0007568		0000	14397												
015		OBS 0000	-0173	33928	2733					14397												
		STD 0010	-0159	3420	2754		0005523		0007	14410												
		OBS 0010	-0159	34198	2754					14410												
		OBS 0016	-0159	34238	2757					14411												
		STD 0020	-0166	3437	2768		0004194		0011	14410												
		OBS 0020	-0166	34368	2768					14410												
		STD 0030	-0170	3441	2772		0003871		0015	14411												
		OBS 0030	-0170	34408	2772					14411												
		STD 0050	-0165	3446	2776		0003452		0023	14417												
		OBS 0050	-0165	34463	2776					14417												
		STD 0075	-0166	3452	2780		0003014		0031	14422												
		OBS 0075	-0166	34518	2780					14422												
		STD 0100	-0172	3452	2781		0002945		0038	14423												
		OBS 0100	-0172	34523	2781					14423												
		STD 0125	-0165	3454	2782		0002836		0046	14431												
		OBS 0125	-0165	34538	2782					14431												
		STD 0150	-0172	3455	2783		0002687		0052	14432												
		OBS 0150	-0172	34553	2783					14432												
		STD 0200	-0174	3457	2785		0002539		0065	14439												
		OBS 0200	-0174	34568	2785					14439												
		STD 0250	-0175	3458	2786		0002393		0078	14447												
		OBS 0250	-0175	34583	2786					14447												
		STD 0300	-0178	3460	2788		0002203		0089	14454												
		OBS 0300	-0178	34603	2788					14454												
		STD 0400	-0183	3462	2789		0001978		0110	14459												
		OBS 0400	-0183	34623	2789					14469												
		STD 0500	-0182	3468	2794		0001507		0128	14487												
		OBS 0500	-0182	34678	2794					14487			</									

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)		AIR TEMP. °C DRY BULB	WET BULB			VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
318037	GL	74559S	048405W	556	48	02	08	044	1968		002		0560	05	00	0	X		X1	7	7		0003
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS.		NO.		SPECIAL					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	OBSERVATIONS								
									20	509	967		-039	7	12								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	3 C				
		STD	0000	-0169	3397	2736		0007255		0000	14400	786											
044	OBS	0000	-0169	33970	2736						14400	786	191		013	289	066	816					
	STD	0010	-0170	3397	2736				0007246	0007	14401	797											
044	OBS	0010	-0170	33970	2736						14401	797	191		020	303	065	816					
	STD	0020	-0166	3422	2756				0005330	0014	14408	786											
044	OBS	0027	-0165	34349	2767						14412	776	215		012	248	067	816					
	STD	0030	-0166	3436	2768				0004251	0018	14412	769											
	STD	0050	-0169	3442	2773				0003770	0026	14414	733											
044	OBS	0054	-0170	34431	2773						14415	728	227		015	290	072	814					
	STD	0075	-0159	3449	2778				0003248	0035	14424	712											
044	OBS	0080	-0158	34499	2779						14426	708	225		008	297	075	814					
	STD	0100	-0166	3452	2781				0002985	0043	14426	690											
044	OBS	0107	-0168	34529	2781						14426	685	225		041	279	076	810					
	STD	0125	-0168	3454	2782				0002812	0050	14429	680											
	STD	0150	-0168	3455	2783				0002722	0057	14433	673											
044	OBS	T0159	-0168	34556	2784						14435	671	236		007	288	077	807					
	STD	0200	-0172	3457	2785				0002530	0070	14440	661											
044	OBS	0211	-0173	34578	2785						14442	660	233		012	245	077	809					
	STD	0250	-0176	3459	2786				0002337	0082	14447	669											
	STD	0300	-0179	3460	2787				0002223	0094	14454	678											
044	OBS	0314	-0180	34605	2788						14456	680	228		013	304	076	809					
	STD	0400	-0183	3463	2790				0001926	0115	14469	686											
044	OBS	0415	-0183	34632	2790						14472	687	231		024	286	074	808					
044	OBS	0465	-0182	34650	2792						14481	687	226		010	295	076	808					
	STD	0500	-0183	3467	2793				0001564	0132	14486	680											
044	OBS	T0515	-0184	34679	2794						14489	676	227		010	311	082	801					

REFERENCE CITY ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
					OT	SD	13	511	014														
318037	GL	75031S	050122W	557	50	02	08	180	1968		003		0503	05	00	0	X		X1	0	3		0004
					WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB	WET BULB													
					OT	SD	13	511	014				-020	7	16								
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	3 C						
187		STD	0000	-0162	3400	2738	0007057	0000	14404														
		OBS	0000	-0162	33998	2738			14404														
		STD	0010	-0163	3438	2769	0004131	0006	14410														
		OBS	0010	-0163	34378	2769			14410														
		STD	0020	-0173	3445	2775	0003524	0009	14408														
		OBS	0020	-0173	34453	2775			14408														
		STD	0030	-0178	3448	2778	0003275	0013	14408														
		OBS	0030	-0178	34483	2778			14408														
		OBS	0032	-0172	34488	2778			14411														
		STD	0050	-0174	3451	2780	0003044	0019	14414														
		OBS	0050	-0174	34513	2780			14414														
		STD	0075	-0174	3453	2782	0002876	0027	14418														
		OBS	0075	-0174	34533	2782			14418														
		STD	0100	-0174	3455	2783	0002747	0034	14422														
		OBS	0100	-0174	34548	2783			14422														
		STD	0125	-0179	3456	2784	0002643	0040	14424														
		OBS	0125	-0179	34558	2784			14424														
		STD	0150	-0181	3457	2785	0002546	0047	14428														
		OBS	0150	-0181	34568	2785			14428														
		OBS	0184	-0185	34578	2786			14431														
	STD	0200	-0183	3458	2786	0002397	0059	14435															
	OBS	0200	-0183	34583	2786			14435															
	STD	0250	-0187	3460	2787	0002241	0071	14442															
	OBS	0250	-0187	34598	2787			14442															
	STD	0300	-0185	3462	2789	0002066	0082	14451															
	OBS	0300	-0185	34618	2789			14451															
	STD	0400	-0186	3465	2791	0001777	0101	14468															
	OBS	0400	-0186	34648	2791			14468															
	OBS	0458	-0186	34658	2792			14478															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INCHES	WATERS SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.		STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318037	GL	75320S	054260W	557	54	02	09	030	1968		004		0476	04	00	0	X		X1	0 3		0005
						WAVE		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB											
						0T	SD	20	S06	005	-065		7	20								
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C					
		STD	0000	-0153	3386	2727	0008155	0000	14406													
022		OBS	0000	-0153	33858	2727			14406													
		OBS	0007	-0138	34298	2762			14420													
		STD	0010	-0161	3434	2766	0004443	0006	14411													
001		OBS	0010	-0161	34338	2766			14411													
		OBS	0016	-0169	34368	2768			14408													
		STD	0020	-0172	3439	2770	0004026	0011	14408													
		OBS	0020	-0172	34388	2770			14408													
		STD	0030	-0180	3441	2772	0003846	0014	14406													
		OBS	0030	-0180	34408	2772			14406													
		OBS	0032	-0181	34408	2772			14406													
		OBS	0040	-0182	34418	2773			14407													
		STD	0050	-0181	3442	2773	0003747	0022	14409													
		OBS	0050	-0181	34419	2773			14409													
		STD	0075	-0179	3444	2774	0003576	0031	14414													
		OBS	0075	-0179	34440	2774			14414													
		OBS	0080	-0179	34440	2774			14415													
		STD	0100	-0178	3446	2776	0003426	0040	14419													
		OBS	0100	-0178	34458	2776			14419													
		STD	0125	-0175	3447	2777	0003343	0048	14425													
		OBS	0125	-0175	34468	2777			14425													
		STD	0150	-0174	3450	2779	0003095	0056	14430													
		OBS	0150	-0174	34499	2779			14430													
		STD	0200	-0175	3454	2782	0002773	0071	14438													
		OBS	0200	-0175	34537	2782			14438													
		STD	0250	-0178	3456	2784	0002567	0084	14446													
		OBS	0250	-0178	34559	2784			14446													
		STD	0300	-0188	3460	2787	0002209	0096	14450													
		OBS	0300	-0188	34598	2787			14450													
		OBS	0320	-0191	34608	2788			14452													
		OBS	0360	-0189	34618	2789			14459													
		OBS	0392	-0191	34628	2790			14464													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INCHES	WATERS SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR, 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER				
318037	GL	76002S	056459W	557	66	02	09	150	1968		005		0450	04	00	0	X		X1	0 3		0006
						WAVE H		WIND		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
COLOR CODE		TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB															
0T		SD	22	S13	017	-110		7	14													
MESSAGE TIME OF HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C				
		STD	0000	-0152																		
147		OBS	0000	-0152																		
		STD	0010	-0183	3431	2764	0004619			14400												
		OBS	0010	-0183	34308	2764				14400												
		STD	0020	-0185	3436	2768	0004186			14401												
		OBS	0020	-0185	34363	2768				14401												
		STD	0030	-0186	3438	2770	0004024			14403												
		OBS	0030	-0186	34383	2770				14403												
		STD	0050	-0185	3440	2772	0003860			14407												
		OBS	0050	-0185	34403	2772				14407												
		STD	0075	-0183	3443	2774	0003658			14412												
		OBS	0075	-0183	34428	2774				14412												
		STD	0100	-0183	3444	2774	0003566			14417												
		OBS	0100	-0183	34438	2774				14417												
		STD	0125	-0185	3444	2775	0003507			14420												
		OBS	0125	-0185	34443	2775				14420												
		STD	0150	-0184	3446	2776	0003342			14425												
		OBS	0150	-0184	34463	2776				14425												
		STD	0200	-0176	3453	2782	0002800			14438												
		OBS	0200	-0176	34533	2782				14438												
		STD	0250	-0173	3456	2784	0002553			14448												
		OBS	0250	-0173	34563	2784				14448												
		STD	0300	-0172	3460	2787	0002223			14457												
		OBS	0300	-0172	34603	2787				14457												
		STD	0400	-0183	3465	2791	0001787			14469												
		OBS	0400	-0183	34648	2791				14469												
		OBS	0418	-0186	34678	2794				14471												

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE MOYR	MARSOEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	
318037	GL	76002S	056457W	557	66	02 09 180	1968	005		0450	04	00	0	X		X1	3 17	0007
					WA"R	WIND	AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mba)	DRY BULB	WET BULB	VIS. CODE						
							24	S10	015	-090	7	11						

MESSAGE TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S °C
		STD	0000	-0167	3394	2734	0007467	0000	14401	911							
171		OBS	0000	-0167	33943	2734			14401	911	147			030	144	056	837
		STD	0010	-0153	3401	2739	0006990	0007	14410	944							
171		OBS	0010	-0153	34009	2739			14410	944	146			016	164	057	840
		STD	0020	-0154	3413	2749	0006053	0014	14413	904							
171		OBS	0025	-0155	34176	2752			14414	886	181			014	198	060	830
		STD	0030	-0159	3422	2756	0005343	0019	14413	873							
		STD	0050	-0171	3435	2767	0004302	0029	14413	826							
171		OBS	0051	-0172	34360	2768			14412	824	202			017	258	068	821
		STD	0075	-0182	3443	2774	0003645	0039	14413	785							
171		OBS	0077	-0183	34437	2774			14413	781	223			014	293	071	815
		STD	0100	-0186	3444	2775	0003544	0048	14415	718							
171		OBS	0102	-0186	34440	2775			14415	714	235			022	291	072	819
		STD	0125	-0185	3445	2775	0003493	0057	14420	713							
		STD	0150	-0183	3445	2775	0003444	0065	14425	712							
171		OBS	T0154	-0183	34451	2775			14426	712	258			015	289	072	815
		STD	0200	-0176	3446	2776	0003359	0082	14437	721							
171		OBS	0206	-0175	34462	2776			14438	722	227			013	290	073	816
		STD	0250	-0173	3449	2778	0003109	0099	14447	694							
		STD	0300	-0171	3453	2781	0002783	0113	14457	677							
171		OBS	T0308	-0171	34534	2782			14458	676	231			030	313	075	816
		STD	0400	-0181	3466	2792	0001703	0136	14471	695							
171		OBS	T0414	-0183	34674	2793			14472	698	220			009	300	074	815
171		OBS	T0443	-0188	34694	2795			14475	688	225			012	290	073	820

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE MOYR	MARSOEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	
318037	GL	75533S	057239W	557	57	02 10 030	1968	006		0360	03	00	0	X		X1	0 3	0008
					WA"R	WIND	AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mba)	DRY BULB	WET BULB	VIS. CODE						
					DT	SD	18	S10	015	-110	7	14						

MESSAGE TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S °C
		STD	0000	-0184	3384	2726	0008236	0000	14391								
023		OBS	0000	-0184	33838	2726			14391								
		STD	0010	-0171	3425	2759	0005109	0007	14405								
		OBS	0010	-0171	34248	2759			14405								
003		OBS	0012	-0146	34248	2758			14417								
		STD	0020	-0159	3428	2761	0004904	0012	14412								
		OBS	0020	-0159	34278	2761			14412								
		STD	0030	-0174	3434	2766	0004398	0016	14408								
		OBS	0030	-0174	34338	2766			14408								
		STD	0050	-0180	3439	2770	0003988	0025	14409								
		OBS	0050	-0180	34388	2770			14409								
		STD	0075	-0181	3442	2773	0003748	0034	14413								
		OBS	0075	-0181	34417	2773			14413								
		STD	0100	-0183	3446	2776	0003413	0043	14417								
		OBS	0100	-0183	34458	2776			14417								
		STD	0125	-0188	3447	2777	0003308	0052	14419								
		OBS	0125	-0188	34468	2777			14419								
		STD	0150	-0199	3450	2780	0002995	0060	14418								
		OBS	0150	-0199	34503	2780			14418								
		STD	0200	-0212	3457	2786	0002432	0073	14421								
		OBS	0200	-0212	34568	2786			14421								
		STD	0250	-0213	3458	2786	0002312	0085	14429								
		OBS	0250	-0213	34579	2786			14429								
		STD	0300		3459												
		OBS	0300		34588												
		OBS	0340		34597												

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	HARDEN SQUARE	STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO		DAY	HR.1/10			CRUISE NO.	STATION NUMBER	DIR.		HGT	PER		SEA	TYPE
	318037	GL	75533S	057239W	557	57	02	10	030	1968		006	0360	03	00	0	X		X1	7 6		0009
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
COLOR CODE		TRANS. (M)	DIR.	SPEED OR FORCE	METER (mb)		DRY BULB	WET BULB														
					18	S10	015		-110	7	10											
MESSAGE TIME NR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CC					
		STD	0000	-0174	3383	2725		0008296	0000	14396	957											
	037	OBS	0000	-0174	33833	2725				14396	957	111			108	053	837					
		STD	0010	-0175	3383	2725	0008295	0008	14397	993												
	037	OBS	0010	-0175	33832	2725			14397	993	111				107	053	839					
		STD	0020	-0170	3384	2725	0008238	0017	14401	986												
	037	OBS	0025	-0168	33871	2728			14403	982	123				115	053	839					
		STD	0030	-0168	3401	2739	0006931	0024	14406	923												
		STD	0050	-0170	3437	2768	0004182	0035	14413	766												
	037	OBS	0050	-0170	34366	2768			14413	766	215				265	068	813					
	037	OBS	0074	-0181	34423	2773			14413	747	227				285	070	811					
		STD	0075	-0181	3443	2774	0003648	0045	14413	745												
	037	OBS	0099	-0184	34467	2777			14416	714	215				290	071	811					
		STD	0100	-0184	3447	2777	0003318	0054	14416	714												
		STD	0125	-0188	3449	2779	0003139	0062	14419	715												
	037	OBS	0149	-0190	34512	2781			14422	715	236				291	071	809					
		STD	0150	-0190	3451	2781	0002943	0069	14423	715												
	037	OBS	0198	-0191	34558	2784			14431	724	224				295	067	811					
		STD	0200	-0192	3456	2784	0002547	0083	14431	724												
		STD	0250	-0209	3458	2786	0002315	0095	14431	713												
	037	OBS	T0295	-0214	34615	2789			14437	703	230				306	069	810					
		STD	0300	-0214	3462	2790	0001963	0106	14438	704												
	037	OBS	T0319	-0213	34637	2791			14442	712	231				301	071	808					

REFERENCE CITY CODE	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DRIFT DIRECTION	MARSEN SOURCE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				CLOUD CODES	WEA- THER CODE	NOCC STATION NUMBER	
					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE				AMT
					WATER COLOR CODE	TRANS. (M)	WIND DIR.	SPEED OR FORCE	BARO- METER (mba)														
318037	GL	75445S	057479W	557	57	02	10	060	1968		007	0433	04	00	0	X			X1	03		0010	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- TER CODE	CLOUD CODES	NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER				SEA	TYPE
318037	GL		75445S	057479W	557	57	02	10 060	1968		007	0400	04	00	0	X		X1 6 7	0011		
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOP CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mbs)	DRY BULB	WET BULB	VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
								15	S15	015	-109	7	11								

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	SCC
		STD	0000	-0166	3394	2733	0007531	0000	14401	976							
		OBS	0000	-0166	33935	2733			14401	976	104		016	088	054	841	
073		STD	0010	-0165	3394	2733	0007520	0008	14403	980							
		OBS	0010	-0165	33936	2733			14403	980	109		015	081	051	843	
		STD	0020	-0165	3394	2733	0007506	0015	14405	977							
		OBS	0026	-0165	33937	2733			14406	975	117		012	074	051	843	
073		STD	0030	-0164	3400	2738	0007019	0022	14408	946							
		STD	0050	-0156	3426	2759	0005034	0034	14419	834							
		OBS	0052	-0155	34280	2761			14420	825	189		011	223	070	823	
		STD	0075	-0166	3438	2769	0004071	0046	14420	766							
		OBS	0078	-0167	34389	2770			14420	760	211		008	258	069	820	
		STD	0100	-0178	3448	2778	0003258	0055	14419	728							
		OBS	0104	-0179	34489	2778			14420	723	220		012	292	073	811	
		STD	0125	-0182	3452	2781	0002926	0063	14422	706							
		STD	0150	-0184	3455	2783	0002676	0070	14426	694							
		OBS	0156	-0185	34560	2784			14427	692	227		010	324	077	810	
		STD	0200	-0189	3458	2786	0002402	0082	14432	698							
		OBS	0207	-0190	34586	2787			14433	699	222		010	300	075	810	
		STD	0250	-0193	3460	2788	0002207	0094	14439	699							
		STD	0300	-0197	3462	2789	0002043	0104	14446	699							
		OBS	0310	-0198	34619	2789			14447	699	225		006	306	073	809	
073		OBS	0354	-0197	34625	2790			14455	701	219		010	303	078	807	
073		OBS	0394	-0199	34636	2791			14461	695	234		025	330	074	806	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			CLOUD CODES	NODC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER			SEA	TFL
318037	GL		73310S	060034W	558	30	02	11 090	1968		009	0603	05	00	0	X		X1 0 3	0012	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS		
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbs)	DRY BULB	WET BULB								
						DT	SD	19	S29	074	-088		7	14						

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	SCC
		STD	0000	-0193	3400	2739	0006986	0000	14389								
		OBS	0000	-0193	33998	2739			14389								
		STD	0010	-0190	3425	2759	0005026	0006	14396								
		OBS	0010	-0190	34253	2759			14396								
		STD	0020	-0191	3429	2762	0004748	0011	14397								
		OBS	0020	-0191	34288	2762			14397								
		STD	0030	-0191	3433	2766	0004434	0015	14400								
		OBS	0030	-0191	34328	2766			14400								
		STD	0050	-0190	3437	2769	0004078	0024	14404								
		OBS	0050	-0190	34373	2769			14404								
		STD	0075	-0190	3441	2772	0003756	0034	14409								
		OBS	0075	-0190	34413	2772			14409								
		STD	0100	-0190	3444	2775	0003510	0043	14413								
		OBS	0100	-0190	34443	2775			14413								
		STD	0125	-0190	3446	2777	0003341	0051	14418								
		OBS	0125	-0190	34463	2777			14418								
		STD	0150	-0190	3450	2780	0003019	0059	14422								
		OBS	0150	-0190	34503	2780			14422								
		STD	0200	-0190	3455	2784	0002606	0073	14431								
		OBS	0200	-0190	34553	2784			14431								
		STD	0250	-0192	3467	2793	0001691	0084	14440								
		OBS	0250	-0192	34668	2793			14440								
		STD	0300	-0193	3472	2798	0001238	0092	14449								
		OBS	0300	-0193	34723	2798			14449								
		STD	0400	-0193	3479	2803	0000685	0101	14467								
		OBS	0400	-0193	34788	2803			14467								
		OBS	0456	-0192	34803	2804			14477								

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DIR. METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
						10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT	
318037		GL	74229S	059534W	557	49	02	11	180	1968		010		0604	05	00	0	X		X1	03		0013	
						WATER		WIND		AIR TEMP. °C				VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB												
						DT	SD	21	S08	075		-085	7					18						
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot dl/l$	TOTAL-P $\mu g \cdot dl/l$	NO ₂ -N $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	SiO ₄ -Si $\mu g \cdot dl/l$	pH	S C							
185		STD	0000	-0191	3450	2779	0003147	0000	14397															
		OBS	0000	-0191	34498	2779			14397															
		STD	0010	-0191	3450	2779	0003141	0003	14399															
		OBS	0010	-0191	34498	2779			14399															
		STD	0020	-0191	3451	2780	0003066	0006	14400															
		OBS	0020	-0191	34507	2780			14400															
		OBS	0025	-0191	34509	2780			14401															
		STD	0030	-0191	3451	2780	0003044	0009	14402															
		OBS	0030	-0191	34509	2780			14402															
		OBS	0040	-0191	34511	2780			14404															
		STD	0050	-0190	3452	2781	0002981	0015	14406															
		OBS	0050	-0190	34516	2781			14406															
		STD	0075	-0188	3461	2788	0002265	0022	14412															
		OBS	0075	-0188	34608	2788			14412															
		STD	0100	-0190	3468	2794	0001700	0027	14417															
		OBS	0100	-0190	34679	2794			14417															
		STD	0125	-0191	3471	2797	0001453	0031	14421															
		OBS	0125	-0191	34709	2797			14421															
		STD	0150	-0191	3473	2798	0001278	0034	14425															
		OBS	0150	-0191	34730	2798			14425															
	STD	0200	-0191	3477	2801	0000958	0040	14434																
	OBS	0200	-0191	34768	2801			14434																
	STD	0250	-0191	3479	2803	0000769	0044	14443																
	OBS	0250	-0191	34789	2803			14443																
	STD	0300	-0191	3480	2804	0000657	0048	14451																
	OBS	0300	-0191	34800	2804			14451																
	STD	0400	-0191	3483	2806	0000395	0053	14468																
	OBS	0400	-0191	34827	2806			14468																
	OBS	0480	-0191	34838	2807			14482																
	STD	0500	-0191	3484	2807	0000256	0056	14485																
	OBS	0500	-0191	34838	2807			14485																
	OBS	0542	-0191	34838	2807			14492																

REFERENCE		SHIP CODE	LATITUDE *	LONGITUDE * 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	ID. NO.					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318037		GL	74229S	059534W	557	49	02	11	180	1968		010		0604	06	00	0	X		X1	67		0014
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mba)	DRY BULB	WET BULB											
								21	S08	075		-085	7	13									
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot dl/l$	TOTAL-P $\mu g \cdot dl/l$	NO ₂ -N $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	SiO ₄ -Si $\mu g \cdot dl/l$	pH	S C						
		STD	0000	-0186	3458	2786	0002498	0000	14401	789													
176		OBS	0000	-0186	34584	2786			14401	789	202			027	249	068	830						
		STD	0010	-0188	3458	2786	0002503	0003	14401	791													
176		OBS	0010	-0188	34582	2786			14401	791	200			048	270	067	823						
		STD	0020	-0189	3458	2786	0002503	0005	14403	792													
176		OBS	0026	-0189	34580	2786			14403	792	211			005	308	068	826						
		STD	0030	-0189	3458	2786	0002504	0008	14404	796													
		STD	0050	-0189	3458	2786	0002484	0012	14407	813													
176		OBS	0052	-0189	34581	2786			14408	815	199			005	255	068	825						
		STD	0075	-0188	3458	2786	0002464	0019	14412	795													
176		OBS	0077	-0188	34582	2786			14412	792	201			007	261	068	823						
		STD	0100	-0191	3470	2796	0001537	0024	14417	728													
176		OBS	0103	-0191	34706	2796			14417	722	224			008	310	071	821						
		STD	0125	-0191	3473	2798	0001292	0027	14421	714													
		STD	0150	-0191	3475	2800	0001124	0030	14425	707													
176		OBS	0156	-0191	34756	2800			14427	706	233			005	308	071	818						
		STD	0200	-0191	3478	2802	0000897	0035	14434	700													
176		OBS	0206	-0191	34779	2802			14435	699	229			003	316	072	809						
		STD	0250	-0191	3480	2804	0000684	0039	14443	700													
		STD	0300	-0192	3482	2806	0000501	0042	14451	701													
176		OBS	0307	-0192	34822	2806			14452	701	226			002	304	072	815						
		STD	0400	-0190	3461	2805	0000527	0047	14468	706													
176		OBS	0411	-0190	3486P	2809P			706	235			002	300	073	811							
		STD	0500	-0189	3480	2804	0000583	0053	14485	710													
176		OBS	0514	-0189	34794	2803			14488	710	224			032	330	072	809						
176		OBS	0540	-0189	34817	2805			14492	708	219			008	278	071	819						
176		OBS	0566	-0190	34817	2805			14496	686	224			009	354	068	820						

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIP	HGT	PER		SEA	TYPE	
318037	GL	74010S	054455W	557	44	02	12 120	1968		011		0459	04	00	0	X		X1	6 7	0015
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
				COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE		DRY BULB									WET BULB
									00 500		022		-043 7 11							

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C
		STD	0000	-0178	3428	2761	0004860	0000	14400	722							
129		OBS	0000	-0178	34279	2761			14400	722	222			287	070	811	
		STD	0010	-0178	3427	2761	0004900	0005	14402	734							
129		OBS	0010	-0178	34273	2761			14402	734	228		011	284	070	804	
		STD	0020	-0168	3443	2773	0003713	0009	14410	733							
129		OBS	0026	-0163	34500	2779			14415	732	242		005	312	072	807	
		STD	0030	-0161	3451	2780	0003114	0013	14417	714							
		STD	0050	-0148	3457	2784	0002680	0018	14427	657							
129		OBS	0052	-0147	34573	2784			14427	654	243		005	323	080	807	
		STD	0075	-0173	3461	2788	0002289	0025	14420	666							
129		OBS	0078	-0175	34616	2789			14419	669	246		005	313	078	804	
		STD	0100	-0182	3465	2792	0001944	0030	14420	704							
129		OBS	0104	-0183	34651	2792			14420	708	237		009	309	070	808	
		STD	0125	-0185	3466	2792	0001844	0035	14423	699							
		STD	0150	-0188	3466	2792	0001821	0039	14425	693							
129		OBS	0156	-0189	34666	2793			14426	692	245			359	072	807	
		STD	0200	-0188	3467	2793	0001716	0048	14434	695							
129		OBS	0208	-0188	34675	2794			14435	695	243		017	321	071	802	
		STD	0250	-0188	3468	2794	0001618	0056	14442	694							
		STD	0300	-0189	3468	2794	0001557	0064	14450	693							
129		OBS	0312	-0189	34684	2794			14452	693	237			336	072	808	
		STD	0400	-0194	3475	2800	0000971	0077	14466	713							
129		OBS	0416	-0195	34770	2802			14468	717	236		000	288	070	811	
129		OBS	T0432	-0194	34786	2803			14471	709	235		009	280	065	807	

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DEPTH IN METERS	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318037	GL		74010S	054455W	557	44	02	12	150	1968		011		0459	04	00	0	X		X1	0	3	0016		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE		DRY BULB		WET BULB																
DT		SO		09	509		019		-038		7	16													

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S C
		STD	0000	-0182	3425	2759	0005050	0000	14398								
147		OBS	0000	-0182	34253	2759			14398								
		STD	0010	-0182	3435	2767	0004284	0005	14401								
		OBS	0010	-0182	34352	2767			14401								
		STD	0020	-0151	3449	2777	0003338	0008	14419								
		OBS	0020	-0151	34485	2777			14419								
		STD	0030	-0140	3455	2782	0002906	0012	14427								
		OBS	0030	-0140	34545	2782			14427								
		STD	0050	-0169	3459	2786	0002459	0017	14417								
		OBS	0050	-0169	34591	2786			14417								
		STD	0075	-0183	3462	2789	0002201	0023	14415								
		OBS	0075	-0183	34618	2789			14415								
		STD	0100	-0188	3463	2790	0002058	0028	14417								
		OBS	0100	-0188	34633	2790			14417								
		STD	0125	-0189	3464	2791	0002002	0033	14421								
		OBS	0125	-0189	34638	2791			14421								
		STD	0150	-0189	3465	2792	0001911	0038	14425								
		OBS	0150	-0189	34648	2792			14425								
		STD	0200	-0189	3465	2792	0001844	0047	14433								
		OBS	0200	-0189	34653	2792			14433								
		STD	0250	-0189	3466	2792	0001776	0057	14442								
		OBS	0250	-0189	34658	2792			14442								
		STD	0300	-0190	3467	2793	0001668	0065	14450								
		OBS	0300	-0190	34668	2793			14450								
		OBS	0328	-0191	34683	2794			14454								
		OBS	0332	-0198	34688	2795			14452								
		STD	0400	-0195	3477	2802	0000793	0077	14465								
		OBS	0400	-0195	34773	2802			14465								
		OBS	0418	-0195	34773	2802			14468								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS- DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE
318037	GL		73230S	052180W	557	32	02	13	030	1968	012	0421	04	00	0	X		X1	0	3		0017
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB										
						DT	SD	00	500	998		-055	7	19								
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C				
		STD	0000	-0163	3425	2759	0005087		0000	14397												
	021	OBS	0000	-0183	34248	2759				14397												
		STD	0010	-0178	3430	2763	0004708		0005	14402												
		OBS	0010	-0178	34298	2763				14402												
	002	OBS	0016	-0170	34363	2768				14408												
		STD	0020	-0172	3438	2770	0004064		0009	14408												
		OBS	0020	-0172	34383	2770				14408												
		STD	0030	-0172	3442	2773	0003751		0013	14410												
		OBS	0030	-0172	34423	2773				14410												
		STD	0050	-0175	3447	2777	0003348		0020	14413												
		OBS	0050	-0175	34473	2777				14413												
		OBS	0056	-0171	34485	2778				14416												
		OBS	0064	-0173	34496	2779				14416												
		STD	0075	-0162	3451	2779	0003102		0028	14423												
		OBS	0075	-0162	34508	2779				14423												
		OBS	0096	-0147	34530	2781				14434												
		STD	0100	-0159	3454	2782	0002875		0036	14429												
		OBS	0100	-0159	34537	2782				14429												
		STD	0125	-0140	3455	2782	0002824		0043	14443												
		OBS	0125	-0140	34550	2782				14443												
		OBS	0137	-0133	34558	2783				14448												
		STD	0150	-0159	3457	2784	0002597		0050	14438												
		OBS	0150	-0159	34570	2784				14438												
		OBS	0163	-0157	34576	2785				14441												
		STD	0200	-0183	3463	2790	0002053		0061	14436												
		OBS	0200	-0183	34628	2790				14436												
		STD	0250	-0187	3467	2793	0001714		0071	14443												
		OBS	0250	-0187	34667	2793				14443												
		STD	0300	-0188	3468	2794	0001575		0079	14451												
		OBS	0300	-0188	34681	2794				14451												
		STD	0400	-0191	3473	2798	0001157		0093	14467												
		OBS	0400	-0191	34727	2798				14467												

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
318037	GL	752675	026326W	554	56	02	15	150	1968		013	0507	05	00	0	X		X1	0	3	0018
					WATER		WIND		BARO- METER	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mba)	DRY BULB	WET BULB										
					DT	SD	07	510	978		-068	7	18								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t °		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C		
		STD	0000	-0099	3375	2716		0009158		0000	14430										
141		OBS	0000	-0099	33748	2716					14430										
		STD	0010	-0086	3378	2718		0008930		0009	14438										
		OBS	0010	-0086	33783	2718					14438										
		STD	0020	-0061	3383	2721		0008675		0018	14452										
		OBS	0020	-0061	33828	2721					14452										
		OBS	0025	-0050	33943	2730					14459										
		STD	0030	-0056	3401	2735		0007315		0026	14458										
		OBS	0030	-0056	34008	2735					14458										
		OBS	0032	-0061	34040	2738					14457										
		OBS	0040	-0062	34083	2742					14458										
		OBS	0048	-0060	34114	2744					14461										
		STD	0050	-0071	3412	2745		0006362		0040	14456										
		OBS	0050	-0071	34124	2745					14456										
		STD	0075	-0186	3426	2760		0004955		0054	14408										
		OBS	0075	-0186	34258	2760					14408										
		STD	0100	-0188	3429	2763		0004665		0066	14412										
		OBS	0100	-0188	34293	2763					14412										
		STD	0125	-0188	3430	2763		0004573		0077	14416										
		OBS	0125	-0168	34303	2763					14416										
		STD	0150	-0189	3433	2766		0004355		0088	14420										
		OBS	0150	-0189	34329	2766					14420										
		STD	0200	-0189	3436	2768		0004094		0110	14429										
		OBS	0200	-0189	34359	2768					14429										
		STD	0250	-0189	3437	2769		0003955		0130	14438										
		OBS	0250	-0189	34373	2769					14438										
		STD	0300	-0190	3439	2770		0003814		0149	14446										
		OBS	0300	-0190	34387	2770					14446										
		STD	0400	-0192	3441	2773		0003547		0186	14462										
		OBS	0400	-0192	34413	2773					14462										
		OBS	0480	-0190	34418	2773					14476										

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
							10"	1"	M.O.	OAT	HR. 1/10	CRUISE NO.	STATION NUMBER		DIR.	HGT	PER	SEA	TYPE	AMT	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S CODE
186		STD	0000	-0084	3381	2720	0008757	0000	14438	847							
		OBS	0000	-0084	33807	2720			14438	847	131		012	149	065	833	
		STD	0010	-0085	3380	2720	0008788	0009	14439	838							
186		OBS	0010	-0085	33802	2720			14439	838	141		006	149	064	835	
		STD	0020	-0070	3383	2721	0008625	0017	14448	855							
186		OBS	0025	-0064	33855	2723			14452	861	158		006	150	064	827	
		STD	0030	-0061	3388	2725	0008274	0026	14454	860							
		STD	0050	-0049	3399	2734	0007477	0042	14465	855							
186		OBS	0051	-0048	33997	2734			14465	855	137		008	148	065	834	
		STD	0075	-0048	3416	2747	0006175	0059	14472	865							
186		OBS	0076	-0049	34161	2747			14471	865	155		005	154	063	835	
		STD	0100	-0122	3425	2757	0005191	0073	14443	819							
186		OBS	0101	-0124	34252	2758			14442	817	175		007	223	069	823	
		STD	0125	-0164	3428	2761	0004838	0085	14427	783							
		STD	0150	-0190	3430	2763	0004559	0097	14420	758							
186		OBS	0152	-0191					757	236			005	293	070		
		STD	0200	-0189	3435	2768	0004132	0119	14429	745							
186		OBS	0203	-0189	34357	2768			14430	744	215		009	298	072	818	
		STD	0250	-0188	3432	2764	0004401	0140	14437	744							
186		OBS	0253	-0188	34312	2764			14438	744	221		009	305	073	813	
		STD	0300	-0187	3439	2771	0003800	0161	14447	727							
186		OBS	0304	-0187	34396	2771			14448	726	210		025	317	072	814	
		STD	0400	-0194	3441	2772	0003565	0198	14461	734							
186		OBS	T0408	-0194	34413	2773			14462	735	220		005	309	071	813	
186		OBS	0457	-0194	34423	2773			14471	733	228		015	287	069	810	
186		OBS	T0478	-0194	34437	2775			14474	733	226		010	302	070	811	
186		OBS	T0499	-0193	34427	2774			14478	736	234		005	312	066	811	

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
							10"	1"	M.O.	OAT	HR. 1/10	CRUISE NO.	STATION NUMBER		DIR.	HGT	PER	SEA	TYPE	AMT	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S CODE
159		STD	0000	-0019	3412	2743	0006603	0000	14472								
		OBS	0000	-0019	34123	2743			14472								
		STD	0010	-0022	3412	2743	0006587	0007	14472								
		OBS	0010	-0022	34123	2743			14472								
		STD	0020	-0030	3414	2745	0006435	0013	14471								
		OBS	0020	-0030	34138	2745			14471								
		STD	0030	-0097	3420	2752	0005713	0019	14442								
		OBS	0030	-0097	34197	2752			14442								
		OBS	0035	-0104	34223	2755			14440								
		OBS	0040	-0113	34241	2756			14437								
		STD	0050	-0134	3427	2759	0005053	0030	14429								
		OBS	0050	-0134	34266	2759			14429								
		OBS	0054	-0141	34288	2761			14427								
		STD	0075	-0162	3433	2765	0004443	0042	14421								
		OBS	0075	-0162	34333	2765			14421								
		STD	0100	-0172	3437	2769	0004094	0052	14421								
	OBS	0100	-0172	34373	2769			14421									
	STD	0125	-0175	3438	2770	0003995	0063	14424									
	OBS	0125	-0175	34383	2770			14424									
	STD	0150	-0179	3440	2771	0003854	0072	14426									
	OBS	0150	-0179	34398	2771			14426									
	OBS	0194	-0179	34418	2773			14434									

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S			DEPTH BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOBC STATION NUMBER
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER				DIR.	HGT	PER	SEA		TYPE	AMT	
					10"	1"	MO	DAY	HR./10			CRUISE NO.	STATION NUMBER										
318037	GL	76142S	033489W	555	63	02	17	000	1968		015		0768	06		2	2		X7	0	3		0021
					WATER		WIND		AIR TEMP. °C														
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO- METER (mb)	DRY BULB		WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					DT	SO	07	S20	849	-010		4	15										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t °		Σ Δ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH						
		STD	0000	-0048	3399	2733	0007517		0000	14457													
015		OBS	0000	-0048	33987	2733	0007517			14457													
		STD	0010	-0048	3399	2734	0007484		0008	14459													
		OBS	0010	-0048	33991	2734	0007484			14459													
002		OBS	0014	-0046	34038	2737	0007484			14461													
		STD	0020	-0091	3417	2750	0005945		0014	14443													
		OBS	0025	-0121	34253	2758	0005945			14431													
		STD	0030	-0145	3433	2765	0004539		0019	14421													
		OBS	0040	-0173	34418	2772	0004539			14411													
		STD	0050	-0174	3443	2773	0003719		0028	14412													
		OBS	0050	-0174	34425	2773	0003719			14412													
		STD	0075	-0175	3443	2774	0003641		0037	14416													
		OBS	0075	-0175	34433	2774	0003641			14416													
		STD	0100	-0175	3444	2775	0003542		0046	14420													
		OBS	0100	-0175	34444	2775	0003542			14420													
		STD	0125	-0173	3446	2776	0003410		0055	14426													
		STD	0150	-0172	3448	2777	0003284		0063	14431													
		OBS	0150	-0172	34475	2777	0003284			14431													
		STD	0200	-0172	3449	2778	0003134		0079	14439													
		OBS	0200	-0172	34491	2778	0003134			14439													
		STD	0250	-0174	3451	2780	0002954		0094	14447													
		STD	0300	-0177	3454	2782	0002710		0108	14454													
		OBS	0300	-0177	34537	2782	0002710			14454													
		STD	0400	-0183	3458	2786	0002290		0133	14468													
		OBS	0400	-0183	34582	2786	0002290			14468													
		STD	0500	-0195	3464	2791	0001785		0154	14480													
		OBS	0500	-0195	34635	2791	0001785			14480													
		OBS	0560	-0203	34644	2792	0001785			14487													
		OBS	0592	-0207	34652	2792	0001785			14490													

REFERENCE CTRY CODE	IO. HO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCHES	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOBC STATION NUMBER		
						10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGH	PER	SEA		TYPE	AMT			
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)														AIR TEMP. °C	DRY RULE
318037		GL	76142S	033489W		555	63	02	17	030	1968		015		0768	05	00	0	X		X7	7	8		0022
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS										
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY RULE	WET RULE													
																	-018	2	14						
MESSAGE TIME HR. 1/10		CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-210°		Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₃ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH						
			STD	0000	-0056	3402	2736		0007210		0000	14454	869												
	028		OBS	0000	-0056	34023	2736		0007210			14454	869	111			013	164	040	832					
	028		OBS	0007	-0057	34024	2737		0006846			14454	861	134			003	145	041	831					
			STD	0010	-0056	3407	2740		0006846		0007	14456	858												
	028		OBS	0018	-0054	34186	2750		0006846			14460	841	147			008	144	044	829					
			STD	0020	-0062	3420	2751		0005826		0013	14457	830												
			STD	0030	-0098	3428	2759		0005074		0019	14443	784												
	028		OBS	0037	-0121	34327	2764		0005074			14434	760	196			012	248	057	815					
			STD	0050	-0162	3440	2771		0003943		0028	14418	739												
	028		OBS	0056	-0174	34417	2772		0003943			14413	732	220			015	194	065	814					
	028		OBS	0073	-0183	34430	2774		0003943			14412	724	220			004	246	065	815					
			STD	0075	-0183	3443	2774		0003643		0037	14412	724												
			STD	0100	-0183	3443	2774		0003612		0046	14416	718												
	028		OBS	0108	-0183	34432	2774		0003612			14418	716	229			009	255	067	810					
			STD	0125	-0181	3444	2774		0003541		0055	14422	726												
	028		OBS	0141	-0179	34444	2775		0003541			14425	732	235			000	276	063	814					
			STD	0150	-0179	3445	2775		0003487		0064	14427	729												
			STD	0200	-0177	3446	2776		0003363		0081	14436	715												
	028		OBS	0205	-0177	34460	2776		0003363			14437	713	212			003	260	065	810					
	028		OBS	0225	-0193	34482	2778		0003363			14433	721	220			004	222	064	814					
			STD	0250	-0191	3449	2779		0003054		0097	14438	720												
			STD	0300	-0188	3451	2780		0002905		0112	14449	719												
	028		OBS	0350	-0184	34524	2781		0002905			14459	718	216			000	236	064	812					
			STD	0400	-0192	3457	2785		0002350		0138	14464	717												
	028		OBS	T0425	-0195	34583	2786		0002350			14467	716	219			000	229	063	812					
	028		OBS	T0477	-0199	34606	2788		0002350			14474	715	221			004	260	063	811					
			STD	0500	-0199	3462	2789		0001885		0160	14478	712												
	028		OBS	T0518	-0199	34624	2790		0001885			14481	709	236			000	221	061	808					

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DIN INCHES	MARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER			
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT		
318037	GL		745065	039049W		555	49	02	17	180	1968		016	0384	04	00	0	X		X2	6	8		0023	
						WATER		WIND		AIR TEMP. °C		BARO- METER (mb)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB	VIS. CODE											
								09		510		795		-015		7		11							
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ D DYN. M. $\times 10^3$		SOUND VELOCITY		O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	Si O ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S CC				
		STD	0000	-0145	3377	2719		0008882		0000		14408		808											
177		OBS	0000	-0145	33766	2719						14408		808	154		016	184	043	826					
		STD	0010	-0147	3376	2718		0008948		0009		14409		828											
177		OBS	0010	-0147	33756	2718						14409		828	168		012	232	043	826					
		STD	0020	-0147	3377	2719		0008857		0018		14411		828											
177		OBS	0025	-0147	33772	2719						14412		828	176		012	163	043	824					
		STD	0030	-0150	3392	2731		0007669		0026		14413		815											
		STD	0050	-0161	3433	2765		0004483		0038		14417		769											
177		OBS	0051	-0162	34338	2766						14417		767	230		010	216	058	816					
		STD	0075	-0175	3440	2771		0003908		0049		14415		728											
177		OBS	0076	-0176	34400	2771						14415		727	250		007	192	069	813					
		STD	0100	-0181	3441	2772		0003803		0058		14417		721											
177		OBS	0102	-0181	34409	2772						14417		720	240		026	215	070	811					
		STD	0125	-0177	3442	2773		0003720		0068		14423		718											
		STD	0150	-0173	3443	2773		0003640		0077		14429		715											
177		OBS	T0152	-0173	34429	2773						14430		715	263		003	278	071	814					
		STD	0200	-0168	3445	2775		0003461		0095		14441		702											
177		OBS	0204	-0167	34452	2775						14442		701	249		TRC	271	073	813					
		STD	0250	-0162	3447	2777		0003269		0112		14452		697											
		STD	0300	-0157	3450	2778		0003086		0127		14463		692											
177		OBS	0306	-0156	34500	2779						14464		691	238		TRC	220	074	815					
177		OBS	T0334	-0146	34554	2783						14474		671	261		005	259	077	812					
177		OBS	T0356	-0146	34564	2784						14478		674	251		004	218	077	812					

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INCHES	MARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOQC STATION NUMBER		
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT			
						WATER	WIND	BARO- METER	AIR TEMP. °C	VIS. CODE		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
318037		GL	740245	040372W		556	40	02	18	030	1968		017	0695	06	00	0	X		X7	7	8		0024
								18	512	814		-011	6	13										
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S CC							
		STD	0000	-0150	3380	2722	0008577	0000	14407	844														
045		OBS	0000	-0150	33804	2722			14407	844	131		025	187	026	820								
		STD	0010	-0150	3380	2722	0008571	0009	14408	850														
045		OBS	0010	-0150	33804	2722			14408	850	129		020	142	030	818								
		STD	0020	-0155	3387	2728	0008045	0017	14408	850														
045		OBS	0024	-0156	33907	2731			14409	847	155		017	201	027	816								
		STD	0030	-0156	3400	2738	0007039	0024	14411	829														
045		OBS	0049	-0156	34226	2756			14418	781	191		013	133	050	806								
		STD	0050	-0157	3423	2757	0005261	0037	14418	779														
045		OBS	0073	-0167	34324	2765			14418	744	193		010	124	071	805								
		STD	0075	-0168	3433	2765	0004449	0049	14418	743														
045		OBS	0098	-0173	34367	2768			14420	735	200		023	198		806								
		STD	0100	-0173	3437	2769	0004114	0060	14420	734														
		STD	0125	-0175	3439	2770	0003942	0070	14424	723														
045		OBS	T0148	-0176	34400	2771			14427	714	188		010	165	080	805								
		STD	0150	-0176	3440	2771	0003840	0079	14428	713														
045		OBS	0197	-0170	34414	2772			14438	699	204		007		072	805								
		STD	0200	-0169	3442	2772	0003723	0098	14439	699														
		STD	0250	-0160	3443	2773	0003589	0117	14452	691														
045		OBS	0297	-0151	34449	2774			14464	681	210		005	218	070	804								
		STD	0300	-0150	3445	2774	0003468	0134	14465	681														
045		OBS	0397	-0121	34501	2778			14496	651	210		003		078	803								
		STD	0400	-0115	3451	2778	0003110	0167	14499	645														
045		OBS	0496	-0015	34622	2783			14563	540	217		005	216	089	797								
		STD	0500	-0022	3462	2783	0002736	0196	14561	544														
045		OBS	0572	-0070	34616	2785			14550	576	211		006	253	095	801								
045		OBS	T0597	-0050	34627	2785			14564	572	223		004	083	800									

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT NO.	MARDEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
									CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT	

318037	GL		724605	042455W		556	22 02 18 180	1968		018A	1926	19	00	0	X		X2	6	8	0025
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			15	509	787		-013	7	17
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MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta O$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \text{dl/l}$	TOTAL-P $\mu g - \text{dl/l}$	NO ₂ -N $\mu g - \text{dl/l}$	NO ₃ -N $\mu g - \text{dl/l}$	SIO ₄ -Si $\mu g - \text{dl/l}$	pH	PCO ₂
		STD	0000	-0156	3362	2707	0009991	0000	14401	807							
172		OBS	0000	-0156	33618	2707			14401	807	177			023	198	059	808
		STD	0010	-0158	3362	2707	0009994	0010	14402	806							
172		OBS	0010	-0158	33616	2707			14402	806	174			021	206	056	810
		STD	0020	-0131	3393	2732	0007652	0019	14421	826							
172		OBS	0025	-0125	34061	2742			14426	828	169			016	190	050	811
		STD	0030	-0134	3416	2750	0005875	0026	14424	813							
		STD	0050	-0162	3442	2772	0003820	0035	14418	763							
172		OBS	0050	-0162	34416	2772			14418	763	195			016	220	063	804
		STD	0075	-0177	3443	2773	0003689	0045	14415	720							
172		OBS	0075	-0177	34426	2773			14415	720	215			017	228	071	804
172		OBS	0099	-0179	34426	2773			14418	715	214			011	176	073	794
		STD	0100	-0179	3443	2774	0003638	0054	14418	715							
		STD	0125	-0180	3443	2774	0003621	0063	14422	709							
172		OBS	0149	-0181	34432	2774			14426	704	217			005	255	072	794
		STD	0150	-0181	3443	2774	0003588	0072	14426	704							
172		OBS	T0199	-0177	34440	2774			14436	697	219			015	276	073	803
		STD	0200	-0177	3444	2774	0003509	0090	14436	697							
		STD	0250	-0172	3446	2775	0003381	0107	14447	689							
		STD	0300	-0167	3447	2776	0003263	0123	14458	681							
172		OBS	0300	-0167	34469	2776			14458	681	216			003	224	074	796
		STD	0400	-0095	3454	2780	0002973	0155	14509	659							
		STD	0500	-0038	3459	2781	0002869	0184	14553	635							
		STD	0600	0005	3463	2783	0002822	0212	14590	607							
		STD	0700	0034	3466	2783	0002796	0240	14620	576							
148		OBS	T0771	0045	34676	2784			14637	552	223			007	250	102	790
		STD	0800	0044	3468	2784	0002725	0268	14642	536							
		STD	0900	0042	3468	2785	0002716	0295	14657	495							
148		OBS	0964	0039	34681	2785			14667	479	231			006	264	103	790
		STD	1000	0039	3468	2785	0002698	0322	14673	481							
		STD	1100	0035	3468	2785	0002670	0349	14688	486							
		STD	1200	0025	3468	2786	0002590	0375	14700	492							
148		OBS	T1210	0024	34679	2785			14702	492	232			009	230	103	790
		STD	1300	0006	3467	2786	0002504	0401	14708	513							
		STD	1400	-0013	3466	2786	0002413	0426	14717	535							
148		OBS	1457	-0022	34653	2786			14722	546	229			013	288	102	790
		STD	1500	-0027	3465	2786	0002335	0449	14727	553							
		STD	1750	-0057	3465	2787	0002060	0504	14756	591							
148		OBS	1757	-0058					592	229				008	221	101	792
148		OBS	T1784	-0058	34649	2787			14761	576	225			009	227	100	791
148		OBS	1832	-0074	34635	2787			14762	588	222			013	203	098	793
148		OBS	T1869	-0072	34639	2787			14769	588	221			010	243	100	796

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAY DEPTH OF SAMPLS	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTW CODE	ID. NO.					10"	1"	MO DAY HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

WATER				WIND		BARO-	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mb)	DRY BULB	WET BULB					
		20	505	809		-010	7	14			

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SIO ₄ -Si $\mu g - dl/l$	pH	S CODE
		STD	0000	-0155	3361	2707	0010039	0000	14402	806							
017		OBS	0000	-0155	33612	2707			14402	806	195		027	249	058		
		STD	0010	-0157	3361	2707	0010012	0010	14402	824							
017		OBS	0010	-0157	33614	2707			14402	824	188		023	210	058		
		STD	0020	-0131	3396	2734	0007422	0019	14421	824							
017		OBS	0024	-0126	34075	2743			14426	824	179		018	173	049		
		STD	0030	-0141	3419	2753	0005624	0025	14421	796							
017		OBS	0049	-0173	34424	2773			14413	735	229		016	259	070		
		STD	0050	-0173	3442	2773	0003729	0035	14413	734							
017		OBS	0073	-0178	34429	2773			14424	717	226		017	205	073		
		STD	0075	-0178	3443	2774	0003656	0044	14415	717							
017		OBS	0098	-0180	34432	2774			14418	720	243		013	214	073		
		STD	0100	-0180	3443	2774	0003620	0053	14418	720							
		STD	0125	-0180	3444	2774	0003582	0062	14422	714							
017		OBS	0147	-0180	34438	2774			14426	709	235		009	284	072		
		STD	0150	-0180	3444	2774	0003530	0071	14426	708							
017		OBS	T0197	-0177	34444	2775			14436	699	218		016	275	074		
		STD	0200	-0177	3445	2775	0003471	0088	14436	699							
		STD	0250	-0173	3445	2775	0003386	0105	14446	699							
017		OBS	0297	-0169	34462	2776			14456	690	223		011	282	075		
		STD	0300	-0168	3446	2776	0003306	0122	14457	689							
017		OBS	0398	-0133	34494	2777			14490	645	225		020	299	078		
		STD	0400	-0132	3450	2778	0003112	0154	14491	644							
		STD	0500	-0061	3457	2781	0002921	0184	14542	579							
017		OBS	T0500	-0061	34566	2781			14542	579	233		015	299	089		
		STD	0600	0011	3463	2782	0002839	0213	14593	506							
017		OBS	0600	0011	34633	2782			14593	506	241		008	293	098		
		STD	0700	0041	3467	2783	0002812	0242	14624	492							
017		OBS	T0702	0042	34666	2783			14624	492	240		009	233	103		
		STD	0800	0046	3468	2784	0002776	0269	14642	486							
017		OBS	T0807	0046	34676	2784			14644	486	254		009	272	107		

REFERENCE C187 CODE	SHIP IO. NO.	LATITUDE °	LONGITUDE °	DRIFT INCHES	MARS DEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
					10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DR.			HGT	PER	SEA		TYPE	AMT	
318037	GL	71538S	048201W	556	18	02	19	210	1968		019		2044	20	00	0	X		X7	7	8	0027

WATER		WIND		BARO-METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		21	S08	935		-015	6	22	

MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	SIC
		STD	0000	-0160	3384	2725	0008291	0000	14402	810							
205		OBS	0000	-0160	33838	2725			14402	810	168						
		STD	0010	-0163	3384	2725	0008300	0008	14403	815				207	053	811	
205		OBS	0010	-0163	33835	2725			14403	815	172			235	053	812	
		STD	0020	-0164	3427	2760	0004952	0015	14410	775							
205		OBS	0026	-0166	34439	2774			14412	755	205			255	061	812	
		STD	0030	-0169	3444	2774	0003613	0019	14412	744							
		STD	0050	-0179	3446	2776	0003476	0026	14410	708							
205		OBS	0052	-0180	34456	2776			14410	706	220			213	074	805	
		STD	0075	-0179	3446	2776	0003461	0035	14414	709							
205		OBS	0079	-0179	34455	2776			14415	709	225			279	074	804	
		STD	0100	-0177	3446	2776	0003438	0044	14420	707							
205		OBS	0104	-0176	34457	2776			14421	706	227			212	075	805	
		STD	0125	-0174	3447	2777	0003330	0052	14425	693							
		STD	0150	-0173	3448	2777	0003245	0060	14430	679							
205		OBS	0157	-0172	34482	2778			14432	676	225			226	078	796	
		STD	0200	-0151	3449	2778	0003209	0076	14449	661							
205		OBS	T0210	-0146	34495	2778			14453	657	229			232	080	802	
		STD	0250	-0129	3452	2779	0003037	0092	14468	632							
		STD	0300	-0100	3455	2781	0002908	0107	14490	601							
205		OBS	0315	-0089	34558	2781			14498	591	244			219	087	801	
		STD	0400	-0002	3463	2783	0002788	0135	14553	533							
205		OBS	0420	0011	34641	2783			14563	522	246			197	098	795	
		STD	0500	0035	3467	2784	0002720	0163	14587	488							
205		OBS	0526	0038	34673	2784			14593	483	243			245	103	796	
		STD	0600	0032	3467	2784	0002703	0190	14603	489							
205		OBS	0632	0031	34669	2784			14607	490	246			231	103	796	
		STD	0700	0034	3468	2785	0002680	0217	14620	488							
205		OBS	T0740	0035	34678	2785			14627	487	245			220	109	789	
		STD	0800	0032	3468	2785	0002667	0244	14636	489							
205		OBS	T0847	0030	34674	2785			14643	490	221			256	110	794	
170		OBS	T0863	0023	34679	2786			14643	490	220			266	109	797	
		STD	0900	0022	3468	2786	0002570	0270	14648	493							
		STD	1000	0018	3468	2786	0002554	0295	14663	500							
170		OBS	1060	0015	34676	2786			14672	504	215			274	111	800	
		STD	1100	0013	3468	2786	0002530	0321	14678	506							
		STD	1200	0008	3467	2786	0002503	0346	14693	512							
		STD	1300	0003	3467	2786	0002475	0371	14707	518							
170		OBS	1308	0003	34671	2786			14708	518	214			286	112	800	
		STD	1400	-0000	3467	2786	0002442	0396	14723	520							
		STD	1500	-0006	3467	2786	0002385	0420	14737	525							
170		OBS	1556	-0010	34671	2787			14745	529	224			256	113	800	
		STD	1750	-0027	3466	2787	0002256	0478	14770	544							
170		OBS	1856	-0045	34656	2787			14780	571	215			251	107	799	
170		OBS	1931	-0062	34655	2788			14785	598	218			260	095	801	
170		OBS	T1984	-0072	34634	2787			14789	586	197			250	096	801	
		STD	2000	-0075	3465	2788	0001848	0529	14791	591							
170		OBS	T2003	-0076	34650	2788			14791	592	217			262	094	803	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS. NO.	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THEP CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318037	GL	715655	051039W	557	11	02	20	040	1968		020		1472	13	00	0	X		X7	7	8		0028
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WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOP CODE	TRANS m1	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE			

		19	505	945		-054	6	16	
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MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND SALTY-31P	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PD ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	S CODE
		STD	0000	-0181	3395	2734	0007412	0000	14394	780							
044		OBS	0000	-0181	33946	2734			14394	780	191		016	225	063	811	
		STD	0010	-0181	3395	2735	0007359	0007	14396	791							
044		OBS	0011	-0181	33953	2735			14396	792	163		016	206	062	810	
		STD	0020	-0175	3425	2759	0005078	0014	14404	775							
044		OBS	0027	-0173	34408	2772			14409	763	206		016	246	066	810	
		STD	0030	-0174	3441	2772	0003846	0018	14409	757							
		STD	0050	-0178	3442	2773	0003747	0026	14410	726							
044		OBS	0054	-0179	34422	2773			14411	722	240		018	253	073	803	
		STD	0075	-0181	3442	2773	0003694	0035	14413	721							
044		OBS	0081	-0182	34425	2773			14414	720	242		013	224	073	805	
		STD	0100	-0184	3443	2773	0003649	0044	14416	722							
044		OBS	0107	-0184	34428	2774			14417	722	216		011	286	073	802	
		STD	0125	-0182	3443	2774	0003600	0053	14421	718							
		STD	0150	-0181	3444	2774	0003542	0062	14426	712							
044		OBS	0160	-0180	34440	2774			14428	710	219		007	280	072	804	
		STD	0200	-0179	3445	2775	0003464	0080	14435	703							
044		OBS	T0213	-0178	34447	2775			14438	701	219		009		073	800	
		STD	0250	-0177	3445	2775	0003403	0097	14444	701							
		STD	0300	-0173	3445	2775	0003388	0114	14455	695							
044		OBS	0317	-0170	34457	2776			14459	692	219		008	269	074		
		STD	0400	-0152	3449	2778	0003107	0146	14482	666							
044		OBS	0419	-0143	34496	2778			14489	656	244		007	234	078	800	
		STD	0500	-0086	3455	2780	0002911	0176	14530	596							
044		OBS	0521	-0070	34565	2781			14541	581	227		009	258	085	798	
		STD	0600	-0000	3461	2781	0002940	0206	14587	526							
044		OBS	0623	0014	34626	2782			14598	515	239		006	250	094	795	
		STD	0700	0017	3464	2783	0002831	0234	14612	510							
		STD	0800	0020	3466	2784	0002735	0262	14630	504							
044		OBS	0826	0021	34659	2784			14635	502	243		008	226	101	797	
		STD	0900	0001	3465	2784	0002631	0289	14638	520							
		STD	1000	-0022	3464	2785	0002530	0315	14645	541							
044		OBS	1028	-0028	34637	2785			14647	546	235		012	236	099	796	
		STD	1100	-0039	3464	2785	0002429	0340	14654	557							
		STD	1200	-0055	3463	2786	0002313	0363	14663	572							
044		OBS	T1281	-0067	34631	2786			14671	584	233		012	253	095	794	
		STD	1300	-0077	3463	2786	0002147	0386	14670	591							
044		OBS	T1333	-0098	34622	2787			14666	606	231		006	194	090	799	

REFERENCE	CTRY CODE	IO. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WAVE INDIC	MARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
							10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HT	PER		SEA	TYPE	
318037			GL	71317S	052434W	557	12	02	20	150	1968		021	1777	18	00	0	X			7	8	0029
						WAVE		WIND		BARO- METER		AIR TEMP. °C		VIS		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE		TRANS. (mm)		DIR.		SPEED OF FORCE		WET BULB		DRY BULB							
								16		505		946		-047		6		21					
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S C						
		STD	0000	-0172	3408	2745	0006411	0000	14400	771													
163		OBS	0000	-0172	34079	2745			14400	771	211			024	216	069	816						
		STD	0010	-0180	3408	2745	0006378	0006	14398	781													
163		OBS	0010	-0180	34080	2745			14398	781	202			018	215	068	817						
		STD	0020	-0182	3409	2746	0006290	0013	14399	778													
163		OBS	0025	-0183	34095	2746			14399	775	203			018	220	069	816						
		STD	0030	-0182	3413	2749	0005975	0019	14401	766													
		STD	0050	-0179	3427	2761	0004895	0030	14408	735													
163		OBS	0051	-0179					734	211				021	208	073	815						
		STD	0075	-0180	3440	2771	0003881	0041	14413	714													
163		OBS	0077	-0180					713	220				020	236	071	813						
		STD	0100	-0182	3448	2778	0003247	0050	14418	712													
163		OBS	0102	-0182	34484	2778			14418	712	225			017	252	072	814						
		STD	0125	-0181	3449	2778	0003159	0058	14422	708													
		STD	0150	-0179	3449	2778	0003149	0066	14427	703													
163		OBS	0153	-0179	34491	2779			14428	702	226			012	204	073	813						
		STD	0200	-0177	3449	2778	0003126	0081	14437	697													
163		OBS	0205	-0176	34490	2778			14438	696	220			007	247	073	813						
		STD	0250	-0122	3455	2782	0002835	0096	14472	688													
		STD	0300	-0072	3460	2784	0002656	0110	14504	661													
163		OBS	T0306	-0137P	34606	2787P			656	228				010	219	079	812						
		STD	0400	-0002	3463	2783	0002811	0137	14553	539													
163		OBS	0410	0003	34629	2783			14557	532	234			008	275	091	804						
		STD	0500	0028	3465	2783	0002824	0165	14584	517													
163		OBS	T0513	0030	34652	2783			14587	516	239			009	234	096	804						
145		OBS	T0588	0029	34667	2784			14599	512	231			012	231	102	792						
		STD	0600	0029	3467	2784	0002720	0193	14601	512													
163		OBS	T0616	0028	34662	2784			14603	513	236			011		100	792						
145		OBS	0694	0028	34671	2785			14617	517	216			009	246	103	795						
		STD	0700	0028	3467	2785	0002671	0220	14618	516													
145		OBS	0796	0027	34672	2785			14633	511	212			013	265	106	796						
		STD	0800	0027	3467	2785	0002658	0247	14634	511													
		STD	0900	0024	3467	2785	0002630	0273	14649	513													
145		OBS	0999	0020	34674	2785			14664	515	221			009	239	110	796						
		STD	1000	0020	3467	2785	0002592	0299	14664	515													
		STD	1100	0018	3467	2785	0002577	0325	14680	519													
		STD	1200	0011	3467	2786	0002526	0351	14694	524													
145		OBS	T1254	0006	34673	2786			14701	526	213			012	247	112	797						
		STD	1300	0000	3467	2786	0002454	0375	14706	532													
		STD	1400	-0015	3466	2786	0002397	0400	14716	549													
		STD	1500	-0033	3466	2787	0002234	0423	14724	570													
145		OBS	1505	-0034	34657	2787			14725	571	236			018	229	107	796						
145		OBS	T1690	-0077	34643	2787			14736	622	231			010	233	094	794						
145		OBS	1743	-0096	34641	2788			14737	636	226			010	211	090	796						
		STD	1750	-0099	3464	2788	0001778	0473	14736	636													
145		OBS	T1775	-0113	34634	2788			14734	635	217			014	217	088	799						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSOEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
CTRY CODE	IO. NO.				10°	1°	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	OBSERVATIONS				TYPE	AMT					
					DIR.	HGT	PER	SEA															
318037		GL	71019S	052521W	557	12	02	21	150	1968		022		2312	23	00	0	X			7	8	0030
		WATER COLOR CODE	WIND TRANS. (mi)	DIR.	SPEED OR FORCE	BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
							DRY BULB	WET BULB															
					00	500	978	-011	7	24													
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SiO ₄ -Si $\mu g - dl/l$	pH	S CC					
		STD	0000	-0173	3418	2753	0005655	0000		14401	741												
156		OBS	0000	-0173	34177	2753				14401	741	204				177	073	813					
		STD	0010	-0182	3417	2752	0005705	0006		14398	745												
156		OBS	0010	-0182	34167	2752				14398	745	204				019	212	073					
		STD	0020	-0182	3418	2753	0005621	0011		14400	750												
156		OBS	0025	-0182	34182	2754				14401	751	204				022	238	074					
		STD	0030	-0181	3426	2760	0004981	0017		14403	750												
		STD	0050	-0175	3447	2777	0003370	0025		14412	746												
156		OBS	0051	-0175	34473	2777				14413	746	211				020	259	077					
		STD	0075	-0178	3448	2778	0003272	0033		14415	699												
156		OBS	0076	-0178	34485	2778				14416	698	217				015	272	076					
		STD	0100	-0175	3449	2778	0003196	0041		14421	712												
156		OBS	0103	-0175	34489	2778				14422	713	213				012	269	077					
		STD	0125	-0173	3449	2778	0003174	0049		14426	712												
		STD	0150	-0170	3449	2778	0003151	0057		14432	706												
		STD	0200	-0165	3450	2779	0003109	0073		14442	679												
156		OBS	0204	-0165	34497	2779				14443	676	221				008	258	085					
		STD	0250	-0104	3454	2780	0002984	0088		14480	632												
156		OBS	T0254	-0099	34542	2780				14483	628	219				010	247	092					
		STD	0300	-0048	3458	2781	0002926	0103		14515	578												
156		OBS	0307	-0041	34590	2782				14519	572	246				011	257	100					
		STD	0400	0024	3465	2783	0002797	0132		14565	532												
156		OBS	0409	0027	34651	2783				14568	529	232				017	275	102					
		STD	0500	0027	3466	2784	0002742	0159		14584	511												
156		OBS	0511	0027	34662	2784				14585	510	231				023	239	102					
		STD	0600	0026	3466	2784	0002739	0187		14600	514												
156		OBS	T0615	0026	34660	2784				14602	515	230				018	241	105					
114		OBS	T0628	0026	34661	2784				14604	512	238				015	269	106					
		STD	0700	0028	3467	2784	0002703	0214		14618	510												
156		OBS	T0717	0029	34668	2784				14621	510	230				011		106					
114		OBS	0735	0029	34667	2784				14624	511	235				015	271	110					
114		OBS	0786	0025	34665	2784				14630	512	240				012	258	107					
		STD	0800	0025	3467	2784	0002696	0241		14633	515												
114		OBS	0898	0022	34668	2785				14648	529	252				012	258	108					
		STD	0900	0022	3467	2785	0002652	0268		14648	529												
114		OBS	T0993	0017	34664	2785				14662	529	242				015	285	110					
		STD	1000	0017	3466	2785	0002644	0294		14663	529												
		STD	1100	0013	3466	2785	0002611	0320		14678	530												
		STD	1200	0008	3466	2785	0002576	0346		14692	531												
114		OBS	1245	0006	34663	2785				14699	531	242				009	251	111					
		STD	1300	0002	3466	2785	0002547	0372		14707	534												
		STD	1400	-0005	3466	2785	0002484	0397		14720	539												
		STD	1500	-0012	3466	2786	0002417	0422		14734	544												
114		OBS	T1505	-0012	34658	2786				14735	544	244				013	246	110					
		STD	1750	-0014	3466	2786	0002406	0482		14776	551												
114		OBS	1806	-0016	34655	2786				14784	555	242				009	214	113					
		STD	2000	-0026	3465	2786	0002311	0541		14813	573												
114		OBS	T2117	-0042	34646	2786				14826	588	232				037	235	104					
114		OBS	2265	-0072	34643	2787				14837	612	228				034	252	095					
114		OBS	2310	-0093	34635	2787				14835	634	226				011	244	810					

REFERENCE CTRY CODE	IO. NO.	SHIP CODE	LATITUDE + 1/10	LONGITUDE + 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
						10"	1"	MO	DAY	HR,1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbal)		DRY BULB	WET BULB			VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
318037	GL	70516S	052159W	557	02	02	22	060	1968		023		2561	25	00	0	X		71	7	8		0031

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT INCH	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT PER	SEA		TYPE	AMT			
318037	GL		70569S	050265W		557	00	02	23 060	1968		025	2926	11	00	0	X		73	7	8		0032
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	mbs		DRY BULB	WET BULB										
								10	527	825			-024	6	15								
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	S Δ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PD ₄ -P $\mu g - \text{ol/l}$	TOTAL-P $\mu g - \text{ol/l}$	NO ₂ -N $\mu g - \text{ol/l}$	NO ₃ -N $\mu g - \text{ol/l}$	SiO ₄ -Si $\mu g - \text{ol/l}$	pH	S C C						
		STD	0000	-0184	3408	2745	0006360	0000	14394	744													
070		OBS	0000	-0184	34082	2745			14394	744	205		014	248	080	808							
		STD	0010	-0184	3408	2745	0006369	0006	14396	779													
070		OBS	0011	-0184	34077	2745			14396	781	204		020	175	077	812							
		STD	0020	-0184	3408	2745	0006385	0013	14398	774													
070		OBS	0028	-0184	34076	2745			14399	765	206		016	216	079	807							
		STD	0030	-0183	3412	2749	0006050	0019	14400	761													
		STD	0050	-0173	3443	2773	0003683	0029	14413	728													
070		OBS	0055	-0172	34480	2777			14415	722	213		013	220	077	808							
		STD	0075	-0173	3449	2778	0003210	0037	14418	705													
070		OBS	0083	-0173	34493	2779			14419	699	220		016	210	079	803							
		STD	0100	-0166	3450	2779	0003138	0045	14425	686													
070		OBS	0110	-0163	34501	2779			14429	680	217			205	081	807							
		STD	0125	-0163	3450	2779	0003110	0053	14431	677													
		STD	0150	-0163	3451	2779	0003065	0061	14435	671													
		STD	0200	-0164	3451	2780	0002984	0076	14443	659													
070		OBS	T0222	-0164	34517	2780			14447	654	220		006	183	080	805							
		STD	0250	-0116	3456	2782	0002783	0090	14475	613													
		STD	0300	-0048	3462	2784	0002622	0104	14515	557													
070		OBS	0331	-0018	34640	2785			14535	534	230		010	268	090	792							
		STD	0400	0005	3464	2784	0002732	0131	14557	529													
070		OBS	0441	0013	34645	2783			14567	526	230		020	294	094	798							
		STD	0500	0014	3465	2784	0002729	0158	14577	521													
070		OBS	T0552	0014	34653	2784			14586	517	230		012	232	092	799							
		STD	0600	0016	3466	2784	0002697	0185	14595	513													
070		OBS	0662	-01710	34660	27920			510	233			023	214	097	798							
		STD	0700	0019	3466	2784	0002685	0212	14613	510													
070		OBS	0772	0022	34664	2784			14627	508	235		016		100	798							
		STD	0800	0021	3467	2785	0002659	0239	14631	506													
070		OBS	0883	0018	34670	2785			14644	504	232		008	251	095	797							
		STD	0900	0018	3467	2785	0002604	0265	14646	506													
		STD	1000	0015	3467	2785	0002583	0291	14662	517													
070		OBS	T1001	0015	34665	2785			14662	517	237		007	231	096	795							
		STD	1100	0011	3466	2785	0002595	0317	14677	518													
070		OBS	T1103	0011	34664	2785			14677	518	235		008	272	100	796							

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT INCHES	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
					10'	1'	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT		
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)		DRY BULB	WET BULB			VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
318037	GL	705515	047456W		556	07	02	23	150	1968		026		3142	29	00	0	X		71	7	8		0033
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbs)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS											
							05	524	829		-011	5	27											
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-310?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH								
		STD	0000	-0180	3407	2744		0006453	0000	14396	772													
153	OBS	0000	-0180	34071	2744					14396	772	194		033	230	088	812							
153	OBS	0009	-0181	34070	2744					14397	777	197		022	237	087	804							
	STD	0010	-0181	3407	2744	0006452	0006			14397	777													
	STD	0020	-0181	3407	2745	0006423	0013			14399	774													
153	OBS	0021	-0181	34073	2745					14399	774	190		019	196	087	814							
	STD	0030	-0165	3432	2764	0004560	0018			14412	726													
153	OBS	0039	-0158	34474	2777					14419	692	194		013	172	085	814							
	STD	0050	-0167	3449	2778	0003239	0026			14417	678													
153	OBS	0059	-0173	34496	2779					14415	669	205		020	263	087	805							
	STD	0075	-0174	3450	2779	0003130	0034			14418	667													
	STD	0100	-0175	3450	2779	0003113	0042			14421	662													
153	OBS	0105	-0175	34504	2779					14422	660	202		009	237	087	812							
	STD	0125	-0171	3451	2780	0003002	0050			14427	653													
	STD	0150	-0155	3453	2781	0002938	0057			14439	639													
153	OBS	0155	-0151	34530	2781					14442	636	207		003	228	090	809							
	STD	0200	-0063	3460	2783	0002722	0071			14492	584													
153	OBS	0233	-0021	34627	2784					14517	557	215		003	253	100	807							
	STD	0250	-0015	3463	2784	0002719	0085			14522	551													
	STD	0300	-0002	3464	2784	0002688	0098			14537	536													
153	OBS	T0311	0000	34647	2784					14540	534	217		012	240	104	806							
153	OBS	T0399	0004	34653	2784					14556	528	218		014	254	105	805							
	STD	0400	0004	3465	2784	0002651	0125			14556	528													
153	OBS	0483	0011	34658	2784					14573	526	216		011	222	107	802							
	STD	0500	0014	3466	2784	0002657	0152			14578	522													
153	OBS	0571	0021	34664	2784					14593	512	218		004	254	112	805							
	STD	0600	0021	3467	2785	0002667	0178			14598	512													
153	OBS	T0662	0022	34668	2785					14608	513	219		008	229	114	801							
	STD	0700	0022	3467	2785	0002658	0205			14615	513													
153	OBS	T0748	0021	34666	2785					14622	512	223		013	210	115	798							
264	OBS	T0773	0020	34670	2785					14626	515	233		008	269	119	808							
	STD	0800	0019	3467	2785	0002614	0231			14630	514													
153	OBS	T0852	0017	34570	2785					14638	513	227		004	213	117	800							
	STD	0900	0017	3467	2785	0002599	0257			14646	518													
264	OBS	0963	0016	34667	2785					14656	524	220		007	218	118	807							
	STD	1000	0013	3467	2785	0002590	0283			14661	527													
264	OBS	1089	0008	34665	2785					14674	531	219		007	244	119	810							
	STD	1100	0008	3467	2785	0002564	0309			14676	531													
	STD	1200	0004	3466	2785	0002536	0334			14691	531													
	STD	1300	0001	3466	2785	0002522	0360			14706	531													
264	OBS	1320	0000	34662	2785					14709	531	226		006	242	120	808							
	STD	1400	-0003	3466	2786	0002483	0385			14721	541													
	STD	1500	-0007	3466	2786	0002450	0409			14736	550													
264	OBS	1605	-0010	34660	2786					14753	555	222		005	295	121	808							
	STD	1750	-0014	3466	2786	0002376	0470			14776	547													
264	OBS	1895	-0017	34657	2786					14799	545	224		007	257	120	807							
	STD	2000	-0019	3466	2786	0002336	0529			14816	552													
264	OBS	T2194	-0022	34654	2786					14848	562	214		006	294	123	806							
264	OBS	2493	-0028	34650	2786					14897	571	229		008	265	121	805							
	STD	2500	-0028	3465	2786	0002235	0643			14898	571													
264	OBS	T2790	-0036	34645	2786					14945	583	233		003	276	120	805							
264	OBS	2893	-0045	34647	2786					14959	591	227		007	262	117	805							
264	OBS	T2916	-0047	34646	2786					14962	595	230		007	287	113	803							
264	OBS	T2935	-0050	34646	2787					14964	601	229		011	258	108	806							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	OBS. INSTR.	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		HDDC STATION NUMBER
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318037	GL	702825	046584W	556	06	02	25	060	1968		027	3173	10	00	0	X		71	6	9	0024	

318037	GL	70282S	046584W	556	06	02	25	060	1968				027		3173	10	00	0	X		71	6	8	0034
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		24	507	926		-029	6	16	

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDALTY-2107	S Δ D DYN. M X 10 ³	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SIC 4-Si μg - ml/l	PH
		STD	0000	-0179	3400	2739	0006978	0000	14396	748						
049		OBS	0000	-0179	34003	2739			14396	748	204		028	232	087	815
		STD	0010	-0181	3399	2738	0007052	0007	14396	779						
049		OBS	0010	-0181	33992	2738			14396	779	209		025	320	087	813
		STD	0020	-0174	3415	2751	0005848	0013	14403	754						
049		OBS	0025	-0172	34220	2756			14406	741	213		021	320	090	814
		STD	0030	-0172	3430	2763	0004696	0019	14408	723						
		STD	0050	-0169	3450	2779	0003156	0027	14416	670						
049		OBS	0052	-0169	34509	2780			14416	666	222		016	260	092	813
		STD	0075	-0157	3451	2779	0003101	0034	14426	643						
049		OBS	0078	-0155	34514	2780			14427	644	232		020	253	093	812
		STD	0100	-0146	3452	2780	0003045	0042	14435	644						
049		OBS	0104	-0143	34525	2780			14437	644	223		012	248	092	813
		STD	0125	-0108	3455	2781	0002937	0050	14458	617						
		STD	0150	-0071	3458	2782	0002851	0057	14479	588						
049		OBS	0155	-0065	34584	2782			14483	583	237		018	262	093	810
		STD	0200	-0018	3462	2783	0002761	0071	14513	543						
049		OBS	10207	-0013	34630	2783			14516	538	238		012	241	094	810
		STD	0250	-0004	3464	2784	0002726	0085	14528	528						
		STD	0300	0006	3465	2784	0002711	0098	14541	519						
049		OBS	0312	0008	34649	2784			14543	517	238		011	267	096	809
		STD	0400	0022	3466	2784	0002708	0125	14565	509						
049		OBS	0416	0023	34665	2784			14568	508	239		014	291	100	807
		STD	0500	0025	3467	2785	0002666	0152	14583	506						
049		OBS	0520	0025	34669	2785			14586	506	234		008	285	100	806
		STD	0600	0025	3467	2785	0002655	0179	14599	508						
049		OBS	0624	0024	34671	2785			14603	510	234		013	252	101	805
		STD	0700	0019	3467	2785	0002614	0205	14613	522						
049		OBS	10729	0018	34666	2785			14618	524	233		014	241	103	806
		STD	0800	0017	3467	2785	0002630	0231	14629	523						
049		OBS	10833	0016	34666	2785			14634	522	250		011	289	103	805
		STD	0900	0013	3467	2785	0002592	0257	14644	532						
049		OBS	10932	0012	34667	2785			14649	534	244		009	270	118	804
		STD	1000	0009	3466	2785	0002612	0283	14659	533						
049		OBS	11035	0008	34658	2785			14664	530	242		012	260	114	803

REFERENCE	SHIP CODE	LATITUDE °	LONGITUDE °	DATE	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER	
					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
					COLOP CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mba)													
318037	GL	70143S	050103W	557	00	02 25	210	1968		028		3265	33	00	0	X		71	7	8	0035	
					</																	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CHT CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TPP	AMT		
318037	GL		70118S	051207W		557	01	02	26	090		1968		029		3167	10	00	0	X			618		0036
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE			DRY BULB	WET BULB																		
		18	S17		868			-052	6	07															
MESSINGR TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- $\times 10^3$	$\Sigma \Delta D$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot dl/l$	TOTAL-P $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	NO ₃ -N $\mu g \cdot dl/l$	SIO ₄ -Si $\mu g \cdot dl/l$	pH	S C								
072		OBS	T0378	0009	34655	2784			14554	531	225		021	215	106	804									
		STD	0400	0014	3466	2784	0002658		14560	525															
072		OBS	T0474	0023	34668	2785			14577	512	228		022	249	109	804									
		STD	0500	0023	3467	2785	0002640		14581	513															
072		OBS	0571	0022	34674	2785			14593	515	232		015	256	108	801									
		STD	0600	0021	3467	2785	0002598		14597	515															
072		OBS	0668	0019	34673	2785			14607	515	232		023		112	800									
		STD	0700	0019	3467	2785	0002592		14613	511															
072		OBS	0764	0018	34673	2785			14623	510	237		018	245	112	801									
		STD	0800	0016	3467	2785	0002578		14628	517															
072		OBS	0862	0013	34670	2785			14637	524	233		017	238	116	802									
		STD	0900	0011	3467	2785	0002554		14643	523															
072		OBS	0959	0007	34667	2785			14651	522	247		019	204	109	805									

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REFERENCE		SHIP	LATITUDE	LONGITUDE	MARSden SOURCE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER					
CTRY CODE	ID. NO.	CODE	° 1/10	° 1/10	10"	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIP.	HGT	PER	SEA	TYPE	AMT				
318037	GL		683835	047200W	520	87	02	27	210	1968		031		3374	30	00	0	X			X7	0 3		0038
					WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB												
					OT	SO	18	S10	871			-063	6	45										
MESSNGR TIME OF HR 1/10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. $\times 10^3$		SOUND VELOCITY	D ₂ ml/l	PD ₄ -P $\mu g - \sigma_t/l$	TOTAL-P $\mu g - \sigma_t/l$	NO ₂ -N $\mu g - \sigma_t/l$	NO ₃ -N $\mu g - \sigma_t/l$	Si D ₄ -Si $\mu g - \sigma_t/l$	pH	ST C				
		STD	0000	-0185	3406	2744		0006535		0000		14394												
223		OBS	0000	-0185	34059	2744						14394												
		STD	0010	-0185	3406	2744		0006528		0007		14395												
		OBS	0010	-0185	34059	2744						14395												
		STD	0020	-0185	3406	2744		0006521		0013		14397												
		OBS	0020	-0185	34059	2744						14397												
		OBS	0025	-0179	34067	2744						14401												
		STD	0030	-0167	3437	2768		0004186		0018		14411												
		OBS	0030	-0167	34368	2768						14411												
		OBS	0035	-0162	34414	2772						14415												
		OBS	0040	-0165	34418	2772						14415												
		STD	0050	-0167	3444	2774		0003600		0026		14416												
		OBS	0050	-0167	34443	2774						14416												
		OBS	0066	-0150	34488	2777						14427												
		STD	0075	-0154	3448	2777		0003347		0035		14427												
		OBS	0075	-0154	34479	2777						14427												
		OBS	0086	-0147	34493	2778						14432												
		OBS	0090	-0153	34470	2776						14429												
		STD	0100	-0143	3451	2779		0003147		0043		14436												
		OBS	0100	-0143	34508	2779						14436												
		STD	0125	-0123	3454	2781		0002974		0051		14450												
		OBS	0125	-0123	34538	2781						14450												
		STD	0150	-0092	3457	2782		0002854		0058		14469												
		OBS	0150	-0092	34568	2782						14469												
		STD	0200	-0015	3464	2785		0002632		0072		14514												
		OBS	0200	-0015	34643	2785						14514												
		STD	0250	0009	3466	2785		0002654		0085		14534												
		OBS	0250	0009	34657	2785						14534												
		STD	0300	0017	3466	2784		0002685		0098		14546												
		OBS	0300	0017	34659	2784						14546												
		STD	0400	0026	3467	2785		0002666		0125		14567												
		OBS	0400	0026	34669	2785						14567												
		STD	0500	0029	3468	2785		0002627		0151		14585												
		OBS	0500	0029	34677	2785						14585												
		STD	0600	0026	3468	2785		0002609		0178		14600												
		OBS	0600	0026	34677	2785						14600												
		STD	0700	0024	3468	2785		0002597		0204		14616												
		OBS	0700	0024	34677	2785						14616												
		STD	0800	0022	3468	2785		0002584		0230		14632												
		OBS	0800	0022	34677	2785						14632												
		STD	0900	0018	3468	2786		0002554		0255		14647												
		OBS	0900	0018	34677	2786						14647												
		STD	1000	0014	3468	2786		0002531		0281		14662												
		OBS	1000	0014	34676	2786						14662												
		STD	1100	0011	3467	2786		0002528		0306		14677												
		OBS	1100	0011	34673	2786						14677												
		STD	1200	0006	3467	2786		0002523		0331		14691												
		OBS	1200	0006	34668	2786						14691												
		STD	1300	0003	3467	2786		0002494		0356		14707												
		OBS	1300	0003	34668	2786						14707												
		STD	1400	0001	3467	2786		0002480		0381		14723												
		OBS	1400	0001	34667	2786						14723												
		STD	1500	-0003	3467	2786		0002448		0406		14738												
		OBS	1500	-0003	34666	2786						14738												
		OBS	1600	-0006	34661	2786						14754												
		OBS	1700	-0010	34659	2786						14769												
		STD	1750	-0012	3466	2786		0002402		0466		14777												
		OBS	1800	-0013	34658	2786						14785												
		OBS	1900	-0016	34658	2786						14800												
		STD	2000	-0014	3466	2786		0002370		0526		14818												
		OBS	2000	-0014	34658	2786						14818												
		OBS	2100	-0019	34658	2786						14833												
		OBS	2200	-0021	34657	2786						14850												
		OBS	2300	-0023	34657	2786						14866												
		OBS	2400	-0025	34656	2786						14882												
		STD	2500	-0026	3466	2786		0002220		0641		14899												
		OBS	2500	-0026	34655	2786						14899												
		OBS	2600	-0027	34654	2786						14916												
		OBS	2700	-0029	34648	2786						14932												
		OBS	2800	-0030	34648	2786						14949												
		OBS	2900	-0033	34643	2786						14965												
		STD	3000	-0034	3464	2785		0002187		0751		14982												
		OBS	3000	-0034	34639	2785						14982												

REF CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSSEN SQUARE		STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10°	1°	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
					WATER		WIND		BARO- METER (mb)		AIR TEMP. °C				VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB										
318037	GL	68383S	047200W		520	87	02	27	210	1968		031	3436	34	00	0	X		70	6	6	0039
							18	510	871		-063	6	26									
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH				
		STD	0000	-0182	3409	2746		0006318		0000	14395	698										
	220	OBS	0000	-0182	34088	2746					14395	698	205					806				
		STD	0010	-0184	3409	2746		0006315		0006	14396	706										
	220	OBS	0010	-0184	34087	2746					14396	706	205					806				
		STD	0020	-0184	3409	2746		0006308		0013	14398	706										
	220	OBS	0025	-0184	34087	2746					14399	702	199					796				
		STD	0030	-0178	3418	2753		0005602		0019	14404	687										
		STD	0050	-0163	3442	2772		0003779		0028	14417	649										
	220	OBS	0050	-0163	34421	2772					14417	649	213					804				
		STD	0075	-0160	3448	2777		0003360		0037	14424	650										
	220	OBS	0075	-0160	34475	2777					14424	650	215					801				
		STD	0100	-0154	3450	2778		0003212		0045	14431	600										
		OBS	0100	-0154	34495	2778					14431	600	224					795				
		STD	0125	-0146	3452	2780		0003056		0053	14439	596										
		STD	0150	-0124	3454	2781		0002952		0060	14454	581										
	220	OBS	0151	-0123	34540	2781					14455	580	240					798				
		STD	0200	-0037	3461	2783		0002771		0075	14504	517										
	220	OBS	T0201	-0036	34615	2783					14504	516	237					786				
		STD	0250	-0002	3465	2785		0002646		0088	14529	496										
	220	OBS	0274	0009	34656	2784					14538	489	233					792				
		STD	0300	0011	3466	2785		0002642		0102	14543	485										
	220	OBS	0363	0017	34668	2785					14556	478	233					790				
		STD	0400	0023	3467	2785		0002639		0128	14565	475										
	220	OBS	T0449	0029	34678	2785					14576	473	233					788				
		STD	0500	0030	3468	2785		0002621		0154	14585	472										
	220	OBS	T0530	0031	34679	2785					14591	471	257					792				
		STD	0600	0028	3468	2785		0002608		0180	14601	472										
	220	OBS	0688	0025	34680	2786					14614	473	236					791				
		STD	0700	0025	3468	2786		0002581		0206	14616	474										
		STD	0800	0021	3468	2786		0002554		0232	14631	480										
	220	OBS	T0850	0019	34678	2786					14639	483	234					790				
		STD	0900	0018	3468	2786		0002543		0257	14646	485										
		STD	1000	0015	3468	2786		0002520		0283	14662	489										
	186	OBS	T1016	0014	34678	2786					14664	490	239					802				
		STD	1100	0012	3468	2786		0002506		0308	14677	493										
		STD	1200	0009	3468	2786		0002480		0333	14693	497										
	186	OBS	1270	0006	34676	2786					14703	500	243					796				
		STD	1300	0004	3468	2786		0002450		0357	14708	502										
		STD	1400	-0000	3467	2786		0002427		0382	14723	508										
		STD	1500	-0004	3467	2786		0002402		0406	14738	513										
	186	OBS	1523	-0005	34670	2786					14741	514	240					799				
		STD	1750	-0011	3467	2787		0002330		0465	14777	518										
	186	OBS	1830	-0013	34665	2786					14790	521	238					788				
		STD	2000	-0018	3466	2786		0002294		0523	14817	532										
	186	OBS	2136	-0021	34662	2786					14839	537	236					793				
	186	OBS	T2443	-0025	34661	2787					14890	539	236					798				
		STD	2500	-0025	3466	2786		0002195		0635	14900	541										
	186	OBS	2752	-0029	34656	2786					14941	550	238					796				
		STD	3000	-0035	3465	2786		0002096		0742	14982	558										
	186	OBS	3063	-0038	34648	2786					14992	561	236					794				
	186	OBS	3321	-0052	34638	2786					15030	573	230					793				
	186	OBS	T3368	-0057	34644	2787					15037	576	233					792				
	186	OBS	3400	-0068	34643	2787					15037	589	226					796				
	186	OBS	T3434	-0078	34647	2788					15039	590	228					806				

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS INDEX	W. RSDEN SQUARE		STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318037	GL		68204S	049210W		520	89	02	28	150	1968		032	3374	31	00	0	X		X7	0	3	0040
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
COLOR CODE		TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
						DT	SD	22	S09	894		-115	6	41									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-10 ²		Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH						
		STD	0000	-0181	3399	2738	0007089		0000	14395													
157		OBS	0000	-0181	33988	2738				14395													
		STD	0010	-0185	3410	2747	0006213		0007	14396													
		OBS	0010	-0185	34100	2747				14396													
		STD	0020	-0172	3436	2768	0004256		0012	14407													
005		OBS	0020	-0172	34358	2768				14407													
		OBS	0025	-0171	34398	2771				14409													
		STD	0030	-0171	3442	2773	0003754		0016	14410													
		OBS	0030	-0171	34423	2773				14410													
		STD	0050	-0168	3446	2776	0003444		0023	14416													
		OBS	0050	-0168	34463	2776				14416													
		STD	0075	-0164	3449	2778	0003257		0031	14422													
		OBS	0075	-0164	34487	2778				14422													
		STD	0100	-0154	3451	2779	0003112		0039	14431													
		OBS	0100	-0154	34508	2779				14431													
		STD	0125	-0130	3454	2781	0002903		0047	14447													
		OBS	0125	-0130	34544	2781				14447													
		STD	0150	-0080	3457	2782	0002881		0054	14475													
		OBS	0150	-0080	34571	2782				14475													
		STD	0200	-0004	3465	2784	0002653		0068	14519													
		OBS	0200	-0004	34648	2784				14519													
		STD	0250	0006	3466	2785	0002630		0081	14532													
		OBS	0250	0006	34658	2785				14532													
		STD	0300	0015	3467	2785	0002605		0094	14545													
		OBS	0300	0015	34668	2785				14545													
		STD	0400	0024	3468	2785	0002585		0120	14566													
		OBS	0400	0024	34678	2785				14566													
		STD	0500	0031	3469	2786	0002565		0146	14586													
		OBS	0500	0031	34687	2786				14586													
		STD	0600	0031	3469	2786	0002561		0172	14602													
		OBS	0600	0031	34688	2786				14602													
		STD	0700	0030	3469	2786	0002557		0197	14619													
		OBS	0700	0030	34688	2786				14619													
		STD	0800	0026	3469	2786	0002531		0223	14634													
		OBS	0800	0026	34688	2786				14634													
		STD	0900	0021	3469	2786	0002502		0248	14648													
		OBS	0900	0021	34687	2786				14648													
		STD	1000	0017	3468	2786	0002502		0273	14663													
		OBS	1000	0017	34683	2786				14663													
		STD	1100	0013	3468	2786	0002499		0298	14678													
		OBS	1100	0013	34679	2786				14678													
		STD	1200	0009	3468	2786	0002473		0323	14693													
		OBS	1200	0009	34678	2786				14693													
		STD	1300	0006	3468	2786	0002445		0347	14709													
		OBS	1300	0006	34678	2786				14709													
		STD	1400	0002	3468	2787	0002407		0372	14724													
		OBS	1400	0002	34678	2787				14724													
		STD	1500	-0002	3468	2787	0002368		0395	14739													
		OBS	1500	-0002	34678	2787				14739													
		OBS	1600	-0005	34677	2787				14754													
		OBS	1700	-0009	34673	2787				14770													
		STD	1750	-0011	3467	2787	0002308		0454	14777													
		OBS	1800	-0013	34673	2787				14785													
		OBS	1900	-0015	34669	2787				14801													
		STD	2000	-0017	3467	2787	0002267		0511	14817													
		OBS	2000	-0017	34668	2787				14817													
		OBS	2100	-0019	34667	2787				14833													
		OBS	2200	-0021	34667	2787				14850													
		OBS	2300	-0023	34663	2787				14866													
		OBS	2400	-0025	34661	2787				14882													
		STD	2500	-0026	3466	2787	0002184		0622	14899													
		OBS	2500	-0026	34660	2787				14899													
		OBS	2600	-0027	34659	2787				14916													
		OBS	2700	-0029	34658	2787				14932													
		OBS	2800	-0031	34658	2787				14949													
		OBS	2900	-0032	34658	2787				14966													
		STD	3000	-0034	3466	2787	0002071		0729	14982													
		OBS	3000	-0034	34655	2787				14982													
		OBS	3100	-0036	34648	2786				14999													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	ORIGIN INDIC	W/RSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- TNER CODE	CLOUD CODES		NOOC STATION NUMBER	
CITY CODE	IO. NO.					10'	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318037		GL	682045	049210W		520	89	02	28	180	1968		032	3541	35	00	0	X		71	7	8	0041
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
										24	508	895	-105	6		26							
MESSAGE TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107		Σ Δ D OTN. M. X 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C				
		STD	0000	-0179	3414	2750	0005956	0000	14398	680													
189		OBS	0000	-0179	34136	2750			14398	680		207									090 814		
		STD	0010	-0183	3413	2749	0006002	0006	14397	680													
189		OBS	0010	-0183	34128	2749			14397	680		206									087 813		
		STD	0020	-0184	3413	2749	0006002	0012	14399	665													
189		OBS	0026	-0184	34126	2749			14399	656		206									086 815		
		STD	0030	-0180	3420	2755	0005443	0018	14403	649													
		STD	0050	-0166	3444	2774	0003625	0027	14416	625													
189		OBS	0052	-0165	34459	2776			14417	623		219									092 808		
		STD	0075	-0166	3449	2778	0003259	0035	14421	619													
189		OBS	0078	-0166	34489	2778			14422	618		222									092 808		
		STD	0100	-0165	3450	2779	0003141	0043	14426	618													
189		OBS	0104	-0163	34505	2779			14428	617		222									092		
		STD	0125	-0139	3453	2781	0002980	0051	14443	597													
		STD	0150	-0104	3456	2782	0002867	0058	14464	570													
189		OBS	0155	-0096	34563	2782			14468	564		234									099 805		
		STD	0200	-0008	3464	2784	0002692	0072	14517	498													
189		OBS	T0207	0002	34647	2784			14523	491		237									109 803		
		STD	0250	0009	3465	2784	0002692	0086	14534	493													
		STD	0300	0014	3466	2784	0002683	0099	14544	496													
189		OBS	0311	0015	34658	2784			14547	496		236									111 804		
		STD	0400	0015	3466	2784	0002665	0126	14561	480													
189		OBS	0415	0015	34664	2785			14564	478		236									115 798		
		STD	0500	0030	3467	2784	0002686	0153	14585	472													
189		OBS	T0519	0032	34676	2785			14589	471		240									118 802		
		STD	0600	0033	3468	2785	0002641	0179	14603	476													
189		OBS	T0624	0033	34680	2785			14607	477		236									120 795		
		STD	0700	0031	3468	2785	0002624	0206	14619	479													
		STD	0800	0027	3468	2785	0002598	0232	14634	481													
189		OBS	T0825	0026	34678	2785			14638	482		237									123 796		
		STD	0900	0023	3468	2785	0002592	0258	14649	483													
		STD	1000	0019	3468	2786	0002570	0283	14664	488													
189		OBS	T1027	0017	34675	2786			14667	490		238									123 800		
220		OBS	T1075	0014	34675	2786			14674	494		235									124 803		
		STD	1100	0013	3467	2785	0002566	0309	14678	495													
		STD	1200	0009	3467	2786	0002532	0335	14693	499													
		STD	1300	0005	3467	2786	0002496	0360	14708	503													
220		OBS	1329	0004	34667	2786			14712	504		240									114 801		
		STD	1400	0001	3467	2786	0002480	0385	14723	507													
		STD	1500	-0002	3467	2786	0002457	0409	14739	512													
220		OBS	1579	-0005	34666	2786			14751	516		240									123		
		STD	1750	-0009	3466	2786	0002393	0470	14778	528													
220		OBS	1891	-0013	34663	2786			14800	533		237									121 794		
		STD	2000	-0016	3466	2786	0002314	0529	14818	533													
220		OBS	2198	-0021	34662	2786			14849	532		238									116 794		
		STD	2500	-0026	3466	2787	0002185	0641	14899	544													
220		OBS	2508	-0026	34659	2786			14901	544		240									114 793		
220		OBS	2814	-0030	34656	2786			14952	547		242									125 792		
		STD	3000	-0031	3465	2786	0002115	0749	14984	549													
220		OBS	T3124	-0034	34653	2786			15004	553		231									120 780		
220		OBS	3437	-0052	34635	2786			15051	570		235									118 788		
220		OBS	T3490	-0062	34630	2786			15056	578		231									113 790		
220		OBS	T3515	-0065	34635	2786			15059	584		231									111 791		
220		OBS	3532	-0065	34653	2788			15062	583		227									103 782		

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN		STATION TIME		YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE			WEA-	MOON	NODC	
					SQUARE	IGMT	DAY	HR.1/10		CRUISE	STATION			OBSERVATIONS	THER	CODES				STATION
CRUISE	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.		
318037	GL	68116S	049021W	520	89	02	29	030	1968	033	3512	30	00	0	X	X7	0	3		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	UTM INDEX	MAPS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE	
	318037	GL	681495	047513W		520	87	02	29	180	1966	034	3475	05	00	0	X			6	8	0043
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
						COLOR	TRANS.	DIP	SPEED OR FORCE		DRY BULB	WET BULB										
						COCE	(m)			(mb)												
									08	503	929		-085	7	11							

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	NO ₃ -N $\mu\text{g} \cdot \text{dl/l}$	NO ₂ -N $\mu\text{g} \cdot \text{dl/l}$	SIO ₂ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S CODE
		STD	0000	-0145	3410	2746	0006288	0000	14413	698							
181		OBS	0000	-0145	34104	2746	0006288	0000	14413	698	194				085	804	
		STD	0010	-0171	3410	2747	0006222	0006	14403	708							
181		OBS	0010	-0171	34103	2747	0006222	0006	14403	708	202				086	804	
		STD	0020	-0179	3410	2747	0006205	0012	14400	724							
181		OBS	0025	-0180	34101	2747	0006205	0012	14401	725	203				086	804	
		STD	0030	-0176	3419	2754	0006524	0018	14405	703							
		STD	0050	-0161	3445	2775	0006563	0027	14419	647							
181		OBS	0051	-0160	34457	2775	0006563	0027	14420	645	212				089	801	
		STD	0075	-0158	3450	2779	0006174	0036	14425	648							
181		OBS	0076	-0158	34505	2779	0006174	0036	14425	648	219				090	798	
		STD	0100	-0141	3452	2780	0006061	0044	14437	626							
181		OBS	0102	-0140	34523	2780	0006061	0044	14438	624	219				093	797	
		STD	0125	-0135	3453	2780	0002993	0051	14445	613							
		STD	0150	-0116	3454	2781	0002967	0059	14457	598							
181		OBS	0153	-0115	34543	2781	0002967	0059	14459	596	225				094	794	
		STD	0200	-0047	3461	2783	0002760	0073	14499	555							
181		OBS	0204	-0042	34610	2783	0002760	0073	14502	552	226				098	794	
		STD	0250	-0006	3464	2784	0002730	0087	14527	514							
		STD	0300	0019	3456	2785	0002659	0100	14547	487							
181		OBS	0306	0021	34667	2785	0002659	0100	14549	485	229				106	791	
		STD	0400	0124	3467	2785	0002645	0127	14566	485							
181		OBS	0409	0025	34674	2785	0002645	0127	14568	485	230				108	790	
		STD	0500	0032	3468	2785	0002624	0153	14586	479							
181		OBS	0513	0033	34680	2785	0002624	0153	14589	478	229				113	790	

REFERENCE CITY NO.	SHIP CODE	LATITUDE ° ' 1/10	LONGITUDE ° ' 1/10	DEPTH INCHES	WATERSIDE SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318037	GL	682535	145501W	520	185	03	01	090	1968	035		3877	21	00	00	0	X		X1	7 7	0044
					WATER		WIND		BARO- METER (mb)	AIR TEMP °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	WAVE PERIOD	DRY BULB	WET BULB															
					06	509	890			-065	7	21									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY - σ _t	SALINITY M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SIO ₄ -Si μg - at/l	pH	°C				
		STD	0000	-0181	3402	2741	0006820	0000	14395	712											
100		OBS	0003	-0181	34023	2741			14395	712	194				086	810					
		STD	0010	-0184	3403	2741	0006745	0007	14395	725											
100		OBS	0010	-0184	34031	2741			14395	725	195				086	812					
		STD	0020	-0185	3403	2741	0006745	0014	14397	740											
100		OBS	0026	-0185	34030	2741			14398	741	195				085	810					
		STD	0030	-0181	3411	2748	0006132	0020	14401	731											
		STD	0050	-0163	3421	2772	0003864	0030	14417	686											
100		OBS	0052	-0162	34436	2774			14418	682	213				088	805					
		STD	0075	-0158	3447	2776	0003404	0039	14425	651											
		STD	0100	-0147	3450	2778	0003195	0047	14434	621											
100		OBS	0103	-0145	34501	2778			14436	618	218				092	803					
		STD	0125	-0130	3454	2781	0002934	0055	14447	599											
		STD	0150	-0104	3458	2783	0002715	0062	14464	575											
100		OBS	0155	-0097	34940	28120			570	243					097	600					
		STD	0200	-0010	3463	2783	0002757	0076	14516	517											
100		OBS	0207	-0002	34639	2784			14521	512	227				106	797					
		STD	0250	0009	3466	2784	0002670	0089	14534	496											
100		OBS	0259	0011	34658	2784			14536	494	228				106	798					
		STD	0300	0017	3466	2784	0002685	0103	14546	489											
100		OBS	0313	0019	34659	2784			14549	487	231				110	797					
		STD	0400	0025	3466	2784	0002727	0130	14566	479											
100		OBS	0413	0026	34690	27860			478	235					112	796					
		STD	0500	0029	3467	2784	0002682	0157	14585	474											
100		OBS	0518	0030	34674	2785			14588	473	232				113	794					
		STD	0600	0029	3468	2785	0002609	0183	14601	475											
100		OBS	0617	0029	34684	2786			14604	476	234				118	795					
		STD	0700	0026	3469	2786	0002551	0209	14617	481											
100		OBS	0719	0025	34685	2786			14620	482	233				120	796					
		STD	0800	0024	3468	2786	0002570	0235	14633	480											
100		OBS	0820	0024	34680	2786			14636	480	226				119	794					
		STD	0900	0022	3468	2786	0002562	0260	14648	482											
		STD	1000	0019	3468	2786	0002540	0286	14664	485											
100		OBS	T1020	0018	34678	2786			14667	485	231				120	794					
		STD	1100	0015	3468	2786	0002538	0311	14679	486											
038		OBS	T1154	0013	34674	2786			14687	487	232				121	792					
		STD	1200	0013	3467	2786	0002535	0337	14695	485											
038		OBS	T1262	0009	34674	2786			14703	482	247				116	790					
100		OBS	T1273	0008	24666	2785			14705	500	242				122	793					
		STD	1300	0007	3467	2785	0002543	0362	14709	497											
		STD	1400	0003	3467	2786	0002505	0387	14724	488											
038		OBS	1460	0001	34680	27870			487	255					119	790					
		STD	1500	-0000	3467	2786	0002473	0412	14739	493											
		STD	1750	-0008	3467	2786	0002391	0473	14779	520											
038		OBS	1763	-0008	34666	2786			14781	521	243				122	792					
		STD	2000	-0015	3466	2786	0002331	0532	14818	530											
036		OBS	2066	-0017	34661	2786			14828	530	251				123	786					

REFERENCE STATION ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
					10"	1"	DAY HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		TYPE	AMT	

318037	GL	690165	046002W	320	96	03	01 150	1968		036	3884	10	00	0	X		X2	7 18		0045
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. COEF	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

	06		506	885	-053	7	16		
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MISSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₂ -N μg - dl/l	SIO ₄ -Si μg - dl/l	PH	RES.
		STD	0000	-0181	3402	2741	0006828	0000	14395	716							
		OBS	0000	-0181	34022	2741			14395	716	117					086	815
		STD	0010	-0183	3402	2741	0006809	0007	14396	721							
		OBS	0010	-0183	34023	2741			14396	721	194					084	816
		STD	0020	-0184	3402	2741	0006807	0014	14397	722							
		OBS	0020	-0185	34022	2741			14397	722	122					083	816
		STD	0030	-0180	3412	2748	0006057	0020	14402	708							
		STD	0050	-0163	3444	2774	0003634	0030	14418	659							
		OBS	0051	-0162	34454	2775			14419	658	201					087	805
		STD	0075	-0158	3448	2777	0003328	0038	14425	656							
		OBS	0077	-0157	34481	2777			14426	655	210					089	811
		STD	0100	-0146	3450	2778	0003198	0047	14435	625							
		OBS	0103	-0144	34505	2779			14436	621	213					089	811
		STD	0125	-0118	3453	2780	0003053	0054	14453	594							
		STD	0150	-0087	3456	2781	0002936	0062	14472	564							
		OBS	0154	-0082	34565	2781			14475	560	228					096	808
		STD	0200	-0018	3463	2784	0002715	0076	14513	511							
		OBS	T0207	-0010	34638	2784			14518	506	228					101	805
		STD	0250	0003	3466	2785	0002598	0089	14531	493							
		STD	0300	0015	3467	2785	0002590	0102	14545	483							
		OBS	0305		34671				482	231						107	802
		STD	0400	0030	3468	2785	0002630	0128	14568	477							
		OBS	0410	0031	34678	2785			14571	476	231					108	802
		STD	0500	0032	3468	2785	0002624	0155	14586	474							
		OBS	T0511	0032	34683	2785			14588	474	232					110	800
		STD	0600	0028	3468	2786	0002584	0181	14601	480							
		OBS	0616	0027	34682	2786			14603	481	235					113	801
		STD	0700	0027	3468	2785	0002588	0207	14617	483							
		OBS	T0723	0027	34681	2785			14621	483	233					113	799
		STD	0800	0025	3468	2786	0002583	0232	14633	484							
		OBS	T0822	0024	34679	2785			14636	485	242					117	800
		STD	0900	0022	3468	2785	0002585	0258	14648	488							
		OBS	T0925	0021	34676	2785			14652	489	237					118	802
		STD	1000	0018	3468	2786	0002554	0284	14663	489							
		OBS	T1024	0017	34677	2786			14667	489	239					118	798

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INCH	MARS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318037	GL	694125	046163W		520	96	03	02	050	1968		037	3857	39	00	0	X		X1	6	7		0047
					WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	873		DRY BULB		WET BULB		29								
								11	505		-036		7		29								
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta D$ DYN. M. x 10 ³		SOUND VELOCITY		O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₃ -N µg - at/l	NO ₃ -N µg - at/l	Si O ₄ -Si µg - at/l	pH			
		STD	0000	-0179	3411	2748		0006164		0000		14397		689									
074		OBS	0000	-0179	34109	2748						14397		689	210				086	811			
		STD	0010	-0184	3410	2747		0006192		0006		14396		693									
074		OBS	0010	-0184	34103	2747						14396		693	203				086	811			
		STD	0020	-0185	3410	2747		0006199		0012		14398		697									
074		OBS	0026	-0185	34100	2747						14399		700	210				084	812			
		STD	0030	-0181	3417	2753		0005671		0018		14402		687									
		STD	0050	-0165	3444	2774		0003628		0028		14417		634									
074		OBS	0052	-0164	34461	2776						14418		630	220				087	806			
		STD	0075	-0153	3448	2777		0003342		0036		14427		620									
		STD	0100	-0138	3450	2778		0003224		0045		14439		606									
074		OBS	0103	-0136	34502	2778						14440		604	222				092	805			
		STD	0125	-0121	3452	2779		0003119		0052		14451		590									
		STD	0150	-0097	3455	2781		0002971		0060		14467		570									
074		OBS	0154	-0092	34556	2781						14470		567	229				094	804			
		STD	0200	-0023	3462	2783		0002765		0074		14510		518									
074		OBS	T0205	-0018	34622	2783						14513		514	230				100	800			
		STD	0250	0009	3465	2784		0002738		0088		14534		491									
074		OBS	0257	0012	34650	2784						14536		489	238				103	798			
		STD	0300	0019	3466	2784		0002690		0102		14547		483									
074		OBS	T0309	0020	34661	2784						14549		482	237				106	797			
		STD	0400	0029	3467	2784		0002707		0129		14568		479									
074		OBS	0411	0030	34667	2784						14570		478	238				108	797			
		STD	0500	0030	3467	2784		0002686		0156		14585		472									
074		OBS	T0512	0030	34672	2785						14587		471	238				110	799			
		STD	0600	0029	3467	2785		0002653		0182		14601		475									
074		OBS	0614	0029	34674	2785						14604		476	240				113	796			
		STD	0700	0028	3468	2785		0002633		0209		14618		477									
074		OBS	T0719	0027	34677	2785						14620		478	249				115	797			
		STD	0800	0023	3467	2785		0002617		0235		14632		484									
074		OBS	T0810	0023	34674	2785						14634		485	228				116	796			
		STD	0900	0020	3467	2785		0002599		0261		14647		488									
		STD	1000	0017	3467	2785		0002581		0287		14663		491									
074		OBS	T1018	0016	34672	2785						14665		491	247				119	795			
016		OBS	T1036	0016	34680	2786Q								487	254				118	801			
		STD	1100	0014	3467	2786		0002552		0313		14678		493									
016		OBS	T1140	0012	34674	2786						14684		496	270				119	801			
		STD	1200	0010	3467	2786		0002540		0338		14693		497									
		STD	1300	0006	3467	2786		0002504		0363		14708		499									
016		OBS	1344	0005	34669	2786						14715		500	252				119	800			
		STD	1400	0004	3467	2786		0002499		0388		14724		502									
		STD	1500	0001	3467	2786		0002476		0413		14740		506									
016		OBS	1650	-0004	34665	2786						14763		512	256				118	802			
		STD	1750	-0008	3466	2786		0002402		0474		14778		518									
016		OBS	1956	-0015	34661	2786						14810		528	252				118	800			
		STD	2000	-0016	3466	2786		0002336		0533		14818		529									
016		OBS	T2262	-0021	34658	2786						14860		537	252				118	798			
		STD	2500	-0022	3466	2786		0002250		0648		14901		538									
016		OBS	2567Q	-0025	34658	2786								541	251				118	797			
016		OBS	2872Q	-0028	34656	2786								539	252				117	795			
		STD	3000	-0026	3465	2786		0002182		0759		14986		544									
039		OBS	T3185	-0029	34652	2786						15017		548	256				115	796			
039		OBS	3491	-0035	34649	2786						15068		557	252				115	794			
039		OBS	3773	-0047	34636	2786						15113		569	240				111	792			
039		OBS	3798	-0049	34637	2786						15116		575	251				109	790			
039		OBS	T3817	-0053	34637	2786						15118		779Q	226				107	791			
039		OBS	T3855	-0062	34645	2787						15121		580	222				097	797			

REF CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARS DEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SWPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOGC STATION NUMBER		
						10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
						WATER		WIND			AIR TEMP. °C				VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB																	
						DT	SO	11	505	865		-025	7	32									
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ QTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH	SG						
		STD	0000	-0185	3410	2747	0006219	0000	14394														
095		OBS	0000	-0185	34100	2747			14394														
		STD	0010	-0185	3410	2747	0006213	0006	14396														
		OBS	0010	-0185	34100	2747			14396														
006		OBS	0016	-0185	34100	2747			14397														
		STD	0020	-0175	3435	2767	0004317	0011	14406														
		OBS	0020	-0175	34349	2767			14406														
		OBS	0025	-0163	34450	2775			14414														
		STD	0030	-0164	3446	2776	0003488	0015	14414														
		OBS	0030	-0164	34460	2776			14414														
		OBS	0040	-0166	34467	2776			14415														
		STD	0050	-0160	3449	2778	0003258	0022	14420														
		OBS	0050	-0160	34490	2778			14420														
		STD	0075	-0142	3451	2779	0003147	0030	14433														
		OBS	0075	-0142	34510	2779			14433														
		STD	0100	-0128	3453	2780	0003028	0038	14444														
		OBS	0100	-0128	34530	2780			14444														
		STD	0125	-0100	3456	2782	0002892	0045	14461														
		OBS	0125	-0100	34560	2782			14461														
		STD	0150	-0050	3460	2783	0002793	0052	14489														
		OBS	0150	-0050	34600	2783			14489														
		STD	0200	0000	3465	2785	0002652	0066	14521														
		OBS	0200	0000	34651	2785			14521														
		STD	0250	0016	3466	2784	0002710	0079	14537														
		OBS	0250	0016	34655	2784			14537														
		STD	0300	0021	3466	2784	0002701	0093	14548														
		OBS	0300	0021	34660	2784			14548														
		STD	0400	0029	3467	2784	0002677	0120	14568														
		OBS	0400	0029	34670	2784			14568														
		STD	0500	0031	3467	2785	0002678	0147	14586														
		OBS	0500	0031	34672	2785			14586														
		STD	0600	0028	3467	2785	0002661	0173	14601														
		OBS	0600	0028	34672	2785			14601														
		STD	0700	0026	3467	2785	0002649	0200	14617														
		OBS	0700	0026	34672	2785			14617														
		STD	0800	0023	3467	2785	0002629	0226	14632														
		OBS	0800	0023	34672	2785			14632														
		STD	0900	0017	3467	2785	0002584	0252	14646														
		OBS	0900	0017	34672	2785			14646														
		STD	1000	0016	3467	2785	0002591	0278	14662														
		OBS	1000	0016	34670	2785			14662														
		STD	1100	0013	3467	2785	0002566	0304	14678														
		OBS	1100	0013	34670	2785			14678														
		STD	1200	0009	3467	2786	0002532	0329	14693														
		OBS	1200	0009	34670	2786			14693														
		STD	1300	0004	3467	2786	0002488	0355	14708														
		OBS	1300	0004	34670	2786			14708														
		STD	1400	0001	3467	2786	0002458	0379	14723														
		OBS	1400	0001	34670	2786			14723														
		STD	1500	-0003	3467	2786	0002426	0404	14738														
		OBS	1500	-0003	34669	2786			14738														
		OBS	1600	-0006	34668	2786			14754														
		OBS	1700	-0008	34667	2786			14770														
		STD	1750	-0010	3466	2786	0002384	0464	14778														
		OBS	1800	-0012	34660	2786			14785														
		OBS	1900	-0014	34660	2786			14801														
		STD	2000	-0015	3466	2786	0002346	0523	14818														
		OBS	2000	-0015	34660	2786			14818														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	MARSCON SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318037	GL	700985	043419W	556	03	03	02	180	1968		038		3713	10	00	0	X		X7	4	8		0049
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WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB			

		14	S18	855		-030	6	15		
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND DENSITY	Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	-0177	3390	2731	0007767	0000	14395	780							
169		OBS	0000	-0177	33901	2731			14395	780	186					087	810
		STD	0010	-0179	3390	2731	0007771	0008	14396	800							
169		OBS	0010	-0179	33899	2731			14396	800	193					086	813
		STD	0020	-0158	3432	2764	0004584	0014	14413	733							
169		OBS	0025	-0152	34463	2776			14419	707	204					089	812
		STD	0030	-0156	3447	2776	0003435	0018	14418	697							
		STD	0050	-0169	3448	2777	0003310	0025	14415	663							
169		OBS	0051	-0170	34484	2778			14415	662	214					092	805
		STD	0075	-0171	3449	2778	0003215	0033	14419	632							
169		OBS	0077	-0171	34493	2778			14419	630	223					092	803
		STD	0100	-0162	3451	2779	0003096	0041	14427	611							
169		OBS	0103	-0161	34509	2780			14428	609	229					095	804
		STD	0125	-0150	3452	2780	0003020	0048	14437	606							
		STD	0150	-0129	3454	2781	0002927	0056	14452	594							
169		OBS	T0155	-0123	34542	2781			14455	590	226					092	801
		STD	0200	-0051	3460	2783	0002779	0070	14497	537							
169		OBS	0206	-0043	34606	2783			14502	532	233					096	799
		STD	0250	-0016	3463	2784	0002721	0084	14522	515							
		STD	0300	0005	3465	2784	0002683	0097	14540	500							
169		OBS	T0311	0009	34654	2784			14544	498	238					102	796
		STD	0400	0019	3466	2784	0002690	0124	14563	490							
169		OBS	0412	0020	34664	2784			14566	489	237					106	794
		STD	0500	0026	3467	2785	0002660	0151	14583	483							
169		OBS	T0518	0027	34673	2785			14587	482	240					107	792
		STD	0600	0025	3467	2785	0002642	0177	14600	482							
169		OBS	0615	0025	34672	2785			14602	482	241					113	792
		STD	0700	0024	3467	2785	0002636	0204	14616	486							
169		OBS	T0717	0024	34672	2785			14619	487	237					113	796
		STD	0800	0020	3467	2785	0002607	0230	14631	489							
169		OBS	0818	0019	34672	2785			14633	490	240					116	795
		STD	0900	0015	3467	2785	0002584	0256	14645	493							
		STD	1000	0011	3467	2785	0002552	0282	14660	496							
169		OBS	T1015	0010	34666	2785			14662	497	243					111	797

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN		STATION TIME		YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE			WEA-	CLOUD		NUC
					10"	1"	MO	DAY		CRUISE	STATION			DIR	HGT	PER		TYPE	AMT	
318037	GL	71093S	043437W	556	13	03	03	060	1968	C39		3365	20	00	0	X		X1	03	0050

WATER		WIND		BARO-	AIR TEMP. °C		VIS.	NO.	SPECIAL
COLOR	TRANS.	DIR.	SPEED		DRY	WET			
CODE	(m)		OR FORCE	METER	BULB	BULB	CODE	DEPTHS	OBSERVATIONS
DT	SD	21	506	868	-042	7	34		

MESSAGE	CARD	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	SiO ₄ -Si	pH	TEMP
TIME	NO.	TYPE					ANOMALY-20°	DTN. M.	VELOCITY		μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l		
HR 1/10								° 10'									
		STD	0000	-0184	3390	2731	0007767	0000	14392								
070		OBS	0000	-0184	33899	2731			14392								
		STD	0010	-0184	3391	2732	0007644	0008	14394								
		OBS	0010	-0184	33914	2732			14394								
004		OBS	0017	-0184	33917	2732			14395								
		STD	0020	-0154	3443	2773	0003759	0013	14417								
		OBS	0020	-0154	34429	2773			14417								
		OBS	0025	-0170	34460	2776			14411								
		STD	0030	-0173	3447	2777	0003396	0017	14410								
		OBS	0030	-0173	34469	2777			14410								
		OBS	0040	-0176	34490	2778			14411								
		STD	0050	-0177	3450	2779	0003144	0024	14412								
		OBS	0050	-0177	34499	2779			14412								
		STD	0075	-0172	3452	2781	0002997	0031	14419								
		OBS	0075	-0172	34518	2781			14419								
		STD	0100	-0154	3453	2781	0002951	0039	14431								
		OBS	0100	-0154	34529	2781			14431								
		OBS	0112	-0141	34549	2782			14440								
		OBS	0121	-0148	34527	2781			14438								
		STD	0125	-0136	3453	2780	0002998	0046	14444								
		OBS	0125	-0136	34529	2780			14444								
		STD	0150	-0087	3463	2787	0002409	0053	14473								
		OBS	0150	-0087	34629	2787			14473								
		STD	0200	-0021	3467	2787	0002403	0065	14512								
		OBS	0200	-0021	34669	2787			14512								
		STD	0250	0004	3465	2784	0002687	0078	14531								
		OBS	0250	0004	34649	2784			14531								
		STD	0300	0003	3464	2784	0002717	0091	14539								
		OBS	0300	0003	34644	2784			14539								
		STD	0400	0016	3466	2785	0002656	0118	14562								
		OBS	0400	0016	34662	2785			14562								
		STD	0500	0022	3467	2785	0002641	0144	14581								
		OBS	0500	0022	34669	2785			14581								
		STD	0600	0023	3467	2785	0002649	0171	14599								
		OBS	0600	0023	34669	2785			14599								
		STD	0700	0021	3467	2785	0002636	0197	14614								
		OBS	0700	0021	34669	2785			14614								
		STD	0800	0016	3467	2785	0002600	0223	14629								
		OBS	0800	0016	34669	2785			14629								
		STD	0900	0016	3467	2785	0002599	0249	14646								
		OBS	0900	0016	34669	2785			14646								
		STD	1000	0013	3467	2785	0002575	0275	14661								
		OBS	1000	0013	34669	2785			14661								
		STD	1100	0007	3467	2786	0002526	0301	14675								
		OBS	1100	0007	34669	2786			14675								
		STD	1200	0005	3467	2786	0002507	0326	14691								
		OBS	1200	0005	34669	2786			14691								
		STD	1300	0000	3467	2786	0002462	0351	14706								
		OBS	1300	0000	34669	2786			14706								
		STD	1400	-0004	3467	2786	0002452	0375	14721								
		OBS	1400	-0004	34665	2786			14721								
		STD	1500	-0007	3466	2786	0002428	0400	14736								
		OBS	1500	-0007	34664	2786			14736								
		OBS	1600	-0010	34662	2786			14752								
		OBS	1700	-0013	34660	2786			14768								
		STD	1750	-0014	3466	2786	0002376	0460	14776								
		OBS	1800	-0015	34659	2786			14784								
		OBS	1900	-0017	34659	2786			14800								
		STD	2000	-0019	3466	2786	0002314	0519	14816								
		OBS	2000	-0019	34659	2786			14816								

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARKSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10°	1°	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		TYPE	AMT		
					COLOR CODE	TRANS. UNIT	DIR.		SPEED OR FORCE	BARO- METER (mb)			AIR TEMP. °C	VIS CODE	NO. OBS. DEPTH		SPECIAL OBSERVATIONS			
318037	GL	710935	043437W	556	13	03	03 06 00	1968		039	3437	54	00	0	X		X1	6 7		0051
					WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB									
							21		506	868	-042 7 29									
MESSNGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	Si O ₄ -Si μg - dl/l	pH	S C C			
		STD	0000	-0180	3391	2731		0007714	0000	14394	776									
061	OBS	0000	-0180	33907	2731					14394	776	197				086	808			
	STD	0010	-0181	3390	2731		0007728	0008		14395	782									
061	OBS	0010	-0181	33904	2731					14395	782	195				086	808			
	STD	0020	-0181	3391	2732		0007667	0015		14397	796									
061	OBS	0026	-0181	33915	2732					14398	805	196				086	808			
	STD	0030	-0179	3403	2741		0006751	0023		14401	780									
	STD	0050	-0173	3446	2776		0003453	0033		14413	685									
061	OBS	0052	-0172	34488	2778					14414	678	212				088	805			
	STD	0075	-0169	3450	2779		0003143	0041		14420	672									
	STD	0100	-0166	3451	2780		0003063	0049		14426	658									
061	OBS	0104	-0165	34516	2780					14427	655	218				090	804			
	STD	0125	-0150	3452	2780		0003020	0056		14437	626									
	STD	0150	-0125	3454	2781		0002941	0064		14454	604									
061	OBS	0156	-0118	34544	2781					14458	600	219				094	801			
	STD	0200	-0048	3460	2783		0002793	0078		14498	598									
061	OBS	T0205	-0042	34605	2783					14502	598	230				102	800			
	STD	0250	-0001	3464	2784		0002727	0092		14529	519									
061	OBS	0259	0004	34643	2784					14533	510	231				103	797			
	STD	0300	0005	3465	2784		0002712	0106		14540	504									
061	OBS	T0312	0005	34647	2784					14542	502	235				102	798			
	STD	0400	0015	3466	2784		0002680	0133		14561	492									
061	OBS	0413	0016	34660	2784					14564	491	234				102	796			
	STD	0500	0021	3467	2785		0002657	0159		14581	480									
061	OBS	T0514	0022	34667	2785					14584	479	235				113	797			
	STD	0600	0023	3467	2785		0002648	0186		14598	484									
061	OBS	0615	0023	34669	2785					14601	485	236				114	796			
	STD	0700	0025	3467	2785		0002655	0212		14616	488									
061	OBS	0715	0025	34674	2785					14619	489	237								
	STD	0800	0023	3467	2785		0002617	0239		14632	480									
061	OBS	0815	0022	34673	2785					14634	479	236				114	794			
	STD	0900	0022	3467	2785		0002637	0265		14648	482									
028	OBS	T0987	0016							485		242				113	793			
	STD	1000	0014	3467	2785		0002576	0291		14661	487									
061	OBS	T1015	0013	34669	2785					14664	489	242				113	792			
028	OBS	T1087	0012	34666	2785					14675	497	246				118	796			
	STD	1100	0011	3467	2785		0002580	0317		14677	497									
	STD	1200	0007	3466	2785		0002560	0342		14692	500									
028	OBS	1289	0003	34663	2785					14705	502	251				120	791			
	STD	1300	0003	3466	2785		0002531	0368		14707	502									
	STD	1400	-0001	3466	2785		0002500	0393		14722	505									
	STD	1500	-0004	3466	2786		0002476	0418		14738	508									
028	OBS	1593	-0007	34660	2786					14752	510	248				120	794			
	STD	1750	-0012	3466	2786		0002395	0479		14777	517									
028	OBS	1896	-0016	34659	2786					14800	523	254				120	793			
	STD	2000	-0019	3466	2786		0002314	0538		14816	526									
028	OBS	2199	-0022	34658	2786					14849	532	255				121	793			
	STD	2500	-0024	3465	2786		0002250	0652		14900	541									
028	OBS	2505	-0024	34654	2786					14901	541	254				121	789			
028	OBS	2811	-0029	34654	2786					14952	548	255				113	796			
	STD	3000	-0031	3465	2786		0002144	0762		14984	558									
028	OBS	3119	-0035	34648	2786					15003	562	258				115	797			
028	OBS	3325	-0046	34641	2786					15034	564	253				113	795			
028	OBS	3350	-0051	34636	2786					15036	571	253				103	794			
028	OBS	T3375	-0053	34643	2786					15040	582	251				102	794			
028	OBS	T3402	-0064	34641	2787					15039	589	248				103	798			
028	OBS	T3428	-0074	34639	2787					15039	596	248				102	798			

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT 10'	M/R SOEN		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAT. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- TER CODE	CLOUD CODES		NOCC STATION NUMBER
CTRY CODE	IO. NO.					10'	1'	MO	DAY	HR.		1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA	
318037	GL		71476S	040413W	556	10	03	03	180	1968		040	3371	10	00	0	X	X1	6	7		0052

WATER	WIND	BARO-	AIR TEMP. °C	VIS.	NO.	SPECIAL
COLOP	TRANSL	SPEED	DRY	WET	CODE	OBS.
CODE	(m)	OR	BULB	BULB		DEPTHS
		FORCE				OBSERVATIONS
		20	506	885	-051	7

MESSENGR	CAS	CARD	DEPTH	T °C	S %	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SiO ₄ -Si	pH	S
TIME	NO.	TYPE	(m)				ANOMALY-1810	OTN. M.	VELOCITY	m ³ /l	μg - dl/l	μg - dl/l	μg - dl/l	μg - dl/l	μg - dl/l		C
HR 1/10								X 10 ³									
		STD	0000	-0179	3358	2704	0010253	0000	14390	806							
170		OBS	0000	-0179	33577	2704			14390	806	182					072	814
		STD	0010	-0179	3357	2704	0010292	0010	14391	811							
170		OBS	0010	-0179	33571	2704			14391	811	231					071	814
		STD	0020	-0148	3398	2736	0007220	0019	14413	791							
170		OBS	0026	-0138	34164	2751			14422	777	200					076	803
		STD	0030	-0143	3423	2756	0005311	0025	14421	764							
		STD	0050	-0160	3447	2776	0003412	0034	14420	712							
170		OBS	0052	-0161	34484	2777			14420	708	212					081	797
		STD	0075	-0162	3450	2779	0003163	0042	14423	678							
170		OBS	0077	-0162	34502	2779			14424	675	225					082	805
		STD	0100	-0144	3451	2779	0003128	0050	14436	629							
170		OBS	0103	-0142	34514	2779			14437	625	220					083	803
		STD	0125	-0140	3452	2780	0003047	0058	14442	625							
		STD	0150	-0137	3453	2780	0002992	0065	14448	624							
170		OBS	T0156	-0136	34530	2780			14449	624	227					083	791
		STD	0200	-0067	3458	2782	0002856	0080	14489	622							
170		OBS	0206	-0059	34585	2782			14494	620	278					093	788
		STD	0250	-0026	3461	2783	0002820	0094	14517	560							
		STD	0300	0002	3464	2784	0002741	0108	14539	513							
170		OBS	T0313	0007	34643	2784			14543	505	282					102	788
		STD	0400	0023	3466	2784	0002730	0135	14565	495							
170		OBS	0411	0024	34660	2784			14567	494	239					104	787
		STD	0500	0024	3466	2784	0002692	0163	14582	491							
170		OBS	T0514	0024	34665	2784			14585	491	231					107	781
		STD	0600	0025	3467	2785	0002669	0189	14599	488							
170		OBS	0614	0025	34669	2785			14602	487	236					108	789
		STD	0700	0032	3468	2785	0002652	0216	14619	484							
170		OBS	T0717	0033	34678	2785			14623	483	236					114	777
		STD	0800	0028	3468	2785	0002635	0242	14634	485							
170		OBS	0816	0027	34676	2785			14637	485	234					115	781
		STD	0900	0023	3467	2785	0002645	0269	14649	486							
		STD	1000	0020	3467	2785	0002622	0295	14664	487							
170		OBS	T1018	0020	34664	2784			14667	487	238					115	782

REFERENCE		SHIP		LATITUDE		LONGITUDE		WAVE		ORIGINATOR'S		DEPTH		MAX. DEPTH		WAVE		WEA-		CLOUD		NOOC	
CITY	ID.	CODE	NO.	1/10	1/10	INCHES	MO	DAY	HR.1/10	YEAR	CRUISE	STATION	TO	BTM	OF	SAMPL'S	DIR	HGT	PER	SEA	TYPE	AMT	STATION
318037	GL	71118S	039017W	555	19	03	04	060	1968		041		3813	20	00	0	X		X1	0	3		0053
		WATER		WIND		BARO-		AIR TEMP. °C		VIS.		NO.		SPECIAL									
		COLOR		TRANS.		DIR.		SPEED		OR		FORCE		METER		DRY		WET		BULB		BULB	
		CODE		mm		mbs		mbs		mbs		mbs		mbs		mbs		mbs		mbs		mbs	
		DT	SD	00	500	921			-033	7	30												
MESSNGR	CAST	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Σ Δ σ	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SiO ₄ -Si	pH							
TIME	NO.	TYPE					ANOMALY-σ _t ?	DYN. M.	VELOCITY		μg - at/l	μg - at/l	μg - at/l	μg - at/l	μg - at/l								
		STD	0000	-0185	3353	2700	0010640	0000	14386														
062		OBS	0000	-0185	33525	2700			14386														
		STD	0010	-0177	3363	2708	0009881	0010	14393														
		OBS	0010	-0177	33625	2708			14393														
002		STD	0020	-0142	3445	2774	0003671	0017	14423														
		OBS	0020	-0142	34445	2774			14423														
		OBS	0025	-0160	34455	2775			14415														
		STD	0030	-0166	3447	2776	0003445	0021	14413														
		OBS	0030	-0166	34465	2776			14413														
		STD	0050	-0179	3450	2779	0003131	0027	14411														
		OBS	0050	-0179	34500	2779			14411														
		STD	0075	-0175	3454	2782	0002858	0035	14418														
		OBS	0075	-0175	34535	2782			14418														
		STD	0100	-0160	3454	2782	0002849	0042	14429														
		OBS	0100	-0160	34540	2782			14429														
		STD	0125	-0132	3457	2783	0002736	0049	14446														
		OBS	0125	-0132	34565	2783			14446														
		STD	0150	-0100	3459	2784	0002692	0056	14466														
		OBS	0150	-0100	34585	2784			14466														
		STD	0200	-0037	3468	2788	0002276	0068	14505														
		OBS	0200	-0037	34675	2788			14505														
		STD	0250	-0010	3464	2784	0002647	0080	14525														
		OBS	0250	-0010	34644	2784			14525														
		STD	0300	-0009	3464	2784	0002649	0094	14534														
		OBS	0300	-0009	34644	2784			14534														
		STD	0400	0012	3467	2785	0002601	0120	14560														
		OBS	0400	0012	34666	2785			14560														
		STD	0500	0021	3467	2785	0002657	0146	14581														
		OBS	0500	0021	34666	2785			14581														
		STD	0600	0020	3467	2785	0002644	0173	14597														
		OBS	0600	0020	34667	2785			14597														
		STD	0700	0019	3467	2785	0002599	0199	14613														
		OBS	0700	0019	34672	2785			14613														
		STD	0800	0016	3467	2785	0002570	0225	14629														
		OBS	0800	0016	34673	2785			14629														
		STD	0900	0013	3467	2785	0002592	0250	14644														
		OBS	0900	0013	34667	2785			14644														
		STD	1000	0008	3467	2785	0002559	0276	14659														
		OBS	1000	0008	34666	2785			14659														
		STD	1100	0004	3467	2785	0002532	0302	14674														
		OBS	1100	0004	34665	2785			14674														
		STD	1200	0003	3467	2786	0002513	0327	14690														
		OBS	1200	0003	34666	2786			14690														
		STD	1300	-0001	3467	2786	0002483	0352	14705														
		OBS	1300	-0001	34665	2786			14705														
		STD	1400	-0003	3467	2786	0002461	0377	14721														
		OBS	1400	-0003	34665	2786			14721														
		STD	1500	-0006	3467	2786	0002429	0401	14737														
		OBS	1500	-0006	34665	2786			14737														
		OBS	1600	-0011	34664	2786			14752														
		OBS	1700	-0013	34663	2786			14768														
		STD	1750	-0014	3466	2786	0002354	0461	14776														
		OBS	1800	-0015	34663	2786			14784														
		OBS	1900	-0017	34660	2786			14800														
		STD	2000	-0018	3466	2786	0002316	0519	14817														
		OBS	2000	-0018	34660	2786			14817														

REFERENCE CITY CODE	IO. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	ARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOON STATION NUMBER				
						10"	1'	MO	OAT	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT					
318037		GL	71118S	039017W		555	19	03	04	060	1968		041	3895	39	00	0	X		X1	6	7		0054			
						WA-T-R		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
						COLOR CODE	TRANS. m)	OIR.	SPEED OR FORCE			DRY BULB	WET BULB														
								00	S00	921			-033	7	30												
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DTN, M. $\times 10^3$		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	Si O ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S °C								
		STD	0000	-0178	3356	2703	0010386		0000		14390	791															
056		OBS	0000	-0178	33560	2703					14390	791	182				079	810									
		STD	0010	-0179	3355	2702	0010445		0010		14391	792															
056		OBS	0010	-0179	33551	2702					14391	792	177				079	811									
		STD	0020	-0168	3365	2710	0009702		0020		14399	782															
056		OBS	0025	-0164	33732	2717					14403	773	198				081	812									
		STD	0030	-0165	3392	2732	0007630		0029		14406	755															
		STD	0050	-0168	3448	2777	0003314		0040		14416	695															
056		OBS	0051	-0168	34500	2779					14416	693	220				082	810									
		STD	0075	-0169	3451	2779	0003096		0048		14420	664															
		STD	0100	-0171	3451	2780	0003032		0056		14423	638															
056		OBS	0102	-0171	34512	2780					14424	636	242				084	809									
		STD	0125	-0156	3452	2780	0003002		0063		14435	620															
		STD	0150	-0134	3454	2781	0002909		0071		14449	601															
056		OBS	0153	-0131	34544	2781					14451	598	238				086	805									
		STD	0200	-0070	3459	2783	0002767		0085		14488	553															
056		OBS	0205	-0064	34592	2783					14492	548	254				088	802									
		STD	0250	-0012	3463	2783	0002742		0099		14524	507															
056		OBS	0256	-0008	34637	2784					14527	504	249				092	799									
		STD	0300	-0007	3464	2784	0002690		0112		14534	503															
056		OBS	T0307	-0006	34640	2784					14536	503	248				092	798									
		STD	0400	0011	3465	2784	0002716		0139		14559	493															
056		OBS	0409	0012	34656	2784					14562	492	258				092	797									
		STD	0500	0021	3466	2784	0002703		0166		14581	486															
056		OBS	T0513	0022	34663	2784					14583	485	256				096	800									
		STD	0600	0022	3467	2785	0002642		0193		14598	483															
056		OBS	0611	0022	34670	2785					14600	483	255				098	798									
		STD	0700	0020	3467	2785	0002623		0219		14614	485															
056		OBS	T0718	0020	34667	2785					14617	485	263				100	797									
		STD	0800	0017	3467	2785	0002616		0246		14629	479															
056		OBS	T0806	0017	34668	2785					14630	478	257				099	791									
		STD	0900	0015	3467	2785	0002599		0272		14645	484															
		STD	1000	0010	3467	2785	0002567		0298		14660	490															
056		OBS	T1009	0009	34667	2785					14661	491	263				100	782									
023		OBS	1032	0007	34666	2785					14664	498	267				100	784									
		STD	1100	0005	3467	2785	0002533		0323		14674	499															
023		OBS	1134	0004	34650	27840					500	275					101	784									
		STD	1200	0002	3467	2786	0002505		0348		14690	503															
		STD	1300	-0001	3467	2786	0002476		0373		14705	508															
023		OBS	1339	-0002	34640	27840					510	258					101	784									
		STD	1400	-0004	3467	2786	0002445		0398		14721	513															
		STD	1500	-0007	3467	2786	0002406		0422		14736	517															
023		OBS	1647	-0011	34630	27830					521	265					101	784									
		STD	1750	-0012	3467	2786	0002343		0481		14777	522															
023		OBS	1954	-0014	34667	2787					14811	524	262				103	785									
		STD	2000	-0015	3467	2786	0002302		0539		14818	525															
023		OBS	2259	-0021	34662	2786					14860	532	267				104	787									
		STD	2500	-0026	3466	2786	0002220		0652		14899	538															
023		OBS	T2552	-0027	34653	2786					14908	539	272				105	768									
023		OBS	2870	-0027	34658	2786					14963	537	260				112	787									
		STD	3000	-0028	3466	2786	0002122		0761		14985	543															
023		OBS	3176	-0030	34659	2787					15015	549	252				110	786									
023		OBS	T3482	-0034	34650	2786					15067	557	250				110	783									
023		OBS	3790	-0044	34638	2786					15117	560	256				100	784									
023		OBS	3815	-0047	34637	2786					15120	562	267				100	767									
023		OBS	3841	-0048	34634	2785					15124	566	254				100	777									
023		OBS	T3868	-0054	34624	2785					15126	566	272				100	784									
023		OBS	T3890	-0068	34608	2784					15124	573	267				100										

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR.1/10	MARSOEN SQUARE				STATION TIME (GMT)				YEAR	ORIGINATOR'S				DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
					10°		1°		MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS			DIR.	NGT	PER	SEA		TYPE	AMT				
					WA**R		WIND																					BARO- METER (mba)	AIR TEMP. °C	
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE																					DRY BULB	WET BULB
318037	GL	70215S	037448W	555	07	03	04	180	1968		042			4023	40	00	0	X		X1	6	7			0055					
							08	507	928		-036		7	31																
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDALTY-307		Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si O ₂ -Si μg - at/l	pH													
		STD	0000	-0144	3365	2709	0009806		0000	14407	808																			
193		OBS	0000	-0144	33646	2709				14407	808	153					069 809													
		STD	0010	-0144	3364	2709	0009823		0010	14409	809																			
193		OBS	0010	-0144	33643	2709				14409	809	156					069 814													
		STD	0020	-0140	3368	2711	0009568		0020	14413	808																			
193		OBS	0026	-0137	33697	2713				14416	807	162					071 809													
		STD	0030	-0144	3387	2727	0008069		0028	14415	777																			
		STD	0050	-0169	3446	2776	0003464		0040	14415	672																			
193		OBS	0052	-0171	34497	2779				14415	665	226					095 795													
		STD	0075	-0174	3451	2780	0003069		0048	14418	643																			
193		OBS	0078	-0174	34509	2780				14418	641	226					097 798													
		STD	0100	-0170	3451	2780	0003050		0056	14424	640																			
193		OBS	0104	-0168	34516	2780				14425	639	230					099 795													
		STD	0125	-0147	3453	2781	0002954		0063	14439	616																			
		STD	0150	-0119	3455	2781	0002910		0071	14456	591																			
193		OBS	0155	-0113	34550	2781				14460	586	235					100 792													
		STD	0200	-0051	3460	2783	0002779		0085	14497	549																			
193		OBS	0207	-0044	34605	2783				14502	544	240					100 784													
		STD	0250	-0021	3462	2783	0002770		0099	14519	519																			
		STD	0300	-0002	3464	2784	0002719		0112	14537	501																			
193		OBS	T0310	0001	34642	2784				14540	498	244					100 779													
		STD	0400	0011	3465	2784	0002716		0139	14559	496																			
193		OBS	0411	0012	34652	2784				14562	496	241					100 786													
		STD	0500	0022	3466	2784	0002709		0167	14581	490																			
193		OBS	T0512	0023	34661	2784				14584	489	245					100 788													
		STD	0600	0027	3467	2785	0002665		0193	14600	480																			
193		OBS	0612	0027	34671	2785				14602	479	245					110 782													
		STD	0700	0025	3467	2785	0002644		0220	14616	478																			
193		OBS	0714	0025	34672	2785				14619	478	246					115 783													
		STD	0800	0022	3467	2785	0002636		0246	14632	480																			
193		OBS	T0815	0021	34668	2785				14634	485	250					116 790													
170		OBS	T0884	0017	34677	2786				14643	529	240					118 790													
		STD	0900	0016	3468	2786	0002547		0272	14646	527																			
170		OBS	T0979	0013	34672	2786				14657	515	236					119 794													
		STD	1000	0013	3467	2785	0002568		0298	14661	500																			
193		OBS	T1015	0013	34666	2785				14663	491	242					119 792													
		STD	1100	0009	3467	2785	0002557		0324	14676	508																			
170		OBS	1189	0006	34668	2786				14690	521	236					119 793													
		STD	1200	0006	3467	2786	0002523		0349	14691	521																			
		STD	1300	0002	3467	2786	0002501		0374	14707	525																			
		STD	1400	-0001	3466	2786	0002485		0399	14722	528																			
170		OBS	T1477	-0003	34662	2786				14734	531	243					120 792													
		STD	1500	-0004	3466	2786	0002469		0424	14738	532																			
		STD	1750	-0010	3466	2786	0002406		0485	14777	544																			
170		OBS	1789	-0011	34661	2786				14784	545	240					120 789													
		STD	2000	-0016	3466	2786	0002336		0544	14818	547																			
170		OBS	2089	-0018	34657	2786				14832	550	245					119 789													
170		OBS	2389	-0023	34654	2786				14881	566	234					117 788													
		STD	2500	-0025	3465	2786	0002239		0658	14900	567																			
170		OBS	2689	-0028	34653	2786				14931	569	243					111 788													
170		OBS	T2993	-0028	34652	2786				14984	555	264					111 778													
		STD	3000	-0028	3465	2786	0002165		0768	14985	555																			
170		OBS	3289	-0029	34654	2786				15035	557	254					111 777													
170		OBS	3589	-0033	34652	2786				15087	561	250					111 774													
170		OBS	3889	-0038	34644	2786				15137	562	250					111 772													
170		OBS	3914	-0040	34646	2786				15141	566	249					110 771													
170		OBS	3939	-0039	34643	2786				15146	563	244					107 771													
170		OBS	T3986	-0042	34638	2786				15153	566	246					107 772													
		STD	4000	-0042	3464	2786	0001954		0974	15155	563																			
170		OBS	T4013	-0042	34639	2786				15158	558	246					100 779													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	HR	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER					
CTRY CODE	ID. NO.								CRUISE NO.	STATION NUMBER		MAX. DEPTH OF STMPLS	DIR	HGT PER				SEA				
318037	GL		69292S	036522W	519	96	03	05	060	1968		043	4219	42	00	0	X	X7	6	6		0056
		WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	CRY BULB		WET BULB		VIS. CODE												
						02	508	926		-015	6	30										
MESSAGE TIME HR 1/10	CAST OF NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- $\sigma_t \times 10^3$		$\Sigma \Delta \sigma$ OYN. M. $\times 10^3$	SOUND VELOCITY		O ₂ ml/l	PO ₄ -P $\mu\text{g} \pm 0.1/\text{l}$	TOTAL-P $\mu\text{g} \pm 0.1/\text{l}$	NO ₃ -N $\mu\text{g} \pm 0.1/\text{l}$	NO ₃ -N $\mu\text{g} \pm 0.1/\text{l}$	SiO ₄ -Si $\mu\text{g} \pm 0.1/\text{l}$	pH	S C		
		STD	0000	-0103	3380	2720		0008777		0000	14429		796									
074		OBS	0000	-0103	33796	2720					14429		796									
		STD	0010	-0106	3379	2720		0008801		0009	14429		798									
074		OBS	0010	-0106	33791	2720					14429		798									
		STD	0020	-0113	3383	2723		0008474		0017	14428		804									
074		OBS	0024	-0118	33878	2727					14427		807									
		STD	0030	-0133	3406	2742		0006644		0025	14423		766									
074		OBS	0049	-0166	34476	2777					14417		666									
		STD	0050	-0166	3448	2777		0003319		0035	14417		665									
		STD	0075	-0163	3449	2778		0003236		0043	14422		642									
074		OBS	0098	-0161	34503	2779					14427		624									
		STD	0100	-0159	3450	2779		0003128		0051	14429		623									
		STD	0125	-0139	3452	2780		0003072		0059	14443		611									
074		OBS	0146	-0123	34530	2780					14454		600									
		STD	0150	-0121	3453	2780		0003017		0066	14455		598									
074		OBS	0194	-0090	34558	2781					14477		570									
		STD	0200	-0081	3457	2782		0002870		0081	14483		564									
		STD	0250	-0023	3461	2782		0002835		0095	14518		519									
074		OBS	0289	0006	34638	2783					14539		496									
		STD	0300	0007	3464	2783		0002770		0109	14541		494									
074		OBS	T0382	0016	34650	2784					14559		482									
		STD	0400	0018	3465	2783		0002759		0137	14563		481									
074		OBS	0478	0023	34650	2783					14578		478									
		STD	0500	0024	3465	2783		0002779		0165	14582		479									
074		OBS	T0574	0025	34657	2784					14595		480									
		STD	0600	0027	3466	2784		0002744		0192	14600		479									
074		OBS	0668	0031	34667	2784					14613		478									
		STD	0700	0032	3467	2784		0002729		0220	14619		477									
074		OBS	T0768	0033	34668	2784					14631		476									
		STD	0800	0032	3467	2784		0002726		0247	14636		476									
		STD	0900	0030	3467	2784		0002702		0274	14652		476									
074		OBS	T0954	0028	34669	2784					14660		476									
		STD	1000	0029	3467	2785		0002688		0301	14668		477									
074		OBS	T1091	0032	34675	2785					14685		480									
		STD	1100	0027	3467	2785		0002679		0328	14684		482									
024		OBS	T1117	0019	34667	2785					14683		486							788		
		STD	1200	0016	3467	2785		0002611		0354	14696		488									
		STD	1300	0012	3467	2785		0002580		0380	14711		490									
		STD	1400	0009	3467	2785		0002546		0406	14726		492									
024		OBS	1415	0008	34667	2785					14729		492							786		
		STD	1500	0006	3467	2785		0002528		0431	14742		498									
024		OBS	1710	0000	34663	2785					14775		510							786		
		STD	1750	-0001	3466	2785		0002494		0494	14781		512									
		STD	2000	-0010	3466	2786		0002397		0555	14820		523									
024		OBS	T2006	-0010	34657	2786					14821		523							785		
024		OBS	2305	-0018	34658	2786					14869		528							784		
		STD	2500	-0020	3466	2786		0002272		0672	14902		533									
024		OBS	2605	-0021	34657	2786					14920		536							780		
024		OBS	2905	-0025	34655	2786					14970		544							780		
		STD	3000	-0025	3466	2786		0002173		0783	14987		548									
024		OBS	3205	-0025	34657	2786					15023		554							778		
024		OBS	3505	-0030	34653	2786					15073		555							779		
024		OBS	T3801	-0030	34652	2786					15125		562							777		
		STD	4000	-0030	3465	2786		0002031		0993	15161		562									
024		OBS	4107	-0032	34652	2786					15179		562							777		
024		OBS	4157	-0033	34649	2786					15188		562							777		
024		OBS	4183	-0034	34653	2786					15192		564							781		
024		OBS	T4208	-0035	34651	2786					15196		563							778		
024		OBS	T4233	-0036	34645	2786					15200		555							780		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CITY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE
318037	GL	693375	039339W	519	99	03	05	150	1968		044		3995	10	00	0	X		X1	6	7	0057
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbs)		DRY BULB	WET BULB											
								07	S10	908		-011	7	15								

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C
		STD	0000	-0111	3383	2723	0008529	0000	14425	799							
145		OBS	0000	-0111	33825	2723			14425	799							
		STD	0010	-0113	3382	2723	0008525	0009	14426	800							
145		OBS	0010	-0113	33824	2723			14426	800							
		STD	0020	-0113	3385	2724	0008344	0017	14428	800							
145		OBS	0024	-0116	33856	2725			14427	800							
		STD	0030	-0132	3406	2742	0006647	0024	14424	753							
145		OBS	0049	-0165	34487	2778			14417	655							
		STD	0050	-0165	3449	2778	0003245	0034	14417	654							
145		OBS	0073	-0173	34505	2780			14418	637							
		STD	0075	-0174	3451	2780	0003091	0042	14418	636							
145		OBS	0098	-0176	34510	2780			14421	628							
		STD	0100	-0175	3451	2780	0003029	0050	14421	626							
		STD	0125	-0161	3452	2781	0002972	0057	14432	607							
145		OBS	T0146	-0149	34532	2781			14442	606							
		STD	0150	-0142	3454	2781	0002882	0065	14446	613							
145		OBS	0195	-0075	34585	2783			14485	655							
		STD	0200	-0070	3459	2783	0002767	0079	14488	644							
		STD	0250	-0029	3462	2783	0002728	0093	14516	550							
145		OBS	T0294	-0004	34639	2784			14535	499							
		STD	0300	-0003	3464	2784	0002713	0106	14536	498							
145		OBS	0392	0014	34656	2784			14560	487							
		STD	0400	0015	3466	2784	0002665	0133	14561	486							
145		OBS	T0490	0019	34663	2784			14578	483							
		STD	0500	0019	3466	2784	0002667	0160	14580	484							
145		OBS	0589	0017	34665	2785			14594	488							
		STD	0600	0018	3467	2785	0002645	0186	14596	487							
145		OBS	T0687	0021	34669	2785			14612	482							
		STD	0700	0021	3467	2785	0002636	0213	14614	481							
145		OBS	0782	0020	34670	2785			14628	480							
		STD	0800	0020	3467	2785	0002622	0239	14631	481							
		STD	0900	0017	3467	2785	0002592	0265	14646	485							
145		OBS	T0988	0014	34671	2785			14659	489							

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REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	WIND DIRECTION	WATERSIDE SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

318037	GL	70307S	040567W	556	00	03	06	060	1968		045		3877	20	00	0	X		X1	03	0059
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WATER		WIND		AIR TEMP. °C		SPECIAL OBSERVATIONS	
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)	QTY BULB	WET BULB	VIS. CODE
DT	SD	05	509	904		-024	6

MESSAGE TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PD4-P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SIO ₄ -Si $\mu g - dl/l$	pH	SCC
		STD	0000	-0167	3352	2700	0010710	0000	14395								
	068	OBS	0000	-0167	3352	2700			14395								
		STD	0010	-0172	3352	2699	0010730	0011	14394								
		OBS	0010	-0172	33516	2699			14394								
	005	OBS	0018	-0134	33631	2708			14415								
		STD	0020	-0150	3383	2724	0008358	0020	14410								
		OBS	0020	-0150	33831	2724			14410								
		OBS	0025	-0157	34460	2775			14417								
		STD	0030	-0161	3446	2777	0003374	0026	14416								
		OBS	0030	-0161	34476	2777			14416								
		STD	0050	-0176	3449	2779	0003200	0033	14412								
		OBS	0050	-0176	34492	2779			14412								
		STD	0075	-0178	3450	2779	0003103	0041	14416								
		OBS	0075	-0178	34502	2779			14416								
		STD	0100	-0164	3452	2781	0002983	0048	14427								
		OBS	0100	-0164	34521	2781			14427								
		STD	0125	-0136	3456	2783	0002753	0055	14445								
		OBS	0125	-0136	34561	2783			14445								
		STD	0150	-0111	3455	2781	0002901	0062	14460								
		OBS	0150	-0111	34552	2781			14460								
		STD	0200	-0051	3459	2782	0002847	0077	14497								
		OBS	0200	-0051	34591	2782			14497								
		STD	0250	-0008	3464	2784	0002719	0091	14526								
		OBS	0250	-0008	34636	2784			14526								
		STD	0300	0001	3464	2784	0002728	0104	14538								
		OBS	0300	0001	34641	2784			14538								
		STD	0400	0017	3465	2783	0002783	0132	14562								
		OBS	0400	0017	34646	2783			14562								
		STD	0500	0026	3466	2784	0002728	0159	14583								
		OBS	0500	0026	34661	2784			14583								
		STD	0600	0025	3467	2784	0002685	0187	14599								
		OBS	0600	0025	34666	2784			14599								
		STD	0700	0021	3467	2785	0002658	0213	14614								
		OBS	0700	0021	34666	2785			14614								
		STD	0800	0019	3467	2785	0002644	0240	14630								
		OBS	0800	0019	34666	2785			14630								
		STD	0900	0015	3467	2785	0002614	0266	14645								
		OBS	0900	0015	34666	2785			14645								
		STD	1000	0011	3466	2785	0002605	0292	14660								
		OBS	1000	0011	34663	2785			14660								
		STD	1100	0007	3466	2785	0002586	0318	14675								
		OBS	1100	0007	34661	2785			14675								
		STD	1200	0004	3466	2785	0002558	0344	14690								
		OBS	1200	0004	34661	2785			14690								
		STD	1300	0001	3466	2785	0002537	0369	14706								
		OBS	1300	0001	34660	2785			14706								
		STD	1400	-0003	3466	2785	0002528	0395	14721								
		OBS	1400	-0003	34656	2785			14721								
		STD	1500	-0006	3465	2785	0002526	0420	14737								
		OBS	1500	-0006	34652	2785			14737								
		OBS	1600	-0009	34652	2785			14752								
		OBS	1700	-0011	34652	2785			14768								
		STD	1750	-0013	3465	2785	0002444	0482	14776								
		OBS	1800	-0014	34651	2785			14784								
		OBS	1900	-0016	34651	2785			14800								
		STD	2000	-0018	3465	2785	0002382	0542	14817								
		OBS	2000	-0018	34651	2785			14817								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR. 1/10	MAPSCON SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE	
318037		GL	69315S	042356W	520	92	03	06	150	1968		046	3877	10	00	0	X		X2	7	8	0060
						WATER		WIND		BARO-METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
								04	509	876		-011	6	15								
MESSAGE TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TDAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	Σ CTD					
		STD	0000	-0152	3394	2733	0007520	0000	14408	817												
143	OBS	0000	-0152	33941	2733				14408	817							824					
	STD	0010	-0152	3394	2733	0007522	0008		14409	817												
143	OBS	0011	-0152	33939	2733				14409	817							824					
	STD	0020	-0154	3394	2733	0007519	0015		14410	819												
143	OBS	0026	-0155	33939	2733				14410	820							824					
	STD	0030	-0156	3406	2743	0006579	0022		14412	788												
	STD	0050	-0162	3446	2776	0003483	0032		14418	674												
143	OBS	0052	-0163	34487	2778				14419	666							819					
	STD	0075	-0174	3449	2778	0003207	0041		14418	636												
143	OBS	0078	-0175	34494	2779				14417	633							819					
	STD	0100	-0161	3451	2780	0003076	0048		14428	614												
143	OBS	0104	-0158	34514	2780				14430	611							815					
	STD	0125	-0135	3453	2780	0002993	0056		14445	598												
	STD	0150	-0106	3455	2781	0002936	0063		14463	581												
143	OBS	T0157	-0098	34560	2782				14468	575							811					
	STD	0200	-0043	3461	2783	0002741	0078		14501	533												
143	OBS	0206	-0037	34612	2783				14505	529							811					
	STD	0250	-0020	3463	2784	0002699	0091		14520	517												
	STD	0300	-0004	3464	2784	0002707	0105		14536	505												
143	OBS	T0306	-0002	34642	2784				14538	504							809					
	STD	0400	0020	3466	2784	0002703	0132		14564	488												
143	OBS	0408	0021	34660	2784				14565	487							807					
	STD	0500	0029	3467	2784	0002681	0159		14585	479												
143	OBS	T0509	0030	34673	2785				14587	478							808					
	STD	0600	0027	3468	2785	0002633	0185		14601	474												
143	OBS	0610	0027	34675	2785				14602	474							808					
	STD	0700	0027	3468	2785	0002633	0212		14617	476												
143	OBS	T0711	0027	34675	2785				14619	477							808					
	STD	0800	0024	3467	2785	0002623	0238		14633	483												
143	OBS	0810	0024	34674	2785				14634	484							807					
	STD	0900	0021	3467	2785	0002600	0264		14648	489												
	STD	1000	0017	3467	2785	0002576	0290		14663	494												
143	OBS	T1006	0017	34673	2785				14664	494							806					

REFERENCE CTRY IDR	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCHES	M/ROSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				CLOUD CODES		NODC STATION NUMBER
						10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	WVA- THER CODE	TYPE	AMT

318037	GL		68409S	040045W		520	80	03	07	060	1968	047		4178	38			0	2		X7	6	8		0061
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR	TRANS.	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			04	S10	891		018	4	30
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MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-x10 ³	Σ Δ σ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S C
		STD	0000	-0111	3393	2731	0007747	0000	14427	813							
047		OBS	0000	-0111	33927	2731			14427	813							820
		STD	0010	-0111	3392	2731	0007765	0008	14428	813							
047		OBS	0011	-0111	33924	2731			14428	813							820
		STD	0020	-0112	3393	2731	0007742	0016	14429	816							
047		OBS	0027	-0113	33928	2731			14430	818							820
		STD	0030	-0122	3402	2739	0006985	0023	14428	794							
		STD	0050	-0165	3445	2775	0005551	0033	14417	680							
047		OBS	0054	-0170	34494	2779			14416	666							816
		STD	0075	-0172	3450	2779	0003134	0042	14418	659							
047		OBS	0081	-0173	34506	2780			14419	655							811
		STD	0100	-0154	3452	2780	0003020	0049	14431	636							
047		OBS	0107	-0146	34525	2780			14436	629							809
		STD	0125	-0124	3454	2781	0002955	0057	14450	612							
		STD	0150	-0092	3457	2782	0002839	0064	14469	587							
047		OBS	T0168	-0068	34586	2782			14484	567							808
		STD	0200	-0017	3463	2784	0002720	0078	14513	525							
047		OBS	0215	0001	34646	2784			14524	510							807
		STD	0250	0006	3465	2784	0002691	0092	14532	503							
		STD	0300	0014	3465	2784	0002736	0105	14544	495							
047		OBS	T0322	0017	34657	2784			14549	492							804
		STD	0400	0031	3467	2784	0002720	0132	14569	490							
047		OBS	0430	0034	34670	2784			14575	488							804
		STD	0500	0035	3468	2785	0002646	0159	14588	479							
047		OBS	T0541	0036	34681	2785			14595	477							801
		STD	0600	0034	3468	2785	0002642	0186	14604	480							
047		OBS	0648	0033	34678	2785			14611	481							798
		STD	0700	0032	3468	2785	0002647	0212	14619	482							
047		OBS	T0756	0030	34677	2785			14628	482							796
		STD	0800	0026	3467	2785	0002666	0239	14633	484							
047		OBS	T0855	0022	34669	2785			14641	487							796
		STD	0900	0020	3467	2785	0002629	0265	14647	491							
		STD	1000	0016	3467	2785	0002595	0291	14662	500							
011		OBS	T1010	0015	34669	2785			14664	501							797
047		OBS	T1090	0012	34663	2785			14676	501							794
		STD	1100	0011	3466	2785	0002603	0317	14677	502							
		STD	1200	0006	3466	2785	0002575	0343	14691	509							
011		OBS	1256	0004	34660	2785			14700	512							794
		STD	1300	0003	3466	2785	0002554	0369	14707	514							
		STD	1400	0001	3466	2785	0002533	0394	14723	517							
		STD	1500	-0001	3466	2785	0002511	0419	14739	521							
011		OBS	1505	-0001	34660	2785			14740	521							793
		STD	1750	-0007	3466	2786	0002446	0481	14779	530							
011		OBS	T1770	-0007	34657	2785			14782	531							792
		STD	2000	-0013	3465	2785	0002422	0542	14819	533							
011		OBS	2023	-0013	34653	2785			14823	533							790
011		OBS	2290	-0018	34657	2786			14866	533							790
		STD	2500	-0021	3466	2786	0002275	0660	14901	540							
011		OBS	T2556	-0022	34654	2786			14911	544							788
011		OBS	2843	-0024	34664	2787			14960	581							786
		STD	3000	-0027	3466	2787	0002105	0769	14986	563							
011		OBS	3123	-0028	34660	2787			15007	556							786
011		OBS	T3402	-0028	34658	2786			15056	565							784
011		OBS	3695	-0029	34657	2786			15107	567							
011		OBS	3743	-0030	34658	2787			15115	568							780
011		OBS	3767	-0030	34655	2786			15119	567							780
011		OBS	T3793	-0031	34652	2786			15124	568							776
011		OBS	T3815	-0031	34645	2786			15127	570							777

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	SURF INCH	% RSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODE	NODC STATION NUMBER			
CTRY CODE	ID. NO.					10"	1"	M ²	DAY	HR		1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER				SEA	TYPE	PA
318037	GL	68409S	040045W	520	80	03	07	090	1968		047		4178	20		2	2		X7	03		0062			
						WAVE		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB													
					DT	SD	03	S13	892		-015	7	32												
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t x 10 ³	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - 01/1	TOTAL-P μg - 01/1	NO ₂ -N μg - 01/1	NO ₃ -N μg - 01/1	SiO ₄ -Si μg - 01/1	pH	S C C								
		STD	0000	-0111	3390	2728	0007985	0000	14426																
072		OBS	0000	-0111	33896	2728			14426																
		STD	0010	-0114	3390	2729	0007932	0008	14427																
		OBS	0010	-0114	33901	2729			14427																
		STD	0020	-0115	3391	2730	0007847	0016	14428																
005		OBS	0020	-0115	33911	2730			14428																
		OBS	0025	-0166	34456	2775			14412																
		STD	0030	-0169	3447	2777	0003391	0021	14412																
		OBS	0030	-0169	34471	2777			14412																
		STD	0050	-0179	3449	2779	0003200	0028	14411																
		OBS	0050	-0179	34491	2779			14411																
		OBS	0064	-0181	34496	2779			14412																
		STD	0075	-0178	3450	2779	0003111	0036	14416																
		OBS	0075	-0178	34501	2779			14416																
		STD	0100	-0148	3454	2781	0002917	0043	14434																
		OBS	0100	-0148	34536	2781			14434																
		STD	0125	-0100	3454	2780	0003075	0051	14461																
		OBS	0125	-0100	34536	2780			14461																
		STD	0150	-0049	3460	2782	0002836	0058	14490																
		OBS	0150	-0049	34595	2782			14490																
		STD	0200	0003	3464	2784	0002744	0072	14522																
		OBS	0200	0003	34641	2784			14522																
		STD	0250	0003	3464	2783	0002757	0086	14531																
		OBS	0250	0003	34639	2783			14531																
		STD	0300	0001	3465	2784	0002690	0100	14538																
		OBS	0300	0001	34646	2784			14538																
		OBS	0304	0014	34646	2783			14545																
		STD	0400	0024	3466	2784	0002713	0127	14566																
		OBS	0400	0024	34661	2784			14566																
		STD	0500	0036	3468	2785	0002681	0154	14588																
		OBS	0500	0036	34676	2785			14588																
		STD	0600	0031	3468	2785	0002659	0180	14602																
		OBS	0600	0031	34675	2785			14602																
		STD	0700	0027	3468	2785	0002633	0207	14617																
		OBS	0700	0027	34675	2785			14617																
		STD	0800	0022	3468	2785	0002599	0233	14632																
		OBS	0800	0022	34675	2785			14632																
		STD	0900	0017	3468	2786	0002562	0259	14646																
		OBS	0900	0017	34675	2786			14646																
		STD	1000	0013	3467	2786	0002538	0284	14661																
		OBS	1000	0013	34674	2786			14661																
		STD	1100	0009	3467	2786	0002527	0310	14676																
		OBS	1100	0009	34671	2786			14676																
		STD	1200	0006	3467	2786	0002500	0335	14692																
		OBS	1200	0006	34671	2786			14692																
		STD	1300	0003	3467	2786	0002450	0360	14707																
		OBS	1300	0003	34674	2786			14707																
		STD	1400	-0001	3467	2786	0002411	0384	14722																
		OBS	1400	-0001	34674	2786			14722																
		STD	1500	-0004	3467	2786	0002395	0408	14738																
		OBS	1500	-0004	34672	2786			14738																
		OBS	1600	-0006	34671	2786			14754																
		OBS	1700	-0008	34671	2787			14770																
		STD	1750	-0009	3467	2787	0002341	0467	14778																
		OBS	1800	-0010	34670	2787			14786																
		OBS	1900	-0013	34669	2787			14802																
		STD	2000	-0015	3467	2787	0002294	0525	14818																
		OBS	2000	-0015	34667	2787			14818																

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	MARS DEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318037	GL	68248S	043037W		520	83	03	07	150	1968		048		4133	10	32	0	2		X1	6	7	0063
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	ft/mbs	DRY BULB	WET BULB												
							32	S05	894		-027	7	15										

MESSENGER TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₂ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C C
		STD	0000	-0152	3399	2737	0007129	0000	14408	815							
142		OBS	0000	-0152	33992	2737			14408	815							825
		STD	0010	-0152	3399	2737	0007138	0007	14410	819							
142		OBS	0011	-0152	33989	2737			14410	820							825
		STD	0020	-0153	3400	2738	0007053	0014	14411	830							
142		OBS	0027	-0154	34048	2742			14413	837							825
		STD	0030	-0155	3412	2748	0006121	0021	14414	815							
		STD	0050	-0160	3446	2776	0003488	0030	14419	708							
142		OBS	0053	-0161	34488	2778			14420	698							822
		STD	0075	-0165	3449	2778	0003231	0039	14422	686							
142		OBS	0079	-0166	34491	2778			14422	678							821
		STD	0100	-0167	3451	2779	0003090	0047	14425	605							
142		OBS	0105	-0167	34509	2780			14426	590							818
		STD	0125	-0163	3451	2780	0003057	0054	14431	540							
		STD	0150	-0149	3453	2781	0002935	0062	14442	509							
142		OBS	T0158	-0143	34532	2781			14446	506							816
		STD	0200	-0089	3457	2782	0002836	0076	14479	566							
142		OBS	0208	-0080	34577	2782			14485	572							813
		STD	0250	-0045	3461	2783	0002722	0090	14508	541							
		STD	0300	-0014	3463	2784	0002727	0104	14531	515							
142		OBS	T0311	-0009	34639	2784			14535	511							811
		STD	0400	0014	3466	2784	0002696	0131	14561	499							
142		OBS	0414	0016	34658	2784			14564	498							811
		STD	0500	0021	3467	2785	0002628	0158	14581	491							
142		OBS	T0516	0022	34671	2785			14584	490							810
		STD	0600	0020	3467	2785	0002616	0184	14597	495							
142		OBS	0618	0020	34671	2785			14600	496							810
		STD	0700	0020	3467	2785	0002606	0210	14614	397							
142		OBS	T0723	0019	34672	2785			14617	394							810
		STD	0800	0016	3467	2785	0002593	0236	14629	484							
142		OBS	0819	0015	34670	2785			14632	500							808
		STD	0900	0013	3467	2785	0002569	0262	14644	502							
		STD	1000	0011	3467	2785	0002552	0287	14660	505							
142		OBS	T1020	0011	34667	2785			14663	505							808

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDICATOR	M/R SROEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			SAMPLING					TYPE	AMT		
																DIR	HGT	PER	SEA					
318037		GL	67594S	038001W		519	78	03	08	060	1968		049	4428	44	00	0	X		X1	6	17	0064	
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR	SPEED OR FORCE		DRY BULB	WET BULB												
										36	510	934		-008	7	30								
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S C							
		STD	0000	-0114	3381	2721	0008642	0000	14424	806														
073		OBS	0000	-0114	33809	2721			14424	806														
		STD	0010	-0116	3382	2722	0008585	0009	14424	818														
073		OBS	0010	-0116	33815	2722			14424	818														
		STD	0020	-0116	3381	2722	0008603	0017	14426	820														
073		OBS	0026	-0119	33810	2722			14426	821														
		STD	0030	-0127	3395	2733	0007506	0025	14424	794														
		STD	0050	-0153	3442	2772	0003815	0037	14422	695														
073		OBS	0052	-0154	34443	2774			14422	688														
		STD	0075	-0153	3446	2775	0003496	0046	14427	663														
073		OBS	0078	-0152	34466	2776			14428	659														
		STD	0100	-0141	3448	2777	0003368	0054	14437	629														
073		OBS	0103	-0139	34486	2777			14438	625														
		STD	0125	-0110	3451	2778	0003235	0063	14456	601														
		STD	0150	-0081	3454	2779	0003113	0070	14474	576														
073		OBS	T0155	-0076	34542	2779			14477	572														
		STD	0200	-0036	3459	2781	0002966	0086	14504	539														
073		OBS	0205	-0032	34590	2781			14507	536														
		STD	0250	0020	3461	2780	0003097	0101	14538	502														
		STD	0300	0053	3463	2780	0003157	0116	14562	479														
073		OBS	T0305	0055					478															
		STD	0400	0041	3467	2783	0002791	0146	14573	484														
073		OBS	0406	0040	34667	2784			14574	484														
		STD	0500	0045	3468	2784	0002722	0174	14592	473														
073		OBS	T0511	0046	34680	2784			14594	472														
		STD	0600	0047	3468	2784	0002710	0201	14610	471														
073		OBS	0606	0047	34683	2784			14611	471														
		STD	0700	0043	3468	2784	0002711	0228	14624	472														
073		OBS	T0711	0042	34680	2785			14626	472														
073		OBS	T0799	0038	34678	2785			14639	487														
		STD	0800	0038	3468	2785	0002695	0255	14639	487														
		STD	0900	0036	3468	2785	0002688	0282	14654	474														
		STD	1000	0033	3468	2785	0002681	0309	14670	461														
024		OBS	T1004	0033					460															
073		OBS	T1005	0033					478															
024		OBS	1064	0029	34675	2785			14679	480														
		STD	1100	0028	3468	2785	0002650	0336	14685	481														
		STD	1200	0025	3468	2785	0002627	0362	14700	485														
		STD	1300	0021	3468	2785	0002587	0388	14715	490														
024		OBS	1366	0018	34676	2786			14725	494														
		STD	1400	0016	3468	2786	0002551	0414	14730	498														
		STD	1500	0011	3467	2786	0002520	0439	14745	507														
024		OBS	T1669	0003	34669	2786			14770	518														
		STD	1750	-0000	3467	2786	0002455	0501	14782	519														
024		OBS	1969	-0008	34663	2786			14816	522														
		STD	2000	-0009	3466	2786	0002405	0562	14821	523														
024		OBS	2269	-0015	34659	2786			14864	532														
		STD	2500	-0020	3466	2786	0002279	0679	14902	543														
024		OBS	T2569	-0021	34655	2786			14913	546														
024		OBS	2869	-0024	34659	2786			14964	555														
		STD	3000	-0027	3466	2786	0002148	0790	14986	557														
024		OBS	3169	-0029	34652	2786			15014	559														
040		OBS	T3460	-0031	34653	2786			15065	564														
040		OBS	3774	-0032	34650	2786			15120	566														
		STD	4000	-0034	3465	2786	0001975	0996	15159	567														
040		OBS	4075	-0035	34652	2786			15172	568														
040		OBS	4326	-0037	34652	2786			15216	570														
040		OBS	T4380	-0038	34650	2786			15225	571														
040		OBS	T4401	-0041	34649	2786			15228	568														

REFERENCE		SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT METER	MARSSEN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE	
318037		GL	67594S	038001W	519	78	03	08	090	1968		049	4352	20	00	0	X		X1	03		0065
					WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB											
					DT	SD	26	505	938		-017	7	33									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°		Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH					
082		STD	0000	-0117	3379	2720	0008809		0000	14422												
		OBS	0000	-0117	33786	2720				14422												
		STD	0010	-0117	3379	2720	0008804		0009	14424												
		OBS	0010	-0117	33786	2720				14424												
		STD	0020	-0116	3379	2720	0008802		0018	14426												
		OBS	0020	-0116	33786	2720				14426												
		OBS	0025	-0150	34276	2760				14417												
		STD	0030	-0154	3440	2770	0004014		0024	14418												
		OBS	0030	-0154	34395	2770				14418												
		OBS	0033	-0157	34417	2772				14417												
		STD	0050	-0151	3445	2774	0003622		0032	14423												
		OBS	0050	-0151	34446	2774				14423												
		OBS	0070	-0139	34471	2776				14433												
		OBS	0073	-0149	34466	2776				14428												
		STD	0075	-0137	3446	2775	0003538		0041	14434												
		OBS	0075	-0137	34461	2775				14434												
		STD	0100	-0124	3449	2777	0003340		0049	14445												
		OBS	0100	-0124	34491	2777				14445												
		STD	0125	-0115	3450	2777	0003316		0058	14453												
		OBS	0125	-0115	34497	2777				14453												
		STD	0150	-0057	3457	2780	0003020		0065	14486												
		OBS	0150	-0057	34566	2780				14486												
		STD	0200	-0002	3462	2782	0002869		0080	14520												
		OBS	0200	-0002	34621	2782				14520												
		STD	0250	0054	3467	2783	0002819		0094	14554												
		OBS	0250	0054	34671	2783				14554												
		STD	0300	0054	3467	2783	0002801		0108	14563												
		OBS	0300	0054	34674	2783				14563												
		STD	0400	0040	3467	2784	0002778		0136	14573												
		OBS	0400	0040	34666	2784				14573												
		STD	0500	0044	3467	2784	0002750		0164	14591												
		OBS	0500	0044	34674	2784				14591												
	STD	0600	0047	3468	2784	0002726		0191	14610													
	OBS	0600	0047	34681	2784				14610													
	STD	0700	0043	3469	2785	0002674		0218	14624													
	OBS	0700	0043	34685	2785				14624													
	STD	0800	0037	3468	2785	0002650		0245	14638													
	OBS	0800	0037	34683	2785				14638													
	STD	0900	0033	3468	2785	0002639		0271	14653													
	OBS	0900	0033	34681	2785				14653													
	STD	1000	0032	3469	2786	0002597		0298	14670													
	OBS	1000	0032	34686	2786				14670													
	STD	1100	0029	3469	2786	0002576		0323	14685													
	OBS	1100	0029	34686	2786				14685													
	STD	1200	0023	3469	2786	0002529		0349	14699													
	OBS	1200	0023	34686	2786				14699													
	STD	1300	0017	3469	2786	0002479		0374	14714													
	OBS	1300	0017	34686	2786				14714													
	STD	1400	0014	3468	2786	0002489		0399	14729													
	OBS	1400	0014	34681	2786				14729													
	STD	1500	0009	3468	2786	0002458		0424	14744													
	OBS	1500	0009	34679	2786				14744													
	OBS	1600	0006	34678	2786				14759													
	OBS	1700	0002	34677	2787				14775													
	STD	1750	-0001	3468	2787	0002372		0484	14782													
	OBS	1800	-0003	34676	2787				14789													
	OBS	1900	-0006	34676	2787				14805													
	STD	2000	-0008	3468	2787	0002298		0542	14821													
	OBS	2000	-0008	34676	2787				14821													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE DD-MO-YY	WARDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IC NO.					10°	1°	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318037	GL		67392S	040018W	520	70	03	08	170	1968	050		4279	10	00	0	X		X1	5	7	00661
		WATER		WIND		BARO- METER		AIR TEMP. °C		VISC. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
		08	S11	920				-038		6	15											
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	Q_2 ml/l	PO_2-P $\mu g \cdot dl/l$	TOTAL-P $\mu g \cdot dl/l$	NO_2-N $\mu g \cdot dl/l$	NO_3-N $\mu g \cdot dl/l$	SiO_2-Si $\mu g \cdot dl/l$	pH	S C			
		STD	0000	-0142	3411	2747		0006228		0000	14415	795										
166		OBS	0000	-0142	34113	2747					14415	795										
		STD	0010	-0142	3411	2747		0006230		0006	14416	802										
166		OBS	0010	-0142	34112	2747					14416	802										
		STD	0020	-0144	3412	2747		0006196		0012	14417	808										
166		OBS	0025	-0146	34117	2747					14417	811										
		STD	0030	-0151	3420	2754		0005518		0018	14417	776										
		STD	0050	-0167	3449	2778		0003231		0027	14417	681										
166		OBS	0050	-0167	34491	2778					14417	681										
		STD	0075	-0172	3452	2781		0002982		0035	14419	667										
166		OBS	0075	-0172	3499P	2810P					667											
		STD	0100	-0168	3454	2782		0002826		0042	14425	642										
166		OBS	0100	-0168	3351P	2699P					642											
		STD	0125	-0117	3456	2782		0002827		0049	14453	596										
		STD	0150	-0069	3458	2782		0002645		0056	14480	554										
166		OBS	0150	-0069	34582	2782					14480	554										
		STD	0200	0019	3462	2781		0002993		0071	14529	484										
166		OBS	T0204	0023							480											
		STD	0250	0022	3464	2782		0002856		0085	14539	482										
166		OBS	T0299	0020	34663	2784					14547	483										
		STD	0300	0020	3466	2784		0002674		0099	14547	483										
		STD	0400	0040	3468	2785		0002679		0126	14573	471										
166		OBS	0401	0040	34679	2785					14573	471										
		STD	0500	0040	3469	2785		0002633		0153	14590	468										
166		OBS	T0503	0040	34686	2785					14590	468										
		STD	0600	0038	3469	2785		0002617		0179	14606	466										
166		OBS	0601	0038	34687	2785					14606	466										
		STD	0700	0039	3469	2785		0002637		0205	14623	468										
166		OBS	T0700	0039	34686	2785					14623	468										
		STD	0800	0033	3468	2785		0002643		0232	14637	467										
166		OBS	0802	0033	34679	2785					14637	467										
		STD	0900	0028	3468	2785		0002615		0258	14651	472										
		STD	1000	0025	3468	2785		0002594		0284	14667	482										
166		OBS	T1000	0025	34679	2785					14667	482										

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT PROCR	MARSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
318037	GL	67315S	044128W	520	74	03	09	030	1968		051		3713	10	00	0	X		X7	7	8		0067

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		04	S18	830		-023	6	15	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-307	$\Sigma \Delta D$ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - dl/l	TOTAL-P µg - dl/l	NO ₃ -N µg - dl/l	NO ₃ -N µg - dl/l	Si O ₄ -Si µg - dl/l	pH	S C
		STD	0000	-0181													
040		OBS	0000	-0181													
040		OBS	0009			33899				747							
		STD	0010	-0181		3390	2731	0007765		14395							
		STD	0020	-0182		3390	2731	0007735		14396							
040		OBS	0024	-0182		33903	2731			14397							
		STD	0030	-0173		3406	2743	0006535		14404							
040		OBS	0049	-0158		34389	2770			14419							
		STD	0050	-0159		3439	2770	0004028		14419							
040		OBS	0073	-0168		34471	2777			14420							
		STD	0075	-0168		3447	2777	0003361		14420							
040		OBS	0097	-0168		34483	2778			14424							
		STD	0100	-0167		3449	2778	0003242		14425							
		STD	0125	-0149		3451	2779	0003100		14438							
040		OBS	0145	-0126		34529	2780			14452							
		STD	0150	-0115		3454	2781	0002978		14458							
040		OBS	T0194	-0038		34608	2783			14502							
		STD	0200	-0033		3461	2783	0002791		14506							
		STD	0250	-0001		3464	2784	0002727		14529							
040		OBS	0292	0016		34660	2784			14544							
		STD	0300	0017		3466	2784	0002675		14545							
040		OBS	T0390	0022		34666	2785			14563							
		STD	0400	0023		3467	2785	0002639		14565							
040		OBS	T0492	0032		34675	2785			14585							
		STD	0500	0032		3468	2785	0002663		14586							
040		OBS	0588	0034		34680	2785			14602							
		STD	0600	0034		3468	2785	0002642		14604							
040		OBS	T0683	0032		34680	2785			14617							
		STD	0700	0031		3468	2785	0002624		14619							
040		OBS	T0796	0026		34676	2785			14633							
		STD	0800	0026		3468	2785	0002621		14633							
		STD	0900	0022		3467	2785	0002615		14648							
040		OBS	T0992	0019		34671	2785			14662							

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	INCH	MERIDIAN SQUARE		STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	M.O.	DAY HR 1/10		CRUISE NO.	STATION NUMBER		DIR	HGT	PER	SEA		TYPE	AMT		
318037	GL		673155	044128W	520	74	03	09	060	1968		051	3713	31	00	0	X		X7	0 3		0068
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH'S	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
						DT	SD	03	519	820			-024	2	41							
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D OTN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	COND.					
048		STD	0000	-0183	3390	2730	0007784	0000	14392													
		OBS	0000	-0183	33897	2730			14392													
		STD	0010	-0184	3390	2730	0007790	0008	14393													
		OBS	0010	-0184	33895	2730			14393													
		STD	0020	-0183	3392	2732	0007609	0015	14396													
		OBS	0020	-0183	33918	2732			14396													
		OBS	0025	-0158	34429	2773			14416													
		STD	0030	-0160	3443	2773	0003760	0021	14416													
		OBS	0030	-0160	34426	2773			14416													
		STD	0050	-0166	3446	2775	0003495	0028	14417													
		OBS	0050	-0166	34457	2775			14417													
		STD	0075	-0167	3448	2777	0003333	0037	14420													
		OBS	0075	-0167	34476	2777			14420													
		STD	0100	-0157	3450	2778	0003195	0045	14430													
		OBS	0100	-0157	34496	2778			14430													
		STD	0125	-0130	3455	2782	0002888	0053	14447													
		OBS	0125	-0130	34546	2782			14447													
		STD	0150	-0085	3461	2785	0002593	0060	14473													
		OBS	0150	-0085	34606	2785			14473													
		STD	0200	-0005	3465	2784	0002663	0073	14519													
		OBS	0200	-0005	34646	2784			14519													
		STD	0250	0013	3466	2784	0002693	0086	14536													
		OBS	0250	0013	34655	2784			14536													
		STD	0300	0023	3466	2784	0002736	0100	14548													
		OBS	0300	0023	34657	2784			14548													
		STD	0400	0026	3467	2784	0002681	0127	14567													
		OBS	0400	0026	34667	2784			14567													
		STD	0500	0034	3468	2785	0002668	0154	14587													
		OBS	0500	0034	34676	2785			14587													
		STD	0600	0034	3468	2785	0002672	0160	14604													
		OBS	0600	0034	34676	2785			14604													
		STD	0700	0031	3468	2785	0002647	0207	14619													
		OBS	0700	0031	34677	2785			14619													
		STD	0800	0027	3468	2785	0002621	0233	14634													
		OBS	0800	0027	34677	2785			14634													
		STD	0900	0024	3468	2785	0002600	0259	14649													
		OBS	0900	0024	34677	2785			14649													
		STD	1000	0020	3468	2786	0002573	0285	14664													
		OBS	1000	0020	34677	2786			14664													
		STD	1100	0016	3468	2786	0002546	0311	14679													
	OBS	1100	0016	34676	2786			14679														
	STD	1200	0013	3468	2786	0002520	0336	14695														
	OBS	1200	0013	34676	2786			14695														
	STD	1300	0008	3468	2786	0002477	0361	14709														
	OBS	1300	0008	34676	2786			14709														
	STD	1400	0005	3468	2786	0002448	0386	14725														
	OBS	1400	0005	34676	2786			14725														
	STD	1500	0001	3468	2786	0002409	0410	14740														
	OBS	1500	0001	34676	2786			14740														
	OBS	1600	-0003	34676	2787			14755														
	OBS	1700	-0006	34676	2787			14771														
	STD	1750	-0008	3468	2787	0002314	0469	14779														
	OBS	1800	-0009	34676	2787			14787														
	OBS	1900	-0012	34676	2787			14802														
	STD	2000	-0014	3468	2787	0002238	0526	14819														
	OBS	2000	-0014	34676	2787			14819														
	OBS	2100	-0016	34675	2787			14835														
	OBS	2200	-0018	34674	2787			14851														
	OBS	2300	-0021	34673	2787			14867														
	OBS	2400	-0022	34673	2787			14884														
	STD	2500	-0023	3467	2787	0002130	0635	14901														
	OBS	2500	-0023	34672	2787			14901														
	OBS	2600	-0024	34672	2787			14918														
	OBS	2700	-0025	34671	2787			14934														
	OBS	2800	-0027	34669	2787			14951														
	OBS	2900	-0028	34668	2787			14968														
	STD	3000	-0029	3467	2787	0002045	0739	14985														
	OBS	3000	-0029	34667	2787			14985														
	OBS	3100	-0029	34666	2787			15002														

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REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	NODC STATION NUMBER	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT	
318037	GL		67220S	047223W		520	77	03	10	060	1968		052		3768	10	00	0	X		X7	0 3		0070
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE			DRY BULB	WET BULB															
		DT	SD	00	500	794		-034		5	20													
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		Σ Δ D DYN. AL X 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SIO ₄ -Si μg - at/l	pH	S CC				
048		STD	0000	-0185	3403	2741		0006796		0000		14393												
		OBS	0000	-0185	34025	2741						14393												
		STD	0010	-0185	3403	2741		0006789		0007		14395												
		OBS	0010	-0185	34025	2741						14395												
		STD	0020	-0185	3403	2741		0006782		0014		14396												
		OBS	0020	-0185	34025	2741						14396												
		OBS	0025	-0183	34026	2741						14398												
		STD	0030	-0175	3408	2745		0006407		0020		14404												
		OBS	0030	-0175	34076	2745						14404												
		STD	0050	-0165	3447	2776		0003429		0030		14417												
		OBS	0050	-0165	34466	2776						14417												
		STD	0075	-0150	3450	2779		0003191		0038		14429												
		OBS	0075	-0150	34501	2779						14429												
		STD	0100	-0115	3454	2780		0003028		0046		14450												
		OBS	0100	-0115	34536	2780						14450												
		STD	0125	-0080	3457	2781		0002926		0053		14471												
		OBS	0125	-0080	34566	2781						14471												
		STD	0150	-0021	3463	2784		0002736		0061		14503												
		OBS	0150	-0021	34626	2784						14503												
		STD	0200	0016	3466	2784		0002710		0074		14529												
		OBS	0200	0016	34655	2784						14529												
		STD	0250	0019	3466	2784		0002720		0088		14538												
		OBS	0250	0019	34656	2784						14538												
		STD	0300	0025	3467	2784		0002688		0101		14549												
		OBS	0300	0025	34665	2784						14549												
		STD	0400	0030	3467	2785		0002676		0128		14568												
		OBS	0400	0030	34671	2785						14568												
		STD	0500	0034	3468	2785		0002638		0155		14587												
		OBS	0500	0034	34680	2785						14587												
		STD	0600	0034	3468	2785		0002634		0181		14604												
		OBS	0600	0034	34681	2785						14604												
		STD	0700	0031	3468	2785		0002617		0207		14619												
		OBS	0700	0031	34681	2785						14619												
		STD	0800	0028	3468	2785		0002598		0233		14634												
		OBS	0800	0028	34681	2785						14634												
		STD	0900	0024	3468	2786		0002577		0259		14649												
		OBS	0900	0024	34680	2786						14649												
		STD	1000	0020	3468	2786		0002548		0285		14664												
		OBS	1000	0020	34680	2786						14664												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SHIP INDIC	WARREN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	IO. NO.						10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT PER		SEA	TYPE		AMT
318037		GL	67190S	048598W		520	78	03	10	180	1968		053	3585	10	00	0	X		X1	7	7	0071
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB														
					00	500	789				-011	6					15						
MESSAGE TIME OF HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-10 ³		S Δ D OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - 01/1	TOTAL-P µg - 01/1	NO ₂ -N µg - 01/1	NO ₃ -N µg - 01/1	SiO ₄ -Si µg - 01/1	pH	S C					
		STD	0000	-0177	3405	2742	0006645		0000	14397	723												
189		OBS	0000	-0177	34047	2742				14397	723						812						
		STD	0010	-0182	3405	2743	0006627		0007	14397	731												
189		OBS	0010	-0182	34047	2743				14397	731						812						
		STD	0020	-0172	3428	2761	0004855		0012	14406	685												
189		OBS	0026	-0168	34380	2769				14411	665						808						
		STD	0030	-0167	3439	2770	0004016		0017	14412	661												
		STD	0050	-0164	3444	2774	0003630		0024	14417	642												
189		OBS	0052	-0164	34442	2774				14418	640						807						
		STD	0075	-0161	3447	2776	0003433		0033	14423	655												
189		OBS	0078	-0161	34468	2776				14424	657						806						
		STD	0100	-0164	3448	2777	0003298		0042	14426	643												
189		OBS	0104	-0164	34488	2778				14427	640						806						
		STD	0125	-0152	3450	2779	0003167		0050	14436	632												
		STD	0150	-0127	3453	2780	0003010		0058	14452	612												
189		OBS	0155	-0120	34534	2780				14457	607						805						
		STD	0200	-0031	3462	2784	0002725		0072	14507	531												
189		OBS	0207	-0021	34625	2783				14512	522						801						
		STD	0250	0002	3465	2784	0002668		0085	14530	499												
		STD	0300	0022	3467	2785	0002632		0099	14548	482												
189		OBS	T0311	0026	34672	2785				14552	480						798						
		STD	0400	0032	3467	2785	0002673		0125	14569	481												
189		OBS	0411		34673					481							798						
		STD	0500	0036	3468	2785	0002651		0152	14568	479												
189		OBS	T0516	0037	34682	2785				14591	478						800						
		STD	0600	0039	3469	2785	0002637		0178	14606	473												
189		OBS	0615	0039	34685	2785				14608	472						801						
		STD	0700	0036	3469	2785	0002623		0204	14621	477												
189		OBS	0716	0035	34685	2785				14624	478						799						
		STD	0800	0032	3469	2786	0002583		0230	14636	479												
189		OBS	T0818	0031	34687	2786				14639	480						799						
		STD	0900	0027	3469	2786	0002563		0256	14651	484												
		STD	1000	0023	3468	2786	0002549		0282	14666	491												
189		OBS	T1014	0022	34683	2786				14668	492						798						

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS. INDIC.	M/RSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
						10'	1'	M/O	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT				
						COLDER CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)													DRY BULB	WET BULB	VIS. CODE
318037	GL		67135S	049577W		520	79	03	11	000	1968		054		3664	37	00	0	X		X1	7	7		0072

REFERENCE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT ID	1/2 RS DEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
						10°	1°	M	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT		
318037	GL		67135S	049577W		520	79	03	11	060	1968		054		3603	20	00	0	X		X1	0 3		0073	
						WAT'R		WIND		BARD- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
						COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		WET BULB		DRY BULB									
						DT		SD		14		506		811		-032		6		31					
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. x 10 ³		SOUND VELOCITY		O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH					
067		STD	0000	-0182	3397	2736		0007233		0000		14394													
		OBS	0000	-0182	33969	2736						14394													
		OBS	0009	-0181	34058	2743						14397													
		STD	0010	-0179	3406	2743		0006549		0007		14398													
		OBS	0010	-0179	34058	2743						14398													
		STD	0020	-0170	3421	2756		0005374		0013		14406													
		OBS	0020	-0170	34213	2756						14406													
		OBS	0025	-0152	34407	2771						14418													
		STD	0030	-0147	3449	2777		0003321		0017		14423													
		OBS	0030	-0147	34488	2777						14423													
		STD	0050	-0125	3443	2772		0003802		0024		14435													
		OBS	0050	-0125	34433	2772						14435													
		STD	0075	-0108	3449	2776		0003438		0033		14448													
		OBS	0075	-0108	34487	2776						14448													
		STD	0100	-0067	3453	2778		0003240		0042		14472													
		OBS	0100	-0067	34533	2778						14472													
		STD	0125	-0033	3460	2782		0002893		0049		14493													
		OBS	0125	-0033	34598	2782						14493													
		STD	0150	-0005	3463	2783		0002803		0057		14510													
		OBS	0150	-0005	34628	2783						14510													
		STD	0200	0027	3465	2783		0002789		0070		14534													
		OBS	0200	0027	34653	2783						14534													
		STD	0250	0028	3466	2784		0002720		0084		14542													
		OBS	0250	0028	34663	2784						14542													
		STD	0300	0027	3466	2784		0002715		0098		14550													
		OBS	0300	0027	34663	2784						14550													
		STD	0400	0031	3467	2784		0002697		0125		14569													
		OBS	0400	0031	34669	2784						14569													
		STD	0500	0036	3467	2784		0002704		0152		14588													
		OBS	0500	0036	34673	2784						14588													
		STD	0600	0039	3468	2785		0002654		0179		14606													
		OBS	0600	0039	34683	2785						14606													
	STD	0700	0035	3468	2785		0002631		0205		14621														
	OBS	0700	0035	34683	2785						14621														
	STD	0800	0031	3468	2785		0002605		0231		14636														
	OBS	0800	0031	34683	2785						14636														
	STD	0900	0027	3468	2786		0002578		0257		14651														
	OBS	0900	0027	34683	2786						14651														
	STD	1000	0023	3468	2786		0002549		0283		14666														
	OBS	1000	0023	34683	2786						14666														
	STD	1100	0018	3468	2786		0002524		0308		14680														
	OBS	1100	0018	34681	2786						14680														
	STD	1200	0014	3468	2786		0002506		0333		14695														
	OBS	1200	0014	34679	2786						14695														
	STD	1300	0009	3468	2786		0002470		0358		14710														
	OBS	1300	0009	34678	2786						14710														
	STD	1400	0006	3468	2786		0002449		0383		14725														
	OBS	1400	0006	34677	2786						14725														
	STD	1500	0003	3467	2786		0002449		0407		14741														
	OBS	1500	0003	34673	2786						14741														
	OBS	1600	-0002	34673	2786						14756														
	OBS	1700	-0005	34673	2787						14771														
	STD	1750	-0006	3467	2787		0002355		0467		14779														
	OBS	1800	-0007	34672	2787						14787														
	OBS	1900	-0012	34671	2787						14802														
	STD	2000	-0014	3467	2787		0002275		0525		14819														
	OBS	2000	-0014	34671	2787						14819														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	M/PSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CITY CODE	IO, NO.					10"	1"	N	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318037	GL		66330S	050040W	521	60	03	11	180	1968		055		3338	10	00	0	X		X1	7	7	0074
		WATER		WIND		SARCO- METER		AIR TEMP. °C				VIS		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. MM	DIR.	SPEED OF FORCE	IMBS		DRY BULB		WET BULB													
					13	507		792		-033		6		15									

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. MIL	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			
			13	507	792	-033	6	15	

MESSAGING TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH M	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - 01/1	TOTAL-P μg - 01/1	NO ₂ -N μg - 01/1	NO ₃ -N μg - 01/1	SIO ₄ -Si μg - 01/1	pH	CTC
		STD	0000	-0180	3406	2744	0006523	0000	14396	695							
166		OBS	0000	-0180	34062	2744			14396	695							805
		STD	0010	-0184	3407	2744	0006461	0006	14396	704							
166		OBS	0010	-0184	34068	2744			14396	704							804
		STD	0020	-0181	3414	2750	0005908	0013	14400	701							
166		OBS	0026	-0178	34186	2754			14403	695							803
		STD	0030	-0173	3424	2758	0005153	0016	14407	683							
		STD	0050	-0153	3442	2772	0003815	0027	14422	636							
166		OBS	0052	-0152	34432	2773			14423	633							801
		STD	0075	-0148	3447	2776	0003434	0036	14429	616							
166		OBS	0078	-0146	34475	2776			14431	614							801
		STD	0100	-0124	3451	2778	0003195	0045	14445	606							
166		OBS	0104	-0119	34516	2779			14448	603							799
		STD	0125	-0073	3456	2781	0003002	0052	14474	565							
		STD	0150	-0030	3461	2783	0002813	0060	14499	529							
166		OBS	T0155	-0023	34613	2783			14503	523							797
		STD	0200	0017	3465	2784	0002754	0073	14529	489							
166		OBS	0206	0021	34659	2784			14532	486							795
		STD	0250	0028	3467	2785	0002667	0087	14543	481							
		STD	0300	0034	3467	2784	0002705	0100	14554	476							
166		OBS	T0307	0035	34675	2785			14555	475							796
		STD	0400	0038	3468	2785	0002665	0127	14572	473							
166		OBS	0410	0038	34679	2785			14574	473							792
		STD	0500	0042	3468	2785	0002688	0154	14590	469							
166		OBS	0512	0042	34685	2785			14593	468							790
		STD	0600	0043	3469	2785	0002643	0181	14608	468							
166		OBS	T0616	0043	34688	2785			14610	468							791
		STD	0700	0039	3469	2785	0002630	0207	14623	470							
166		OBS	0713	0038	34687	2785			14624	470							792
		STD	0800	0034	3469	2785	0002605	0233	14637	471							
166		OBS	T0814	0033	34686	2786			14639	471							790
		STD	0900	0029	3468	2786	0002586	0259	14652	476							
		STD	1000	0024	3468	2786	0002564	0285	14666	487							
166		OBS	T1014	0023	34682	2786			14668	489							790

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCHES	M/RSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF STAPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR, 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318037	GL	662015	050529W	521	60	03	12	000	1968		056		3169	10	00	0	X		X1	7	7		0075
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	(mb)		DRY BULB	WET BULB										
								10	515	852			-016	6	15								
MESSNGR TIME HR 1/10	CAPT NO.	CAPT TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ DYN. M. $\times 10^3$		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₂ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH				
		STD	0000	-0182	3404	2742		0006703		0000		14395	679										
007		OBS	0000	-0182	34038	2742						14395	679						807				
		STD	0010	-0184	3403	2741		0006730		0007		14395	691										
007		OBS	0010	-0184	34033	2741						14395	691						808				
		STD	0020	-0184	3403	2741		0006738		0013		14397	712										
007		OBS	0026	-0184	34030	2741						14398	714						805				
		STD	0030	-0182	3411	2748		0006130		0020		14401	697										
		STD	0050	-0169	3440	2771		0003924		0030		14414	638										
007		OBS	0052	-0167	34414	2772						14416	635						800				
		STD	0075	-0143	3447	2776		0003450		0039		14432	634										
007		OBS	0078	-0139	34479	2776						14434	631						799				
		STD	0100	-0095	3453	2779		0003149		0047		14459	582										
007		OBS	0104	-0087	34539	2779						14464	574						798				
		STD	0125	-0046	3458	2781		0002969		0055		14487	544										
		STD	0150	-0010	3462	2783		0002838		0062		14508	517										
007		OBS	0156	-0003	34630	2783						14512	512						794				
		STD	0200	0019	3465	2783		0002765		0076		14530	496										
007		OBS	T0208	0022	34653	2783						14533	494						793				
		STD	0250	0027	3466	2784		0002737		0090		14542	484										
		STD	0300	0032	3467	2784		0002708		0104		14553	476										
007		OBS	0311	0033	34670	2784						14555	475						787				
		STD	0400	0036	3467	2784		0002712		0131		14571	475										
015		OBS	0412	0036	34671	2784						14573	475						790				
		STD	0500	0039	3468	2785		0002669		0158		14589	464										
015		OBS	0515	0039	34681	2785						14592	463						790				
		STD	0600	0040	3468	2785		0002660		0184		14606	465										
015		OBS	0617	0040	34683	2785						14609	466						788				
		STD	0700	0036	3468	2785		0002638		0211		14621	475										
015		OBS	T0718	0035	34683	2785						14624	476						786				
		STD	0800	0029	3468	2785		0002605		0237		14635	478										
015		OBS	T0813	0028	34681	2785						14637	478						786				
		STD	0900	0023	3468	2786		0002570		0263		14649	482										
		STD	1000	0019	3468	2786		0002540		0288		14664	490										
015		OBS	T1014	0019	34675	2785						14666	491						789				

REF ID	IO. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	STATION	WATERS SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NODC STATION NUMBER		
						10'	1'	N/S	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
						WATER		WIND			AIR TEMP. °C				VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
COLOR CODE	TRANS. IN	DIR.	SPEED OF FORCE	BARO-METER (mbars)	DRY BULB	WET BULB																		
318037	GL	662015	050529W	521	60	03	12	060	1968	056	3109	30	00	0	X		X1	0	3		0076			
						DT	SD	14	510	898	-020	b	40											
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	CLC							
068		STD	0000	-0183	3397	2735		0007238	0000	14393														
		OBS	0000	-0183	33968	2736				14393														
		STD	0010	-0163	3420	2754		0005513	0006	14408														
		OBS	0010	-0163	34198	2754				14408														
		STD	0020	-0163	3441	2771		0003895	0011	14412														
		OBS	0020	-0163	34408	2771				14412														
		OBS	0025	-0161	34428	2773				14414														
		STD	0030	-0159	3445	2774		0003602	0015	14416														
		OBS	0030	-0159	34447	2774				14416														
		STD	0050	-0120	3452	2779		0003168	0022	14439														
		OBS	0050	-0120	34518	2779				14439														
		STD	0075	-0064	3458	2782		0002877	0029	14470														
		OBS	0075	-0064	34583	2782				14470														
		STD	0100	-0020	3462	2783		0002807	0036	14495														
		OBS	0100	-0020	34618	2783				14495														
		STD	0125	0003	3463	2783		0002808	0043	14510														
		OBS	0125	0003	34633	2783				14510														
		STD	0150	0017	3464	2783		0002808	0050	14521														
		OBS	0150	0017	34643	2783				14521														
		STD	0200	0025	3465	2783		0002777	0064	14533														
		OBS	0200	0025	34653	2783				14533														
		STD	0250	0032	3466	2784		0002744	0078	14544														
		OBS	0250	0032	34663	2784				14544														
		STD	0300	0033	3467	2784		0002721	0092	14553														
		OBS	0300	0033	34667	2784				14553														
		STD	0400	0038	3468	2784		0002697	0119	14572														
		OBS	0400	0038	34675	2784				14572														
		STD	0500	0041	3467	2784		0002738	0146	14590														
		OBS	0500	0041	34673	2784				14590														
		STD	0600	0036	3468	2785		0002633	0173	14605														
		OBS	0600	0036	34683	2785				14605														
		STD	0700	0033	3468	2785		0002616	0199	14620														
		OBS	0700	0033	34683	2785				14620														
		STD	0800	0028	3468	2786		0002583	0225	14634														
		OBS	0800	0028	34683	2786				14634														
		STD	0900	0024	3468	2785		0002585	0251	14649														
	OBS	0900	0024	34679	2785				14649															
	STD	1000	0017	3468	2786		0002532	0277	14663															
	OBS	1000	0017	34679	2786				14663															
	STD	1100	0013	3468	2786		0002507	0302	14678															
	OBS	1100	0013	34678	2786				14678															
	STD	1200	0008	3468	2786		0002472	0327	14692															
	OBS	1200	0008	34677	2786				14692															
	STD	1300	0004	3468	2786		0002436	0351	14708															
	OBS	1300	0004	34677	2786				14708															
	STD	1400	0000	3468	2786		0002412	0375	14723															
	OBS	1400	0000	34675	2786				14723															
	STD	1500	-0004	3467	2786		0002387	0399	14738															
	OBS	1500	-0004	34673	2786				14738															
	OBS	1600	-0008	34671	2787				14753															
	OBS	1700	-0012	34670	2787				14768															
	STD	1750	-0013	3467	2787		0002312	0458	14776															
	OBS	1800	-0014	34669	2787				14784															
	OBS	1900	-0017	34669	2787				14800															
	STD	2000	-0021	3467	2787		0002221	0515	14815															
	OBS	2000	-0021	34669	2787				14815															
	OBS	2100	-0023	34668	2787				14832															
	OBS	2200	-0025	34668	2787				14848															
	OBS	2300	-0027	34668	2787				14864															
	OBS	2400	-0029	34668	2787				14881															
	STD	2500	-0031	3467	2787		0002071	0622	14897															
	OBS	2500	-0031	34668	2787				14897															
	OBS	2600	-0033	34668	2788				14913															
	OBS	2700	-0034	34667	2787				14930															
	OBS	2800	-0037	34663	2787				14946															
	OBS	2900	-0042	34658	2787				14961															
	STD	3000	-0051	3465	2787		0001884	0721	14975															
	OBS	3000	-0051	34653	2787				14975															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT INCH	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE NO.	ID. NO.					10"	1"	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318037	GL	65481S	050505W	521	50	03	12	180	1968		057	3210	09	00	0	X		X1	7	7		0077

318037	GL	654815	050505W	521	50	03	12	180	1968		057		3210	09	00	0	X		X1	7	7	0077
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WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	WET BULB			

		14	509	930		-034	6	15
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MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \text{ol/l}$	TOTAL-P $\mu g - \text{ol/l}$	NO ₃ -N $\mu g - \text{ol/l}$	NO ₂ -N $\mu g - \text{ol/l}$	SiO ₄ -Si $\mu g - \text{ol/l}$	pH	LOG
		STD	0000	-0179	3398	2737	0007186	0000	14395	699							
179		OBS	0000	-0179	33976	2737			14395	699						810	
179		OBS	0008	-0184	33975	2737			14394	699						810	
		STD	0010	-0184	3397	2737	0007184	0007	14395	699							
		STD	0020	-0182	3397	2736	0007211	0014	14397	697							
179		OBS	0021	-0182	33970	2736			14397	697						810	
		STD	0030	-0176	3397	2737	0007188	0022	14402	697							
179		OBS	0044	-0168	33981	2737			14408	696						809	
		STD	0050	-0166	3412	2748	0006080	0035	14412	674							
179		OBS	0065	-0161	34357	2767			14420	634						805	
		STD	0075	-0157	3439	2770	0004020	0047	14424	627							
179		OBS	0087	-0149	34430	2773			14430	619						803	
		STD	0100	-0130	3445	2774	0003633	0057	14442	616							
		STD	0125	-0094	3449	2776	0003450	0066	14463	600							
179		OBS	0131	-0085	34503	2776			14469	594						802	
		STD	0150	-0056	3455	2779	0003147	0074	14486	563							
179		OBS	0175	-0024	34602	2782			14505	530						798	
		STD	0200	-0006	3463	2783	0002779	0089	14518	512							
		STD	0250	0020	3466	2784	0002695	0103	14539	488							
179		OBS	0263	0025	34665	2784			14543	484						798	
		STD	0300	0029	3467	2784	0002674	0116	14551	485							
179		OBS	0350	0034	34675	2785			14562	487						797	
		STD	0400	0037	3468	2785	0002653	0143	14572	478							
179		OBS	T0435	0038	34684	2785			14578	473						797	
		STD	0500	0039	3469	2785	0002632	0169	14589	469							
179		OBS	T0523	0039	34686	2785			14593	468						797	
		STD	0600	0038	3469	2785	0002625	0195	14606	471							
179		OBS	T0631	0037	34686	2785			14610	473						796	
		STD	0700	0034	3469	2785	0002608	0222	14620	478							
179		OBS	T0730	0033	34685	2785			14625	480						796	
		STD	0800	0030	3468	2786	0002590	0248	14635	484							
		STD	0900	0026	3468	2786	0002570	0273	14650	488							
179		OBS	T0929	0025	34682	2786			14655	489						796	

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE MO DAY	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10'	1"		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
318037	GL	651425	050475W	521	50 03 13 000	1968		058	3219	13	00	0	X		X1	7	7	0078	
		WAVE		WIND		SARD- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
		CODE	TRANS.	DIR.	SPEED OR FORCE	DIR.	FORCE	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS								
				13	513		973		-016	7	18								
MESSAGE TIME 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND WALT-2107	Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	Si O ₄ -Si μg - ml/l	pH	S C		
		STD	0000	-0190	3334	2685	0012053	0000	14381	816									
		OBS	0000	-0190	33340	2685			14381	816							818		
		STD	0010	-0180	3333	2684	0012135	0012	14387	836									
		OBS	0010	-0180	33331	2684			14387	836							819		
		STD	0020	-0175	3371	2715	0009225	0023	14397	780									
		OBS	0026	-0172	33897	2730			14402	751							809		
		STD	0030	-0171	3401	2739	0006925	0031	14405	737									
		STD	0050	-0164	3441	2772	0003862	0042	14417	679									
		OBS	0052	-0163	34438	2774			14418	674							805		
		STD	0075	-0138	3449	2777	0003312	0051	14434	632									
		OBS	0077	-0135	34497	2778			14436	628							802		
		STD	0100	-0087	3455	2780	0003027	0059	14463	577									
		OBS	0103	-0081	34556	2781			14467	571							797		
		STD	0125	-0045	3459	2782	0002897	0066	14487	544									
		STD	0150	-0015	3462	2783	0002812	0073	14506	518									
		OBS	0155	-0010	34630	2783			14509	514							796		
		STD	0200	0014	3465	2784	0002737	0087	14528	486									
		OBS	T0206	0016	34657	2784			14530	484							794		
		STD	0250	0019	3466	2784	0002674	0100	14538	485									
		STD	0300	0023	3467	2785	0002661	0114	14549	487									
		OBS	0308	0024	34668	2785			14550	487							794		
		STD	0400	0036	3468	2785	0002646	0140	14571	472									
		OBS	0410	0037	34683	2785			14573	471							792		
		STD	0500	0039	3469	2785	0002617	0167	14589	467									
		OBS	T0509	0039	34687	2785			14591	466							791		
		STD	0600	0039	3469	2785	0002624	0193	14606	468									
		OBS	0611	0039	34687	2785			14608	468							792		
		STD	0700	0037	3469	2785	0002623	0219	14622	468									
		OBS	T0716	0036	34686	2785			14624	468							791		
		STD	0800	0032	3469	2786	0002590	0245	14636	472									
		OBS	0813	0031	34686	2786			14638	473							791		
		STD	0900	0023	3469	2786	0002532	0271	14649	486									
		OBS	0919	0022	34685	2786			14652	488							793		
		STD	1000	0019	3468	2786	0002552	0296	14664	491									
		OBS	T1014	0018	34677	2786			14666	491							792		
		OBS	T1018	0015	34678	2786			14665	500							792		
		STD	1100	0012	3468	2786	0002499	0321	14677	504									
		STD	1200	0008	3468	2786	0002475	0346	14693	508									
		STD	1300	0005	3468	2786	0002442	0371	14708	512									
		OBS	T1321	0004	34677	2786			14711	513							792		

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

318037	GL	64360S	050350W	521	40	03	13	180	1968			059		3146	10	00	0	X		X1	7	7	0079
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WATER		WIND		BARO- METER (mbal)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
		20	S14	077		-059	7	15	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t^{20}	$\Sigma \Delta \rho$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO ₂ -N $\mu g - \mu l/l$	NO ₃ -N $\mu g - \mu l/l$	SiO ₄ -Si $\mu g - \mu l/l$	pH	SC
		STD	0000	-0178	3369	2714	0009379	0000	14392	756							
179		OBS	0000	-0178	33691	2714			14392	756							815
		STD	0010	-0181	3368	2713	0009419	0009	14392	763							
179		OBS	0010	-0181	33684	2713			14392	763							816
		STD	0020	-0178	3373	2717	0009065	0019	14396	706							
179		OBS	0025	-0176	33788	2721			14398	684							815
		STD	0030	-0174	3396	2735	0007301	0027	14402	674							
		STD	0050	-0165	3442	2772	0003780	0038	14416	645							
179		OBS	0051	-0165	34434	2774			14417	644							809
		STD	0075	-0167	3447	2777	0003379	0047	14420	629							
179		OBS	0076	-0167	34476	2777			14421	628							808
		STD	0100	-0158	3450	2779	0003177	0055	14429	624							
179		OBS	0102	-0157	34500	2779			14430	623							807
		STD	0125	-0121	3453	2780	0003042	0063	14451	597							
		STD	0150	-0088	3456	2781	0002932	0070	14471	573							
179		OBS	0153	-0084	34568	2782			14474	571							805
		STD	0200	-0038	3461	2783	0002766	0085	14503	545							
179		OBS	T0206	-0033	34612	2783			14507	542							805
		STD	0250	-0016	3463	2783	0002744	0098	14522	528							
		STD	0300	-0001	3465	2784	0002686	0112	14537	515							
179		OBS	0306	0000	34647	2784			14539	514							804
		STD	0400	0015	3466	2784	0002665	0139	14561	501							
179		OBS	0407	0016	34662	2785			14563	500							802
		STD	0500	0022	3467	2785	0002666	0165	14581	492							
179		OBS	0508	0023	34666	2784			14583	491							802
		STD	0600	0027	3467	2785	0002667	0192	14600	490							
179		OBS	T0606	0027	34673	2785			14601	490							801
		STD	0700	0026	3467	2785	0002634	0218	14617	490							
179		OBS	0712	0026	34674	2785			14619	490							801
		STD	0800	0023	3467	2785	0002629	0245	14632	497							
179		OBS	T0814	0022	34672	2785			14634	498							800
		STD	0900	0018	3467	2785	0002607	0271	14646	502							
		STD	1000	0014	3467	2785	0002576	0297	14661	504							
179		OBS	T1013	0013	34670	2785			14663	504							799

REFERENCE CRUISE CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HAZARD INDICATOR	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER					
					STATION TIME (GMT)				CRUISE NO.	STATION NUMBER			DIR	HGT PER	SEA		TYPE	AMT						
					10"	1"	M/D																	
318037	GL	6349 S	05036 W		521	30	03	14	060	1968		060	2487	21	00	0	X		X7	6	8		0080	
					WAVE		WIND		BARO- METER (mba)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. IMT	DIR.	SPEED OR FORCE	QRY BULB	WET BULB																	
							19	515	105			-090	6	21										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ QTY. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	S CLO						
		STD	0000	-0182	3363	2709	0009839		0000	14389	754							808						
	051	OBS	0000	-0182	33630	2709				14389	754													
		STD	0010	-0182	3363	2708	0009870		0010	14391	768							806						
	051	OBS	0010	-0182	33625	2708				14391	768													
		STD	0020	-0182	3368	2713	0009440		0020	14393	757							807						
	051	OBS	0026	-0182	33751	2719				14395	745													
		STD	0030	-0180	3389	2730	0007824		0028	14399	723													
		STD	0050	-0169	3438	2769	0004079		0040	14414	648													
	051	OBS	0051	-0168	34393	2770				14415	646							806						
		STD	0075	-0167	3445	2775	0003532		0050	14420	639													
	051	OBS	0077	-0167	34455	2775				14421	638							803						
		STD	0100	-0161	3449	2778	0003260		0058	14428	621													
	051	OBS	T0102	-0160	34489	2778				14428	619							801						
		STD	0125	-0143	3451	2779	0003120		0066	14441	597													
		STD	0150	-0120	3453	2780	0003036		0074	14456	576													
	051	OBS	0153	-0117	34537	2780				14458	574							799						
		STD	0200	-0055	3459	2782	0002836		0088	14495	548													
	051	OBS	0204	-0051	34598	2783				14498	546							799						
		STD	0250	-0023	3462	2783	0002759		0102	14519	527													
		STD	0300	-0001	3464	2784	0002724		0116	14537	513													
	051	OBS	0305	0001	34646	2784				14539	512							797						
		STD	0400	0015	3466	2784	0002687		0143	14561	504													
	051	OBS	0406	0016	34658	2784				14563	503							794						
		STD	0500	0023	3467	2785	0002643		0170	14582	492													
	051	OBS	T0507	0024	34674	2785				14583	491							796						
		STD	0600	0027	3468	2785	0002592		0196	14600	487													
	051	OBS	T0607	0027	34680	2785				14602	487							797						
		STD	0700	0023	3468	2786	0002569		0222	14615	487													
	051	OBS	0708		34680					487								796						
		STD	0800	0019	3468	2786	0002542		0247	14630	495													
	051	OBS	T0808	0019	34675	2785				14632	496							796						
		STD	0900	0016	3468	2786	0002543		0273	14645	502													
	149	OBS	T0914	0015	34676	2786				14647	503							791						
		STD	1000	0015	3468	2786	0002546		0298	14662	504													
	051	OBS	T1008	0013	34675	2786				14662	504							795						
	149	OBS	1016	0011	34672	2786				14663	507							790						
		STD	1100	0007	3467	2786	0002519		0324	14675	510													
		STD	1200	0003	3467	2786	0002483		0349	14690	515													
	149	OBS	T1269	0000	34665	2786				14700	518							791						
		STD	1300	-0002	3467	2786	0002475		0373	14705	520													
		STD	1400	-0006	3466	2786	0002450		0398	14720	525													
		STD	1500	-0011	3466	2786	0002408		0422	14734	530													
	149	OBS	1527	-0012	34661	2786				14738	531							791						
		STD	1750	-0019	3466	2786	0002330		0481	14773	540													
	149	OBS	1838	-0023	34658	2786				14786	544							789						
		STD	2000	-0030	3466	2786	0002228		0538	14811	551													
	149	OBS	T2149	-0038	34654	2787				14833	558							792						

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
CRUISE NO.	ID. NO.					10"	1"		M	DAY			HR. 1/10	CRUISE NO.	STATION NUMBER	DIR.		HGT	PER	
318037	GL	6349 S	05036 W	521	30	03	14	090	1968	060	2487	25	00	0	X		X1	0 3	0081	
		WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS								
		COLOR CODE	TRANS. (m)	CIR.	SPEED OR FORCE			DRY BULB	WET BULB											
		DT	SD	20	S14	111			-101	6	35									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	SiO ₄ -Si μg - at/l	pH			
079		STD	0000	-0178																
		OBS	0000	-0178																
		STD	0010	-0183																
		OBS	0010	-0183																
		STD	0020	-0168																
		OBS	0020	-0168																
		OBS	0025	-0163																
		STD	0030	-0163	3360	2706	0010107			14402										
		OBS	0030	-0163	33598	2706				14402										
		STD	0050	-0166	3389	2729	0007860			14408										
		OBS	0050	-0166	33888	2729				14408										
		STD	0075	-0165	3417	2752	0005699			14417										
		OBS	0075	-0165	34168	2752				14417										
		STD	0100	-0148	3450	2779	0003169			14434										
		OBS	0100	-0148	34503	2779				14434										
		STD	0125	-0120	3454	2781	0002985			14452										
		OBS	0125	-0120	34538	2781				14452										
		STD	0150	-0094	3456	2781	0002930			14468										
		OBS	0150	-0094	34557	2781				14468										
		STD	0200	-0031	3462	2783	0002740			14507										
		OBS	0200	-0031	34618	2783				14507										
		STD	0250	-0007	3463	2783	0002747			14526										
		OBS	0250	-0007	34633	2783				14526										
		STD	0300	0004	3464	2783	0002760			14539										
		OBS	0300	0004	34639	2783				14539										
		STD	0400	0021	3466	2784	0002740			14564										
		OBS	0400	0021	34655	2784				14564										
		STD	0500	0024	3466	2784	0002692			14582										
		OBS	0500	0024	34664	2784				14582										
		STD	0600	0027	3467	2784	0002684			14600										
	OBS	0600	0027	34668	2784				14600											
	STD	0700	0023	3467	2785	0002657			14615											
	OBS	0700	0023	34668	2785				14615											
	STD	0800	0021	3467	2785	0002644			14631											
	OBS	0800	0021	34668	2785				14631											
	STD	0900	0016	3467	2785	0002607			14645											
	OBS	0900	0016	34668	2785				14645											
	STD	1000	0012	3467	2785	0002575			14660											
	OBS	1000	0012	34668	2785				14660											
	STD	1100	0007	3467	2786	0002534			14675											
	OBS	1100	0007	34668	2786				14675											
	STD	1200	0004	3467	2786	0002506			14690											
	OBS	1200	0004	34668	2786				14690											
	STD	1300	0001	3467	2786	0002477			14706											
	OBS	1300	0001	34668	2786				14706											
	STD	1400	-0002	3467	2786	0002447			14722											
	OBS	1400	-0002	34668	2786				14722											
	STD	1500	-0005	3467	2786	0002416			14737											
	OBS	1500	-0005	34668	2786				14737											
	OBS	1600	-0006	34668	2786				14754											
	OBS	1700	-0010	34668	2786				14769											
	STD	1750	-0012	3467	2786	0002336			14777											
	OBS	1800	-0015	34668	2787				14784											
	OBS	1900	-0023	34666	2787				14797											
	STD	2000	-0031	3467	2787	0002138			14811											
	OBS	2000	-0031	34667	2787				14811											
	OBS	2100	-0046	34665	2788				14821											
	OBS	2200	-0059	34663	2788				14832											
	OBS	2300	-0076	34663	2789				14842											
	OBS	2400	-0086	34665	2790				14854											
	STD	2500	-0102	3466	2790	0001399			14864											
	OBS	2500	-0102	34658	2790				14864											

Table II. Observed and interpolated oceanographic data from stations taken by USCGC GLACIER during the 1969 International Weddell Sea Oceanographic Expedition, 24 February to 20 March 1969, prepared from NODC listing No. 31-8085.

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC.	SOEN SQUARE		TATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NODC STATION NUMBER
CRUISE CODE	ID. NO.					10°	1°	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER		DIR	HGT PER			SEA	TYPE	AMT				
						WATER		WIND		BARO- METER (mb)												AIR TEMP. °C		
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
					22	503	928	-071		-073		7	11											
MESSENGER TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ σ DTN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	ST CODE						
		STD	0000	-0113	3398	2735			0007365	0000	14426	805												
130	OBS	0000	-0113	33976	2735						14426	805	124		012	222	057	783						
	STD	0010	-0114	3397	2734				0007403	0007	14428	808												
130	OBS	0010	-0114	33970	2734						14428	808	130		013	227	056	792						
	STD	0020	-0121	3398	2735				0007300	0015	14426	811												
130	OBS	0026	-0125	33986	2736						14425	812	123		014	230	055	792						
	STD	0030	-0128	3405	2741				0006736	0022	14425	810												
	STD	0050	-0147	3427	2760				0004982	0033	14423	799												
130	OBS	0052	-0149	34289	2761						14423	798	161		018	280	064	790						
	STD	0075	-0177	3436	2768				0004195	0045	14414	741												
130	OBS	0078	-0179	34361	2768						14414	735	180		026	283	068	788						
	STD	0100	-0185	3438	2770				0004006	0055	14415	731												
130	OBS	0104	-0186	34384	2770						14415	7410	191		012	294	070	784						
	STD	0125	-0185	3438	2770				0003967	0065	14419	727												
	STD	0150	-0184	3438	2770				0003963	0075	14424	724												
130	OBS	0156		34382							723	180		014	316	069	784							
	STD	0200	-0181	3438	2770				0003932	0095	14433	721												
130	OBS	0208	-0181	34383	2770						14435	720	181		007	304	070	788						
	STD	0250	-0180	3439	2770				0003867	0114	14442	714												
	STD	0300	-0179	3440	2771				0003787	0133	14451	706												
130	OBS	0311	-0179	34396	2771						14453	704	176		027	321	072	788						
	STD	0400	-0102	3446	2774				0003548	0170	14505	643												
130	OBS	T0415	-0088	34479	2775						14514	6110	219		044	311	085	781						
	STD	0500	0001	3460	2780				0003028	0203	14571	523												
130	OBS	T0512	0015	34626	2782						14580	505	000		016	346	101	780						

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INCH	W. POSN SQUARE		TATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR,1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318085	GL	75314S	030080W	555	50	02	25	056	1969		002		0421	04	00	0	X		X4	0	3		0002	
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB												
						DT	SD	00	S00	951	-078	-082	8	25										
MESSENGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE							
065	STD	0000	-0180	3418	2754	0005593	0000	14398																
	OBS	0000	-0180	34183	2754			14398																
	STD	0010	-0178	3419	2754	0005576	0006	14400																
000	OBS	0010	-0178	34185	2754			14400																
	STD	0020	-0177	3423	2757	0005242	0011	14403																
	OBS	0020	-0177	34228	2757			14403																
	OBS	0025	-0174	34258	2750			14406																
	STD	0030	-0175	3427	2760	0004941	0016	14406																
	OBS	0030	-0175	34267	2760			14406																
	STD	0050	-0175	3429	2762	0004768	0026	14410																
	OBS	0050	-0175	34288	2762			14410																
	STD	0075	-0176	3431	2764	0004604	0038	14414																
	OBS	0075	-0176	34307	2764			14414																
	STD	0100	-0175	3432	2764	0004500	0049	14419																
	OBS	0100	-0175	34319	2764			14419																
	STD	0125	-0177	3433	2765	0004418	0060	14422																
	OBS	0125	-0177	34327	2765			14422																
	OBS	0136	-0177	34330	2765			14424																
	STD	0150	-0175	3434	2766	0004332	0071	14427																
	OBS	0150	-0175	34337	2766			14427																
	STD	0200	-0174	3436	2767	0004160	0092	14436																
	OBS	0200	-0174	34356	2767			14436																
	OBS	0220	-0170	34362	2768			14442																
	STD	0250	-0169	3439	2770	0003880	0112	14447																
	OBS	0250	-0169	34391	2770			14447																
	OBS	0260	-0170	34396	2771			14449																
	STD	0300	-0128	3445	2774	0003537	0131	14476																
	OBS	0300	-0128	34452	2774			14476																
	OBS	0312	-0136	34440	2773			14474																
	OBS	0328	-0100	34462	2774			14494																
	OBS	0350	-0140	34520	2780			14479																
	OBS	0369	-0087	34519	2778			14507																
	OBS	0372	-0088	34560	2781			14508																
	OBS	0376	-0075	3448P	2774P																			
	OBS	0384	-0107	3460P	2785P																			
	OBS	0392	-0067	34553	2780																			
	STD	0400	-0098	3454	2780	0002967	0163	14508																
	OBS	0400	-0098	34539	2780			14508																

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	CHART INDEX	SDEN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318085	GL	753145	030080W	555	50	02	25	085	1969		002		0421	03	00	0	A		X4	0	3		0003
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB										
						DT	SD	00	500	951	-145	-147	1	20									
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	S Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE						
		STD	0000	-0196	3394	2734																	
	080	OBS	0000	-0196	33940	2734		0007426	0000														
		OBS	0008	-0179	34185	2754																	
		STD	0010	-0179	3425	2759	0005074	0006															
	000	OBS	0010	-0179	34250	2759																	
		STD	0020	-0180	3431	2764	0004605	0011															
		OBS	0020	-0180	34310	2764																	
		OBS	0025	-0180	34303	2763																	
		STD	0030	-0180	3430	2763	0004691	0016															
		OBS	0030	-0180	34298	2763																	
		STD	0050	-0175	3430	2763	0004676	0025															
		OBS	0050	-0175	34300	2763																	
		STD	0075	-0170	3431	2764	0004582	0037															
		OBS	0075	-0170	34312	2764																	
		STD	0100	-0170	3432	2765	0004491	0048															
		OBS	0100	-0170	34322	2765																	
		STD	0125	-0173	3433	2765	0004406	0059															
		OBS	0125	-0173	34330	2765																	
		STD	0150	-0169	3434	2766	0004334	0070															
		OBS	0150	-0169	34339	2766																	
		STD	0200	-0162	3436	2767	0004167	0091															
		OBS	0200	-0162	34360	2767																	
		STD	0250	-0155	3438	2769	0003995	0112															
		OBS	0250	-0155	34382	2769																	
		OBS	0264	-0148	34402	2770																	
		OBS	0277	-0102	34440	2772																	
		STD	0300	-0088	3445	2773	0003699	0131															
		OBS	0300	-0088	34453	2773																	
		OBS	0306	-0105	3439P	2768P																	
		OBS	0319	-0066P	34430	2770P																	
		OBS	0332	-0073	34460	2772							14507										
		OBS	0335	-0098	34450	2773							14496										

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	CHART INDEX	SDEN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER								
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT									
318085	GL	753175	030089W	555	50	02	25	115	1969	002	002	0421	04	00	0	X			X4	7	6	0004									
						WATER		WIND		BARO- METER (mbal)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																
						COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB																			
								00	S00	951	-117	-118	2	10																	
MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	Σ Δ D DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	S CODE														
		STD	0000	-0180	3423	2757	0005255	0000	14398	764																					
	109	OBS	0000	-0180	34227	2757			14398	764	196			016	273	065	752														
		STD	0010	-0180	3423	2758	0005210	0005	14400	769																					
	109	OBS	0010	-0180	34232	2758			14400	769	198			007	273	065	781														
		STD	0020	-0180	3424	2758	0005142	0010	14402	766																					
	109	OBS	0026	-0180	34251	2759			14403	764	195			008	280	066	789														
		STD	0030	-0180	3427	2761	0004905	0015	14404	761																					
		STD	0050	-0181	3432	2765	0004507	0025	14408	748																					
	109	OBS	0052	-0181	34322	2765			14408	747	204			008	288	067	785														
		STD	0075	-0179	3433	2765	0004419	0036	14413	764																					
	109	OBS	0079	-0179	34336	2766			14413	765	204			009	296	062	785														
		STD	0100	-0181	3434	2766	0004322	0047	14416	753																					
	109	OBS	0105	-0182	34342	2767			14416	751	212			003	292	069	788														
		STD	0125	-0181	3435	2767	0004230	0058	14420	748																					
		STD	0150	-0180	3435	2767	0004218	0068	14425	744																					
	109	OBS	0157	-0180	34353	2767			14426	742	199			050	310	069	788														
		STD	0200	-0179	3436	2768	0004115	0089	14434	728																					
	109	OBS	T0209	-0178	34365	2768			14436	725	180			005	293	070	789														
		STD	0250	-0164	3438	2769	0003980	0109	14450	710																					
		STD	0300	-0138	3442	2772	0003742	0129	14471	680																					
	109	OBS	T0307	-0134	34429	2772			14474	675	210			006	306	078	785														
	109	OBS	T0390	-0066	34530	2778			14521	592	206			008	321	089	783														

REFERENCE CTRY NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	SDN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO- METER (mbs)		DRY BULB	WET BULB			VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					

318085	GL	76281S	031484W	555	61	02	26	055	1969		003	0436	04	00	0	X		X2	7	8		0005
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mbs)	DRY BULB	WET BULB											
								00	500	928	-051	-056	8	12								

MESSAGE TIME HR 1/10	CA-T NO.	C-RO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SIO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	CTC
		STD	0000	-0172	3402	2740											
056		OBS	0000	-0172	34018	2740	0006879	0000	14399	794							
		STD	0010	-0173	3403	2741	0006786	0007	14401	794	179			017	268	062	750
056		OBS	0018	-0174	34038	2742			14402	794	176			009	263	063	781
		STD	0020	-0175	3407	2744	0006460	0013	14402	788							
		STD	0030	-0179	3420	2755	0005446	0019	14403	762							
056		OBS	0043	-0182	34306	2764			14406	739	205			005	289	065	781
		STD	0050	-0182	3431	2764	0004581	0029	14407	735							
056		OBS	0068	-0183	34316	2764			14409	732	201			010	269	066	782
		STD	0075	-0183	3432	2765	0004510	0041	14411	735							
056		OBS	0094	-0183	34318	2765			14414	743	204			001	291	066	782
		STD	0100	-0183	3432	2765	0004471	0052	14415	743							
		STD	0125	-0182	3432	2765	0004457	0063	14419	741							
056		OBS	0144	-0182	34329	2765			14423	742Q	202			000	295	068	782
		STD	0150	-0182	3433	2766	0004366	0074	14424	739							
056		OBS	0195	-0183	34344	2767			14431	735	197			025	314	070	780
		STD	0200	-0183	3435	2767	0004180	0096	14432	735							
		STD	0250	-0181	3437	2769	0004001	0116	14441	732							
056		OBS	T0295	-0180	34384	2770			14450	726	201			008	280	071	780
		STD	0300	-0181	3439	2770	0003820	0136	14450	724							
056		OBS	0345	-0183	34406	2772			14457	716	208			000	300	071	782
056		OBS	0370	-0179	34424	2773			14463	719	207			002	300	072	781
056		OBS	T0395	-0187	34438	2774			14464	726	213			000	270	071	781
		STD	0400	-0188	3445	2775	0003279	0171	14464	725							
056		OBS	0429	-0191	34514	2781			14469	703	211			000	303	076	782

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	SDN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318085	GL	77054S	035026W		555	75	02	26	205	1969		004	0805	08	00	0	X		X7	5 7	0006
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mbs)	DRY BULB	WET BULB										
								00	500	915	-050	-054	8	13							

MESSAGE TIME HR 1/10	CAJ T NO.	C-RO TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₂ -N $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	SiO ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	CTC
		STD	0000	-0183	3426	2760	0004964	0000	14397	763							
195		OBS	0000	-0183	34264	2760			14397	763	180			009	280	067	731
		STD	0010	-0183	3427	2760	0004935	0005	14399	765							
		STD	0020	-0182	3427	2761	0004914	0010	14401	768							
		STD	0030	-0182	3427	2761	0004886	0015	14403	770							
195		OBS	0031	-0182	34272	2761			14403	770	185			006	282	067	769
		STD	0050	-0183	3430	2763	0004656	0024	14406	743							
195		OBS	0056	-0183	34309	2764			14407	740	193			002	294	068	779
		STD	0075	-0182	3433	2766	0004412	0036	14411	754							
195		OBS	T0082	-0182	34331	2766			14412	757	206			004	292	069	782
		STD	0100	-0182	3435	2767	0004244	0046	14416	745							
		STD	0125	-0182	3436	2768	0004152	0057	14420	733							
195		OBS	0133	-0182	34369	2769			14421	730	201			002	296	070	783
		STD	0150	-0182	3438	2770	0003983	0067	14424	729							
195		OBS	0183	-0183	34392	2771			14430	728	208			299	070	781	
		STD	0200	-0183	3440	2771	0003797	0087	14433	728							
		STD	0250	-0185	3444	2775	0003455	0105	14441	726							
195		OBS	0284	-0186	34466	2777			14446	724	208			000	299	071	781
		STD	0300	-0187	3449	2779	0003037	0121	14449	722							
195		OBS	T0384	-0191	34580	2786			14462	717	192			000	295	069	782
		STD	0400	-0191	3459	2787	0002201	0147	14465	718							
195		OBS	T0484	-0192	34610	2789			14479	721	197			000	297	068	784
		STD	0500	-0193	3461	2789	0001960	0168	14481	721							
195		OBS	T0587	-0197	34629	2790			14494	719	200			000	295	069	782
		STD	0600	-0197	3463	2790	0001756	0187	14496	718							
195		OBS	0687		34660				712	212				001	302	071	782
		STD	0700	-0198	3467	2794	0001391	0202	14513	711							
195		OBS	0765	-0198	34713	2797			14524	707	212			000	297	073	782
		STD	0800	-0195	3472	2798	0000959	0214	14532	707							
195		OBS	T0800	-0195	34721	2798			14532	707	209			002	296	071	788

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
CTRY CODE	ID. NO.					CRUISE NO.	STATION NUMBER		DIR.	HGT PER			SEA					
318085	GL		77197S	036413W	555	76	02 27	115	1969	005	1085	11	00	0	X	X7	518	0007
		WATER		WIND		SARD- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB									
				06	505	926	-059	-061	5	16								
MESSAGE TIME HR 1/10	CA- T NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SiO ₄ -Si $\mu g - dl/l$	pH	S C	
		STD	0000	-0181	3428	2761	0004853	0000	14399	839								
138		OBS	0000	-0181	34279	2761			14399	839	169		021	262	070	764		
		STD	0010	-0182	3428	2761	0004838	0005	14400	845								
138		OBS	0019	-0182	34282	2762			14401	8360	170		007	252	068	792		
		STD	0020	-0182	3428	2762	0004815	0010	14402	852								
138		OBS	0024	-0182	34280	2761			14402	854	163		006	248	064	795		
		STD	0030	-0182	3430	2763	0004670	0014	14403	814								
		STD	0050	-0183	3436	2768	0004195	0023	14407	727								
138		OBS	0051	-0183	34365	2768			14407	725	210		007	287	069	788		
		STD	0075	-0184	3440	2771	0003869	0033	14411	725								
138		OBS	0076		34403				725	202			006	297	068	787		
		STD	0100	-0186	3442	2773	0003697	0043	14415	733								
138		OBS	0103	-0186	34424	2773			14415	734	209		005	293	069	784		
		STD	0125	-0187	3444	2775	0003524	0052	14419	727								
		STD	0150	-0189	3446	2776	0003352	0060	14422	723								
138		OBS	0155	-0189	34464	2777			14423	722	219		002	300	069	785		
		STD	0200	-0195	3450	2780	0002998	0076	14428	723								
138		OBS	T0208	-0196	34502	2780			14429	723	204		001	298	068	788		
		STD	0250	-0195	3453	2782	0002738	0091	14437	720								
		STD	0300	-0193	3456	2784	0002482	0104	14447	716								
138		OBS	0311	-0193	34561	2785			14449	715	192		000	293	068	788		
		STD	0400	-0190	3459	2787	0002203	0127	14465	721								
138		OBS	T0412	-0190	34591	2787			14467	722	198		000	295	068	788		
		STD	0500	-0191	3461	2788	0001991	0148	14482	719								
138		OBS	T0511	-0191	34616	2789			14484	719	205		000	295	067	788		
138		OBS	0583	-0194	34620	2789			14494	725	204		001	293	067	788		
		STD	0600	-0196	3462	2790	0001821	0167	14496	725								
		STD	0700	-0206	3464	2791	0001614	0184	14509	724								
138		OBS	T0758	-0208	34644	2792			14517	720	207		003	299	069	784		
		STD	0800	-0207	3465	2792	0001444	0200	14525	714								
138		OBS	T0883	-0204	34670	2794			14541	706	199		000	294	071	786		
		STD	0900	-0202	3468	2794	0001216	0213	14545	706								
138		OBS	T0989	-0194	34702	2796			14564	706	202		001	298	070	788		
		STD	1000	-0193	3471	2797	0000940	0224	14566	705								
138		OBS	T1083	-0191	34743	2799			14582	697	198		002	299	072	789		

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SDEN SQUARE	TATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10°	1°	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318085	GL	77197S	036413W	555	76	02	27	115	1969		005	1085	11	00	0	X		X7	0	3		0008

WATER				WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB						
DT	SD	06	505	926	059	061	6	23			

				DT	SD	06	S05	926	-059	-061	6	23									
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MESSAGE TIME HR 1/10	CA, T NO.	STBD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
115		STD	0000	-0173	3423	2757	0005248	0000	14402								
		OBS	0000	-0173	34230	2757			14402								
		STD	0010	-0174	3424	2758	0005163	0005	14403								
		OBS	0010	-0174	34240	2758			14403								
001		STD	0020	-0174	3425	2759	0005103	0010	14405								
		OBS	0020	-0174	34247	2759			14405								
		OBS	0025	-0175	34262	2760			14405								
		STD	0030	-0175	3429	2762	0004780	0015	14407								
		OBS	0030	-0175	34288	2762			14407								
		STD	0050	-0177	3437	2769	0004133	0024	14410								
		OBS	0050	-0177	34370	2769			14410								
		STD	0075	-0178	3440	2771	0003886	0034	14414								
		OBS	0075	-0178	34400	2771			14414								
		STD	0100	-0180	3442	2773	0003728	0044	14418								
		OBS	0100	-0180	34418	2773			14418								
		STD	0125	-0182	3444	2774	0003539	0053	14421								
		OBS	0125	-0182	34440	2774			14421								
		STD	0150	-0183	3446	2776	0003368	0061	14425								
		OBS	0150	-0183	34460	2776			14425								
		STD	0200	-0185	3450	2779	0003026	0077	14433								
		OBS	0200	-0185	34500	2779			14433								
		STD	0250	-0186	3453	2782	0002779	0092	14441								
		OBS	0250	-0186	34528	2782			14441								
		STD	0300	-0188	3456	2784	0002537	0105	14449								
		OBS	0300	-0188	34555	2784			14449								
		STD	0400	-0188	3458	2786	0002288	0129	14466								
		OBS	0400	-0188	34580	2786			14466								
		STD	0500	-0185	3460	2788	0002058	0151	14485								
		OBS	0500	-0185	34604	2788			14485								
		STD	0600	-0185	3462	2789	0001918	0171	14501								
		OBS	0600	-0185	34615	2789			14501								
		STD	0700	-0196	3463	2790	0001686	0189	14513								
		OBS	0700	-0196	34632	2790			14513								
		OBS	0744	-0201	34640	2791			14518								
		STD	0800	-0200	3465	2792	0001459	0205	14528								
		OBS	0800	-0200	34652	2792			14528								
		OBS	0888	-0193	34680	2794			14547								
		STD	0900	-0196	3468	2795	0001177	0218	14548								
		OBS	0900	-0196	34684	2795			14548								
		STD	1000	-0186	3472	2797	0000901	0228	14570								
		OBS	1000	-0186	34720	2797			14570								
		OBS	1080	-0180	34750	2800			14586								

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO/IN/HR	SDEN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		HDDC STATION NUMBER	
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318085		GL	76502S	040554W	556	60	03	01	025	1969		006		0515	05	00	0	X		X1	7	1		0009
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB												
								15	516	947	-149	-153	8	11										
MESSAGE TIME HR 1/10	CA-T NO.	CORD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY		O ₂ ml/l	PO ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₂ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH	S C				
		STD	0000	-0177	3439	2771		0003979		0000	14402		828											
031		OBS	0000	-0177	34394	2771					14402		828	185			011	255	060	770				
		STD	0010	-0180	3438	2769		0004089		0004	14402		814											
031		OBS	0013	-0181	34373	2769					14402		813	191			008	264	061	780				
		STD	0020	-0183	3439	2770		0003983		0008	14403		816											
031		OBS	0023	-0184	34392	2771					14403		817	189			007	264	061	783				
		STD	0030	-0183	3440	2771		0003931		0012	14404		817											
031		OBS	0048	-0181	34406	2772					14408		800	194			008	258	062	782				
		STD	0050	-0182	3441	2772		0003814		0020	14408		792											
031		OBS	0074		34469						729			221			005	268	064	778				
		STD	0075	-0187	3447	2777		0003326		0029	14411		729											
		STD	0100	-0190	3452	2781		0002942		0037	14414		731											
031		OBS	0100	-0190	34517	2781					14414		731	212			003	294	063	778				
		STD	0125	-0190	3454	2783		0002766		0044	14419		725											
		STD	0150	-0190	3456	2784		0002590		0050	14423		719											
031		OBS	T0151	-0190	34560	2784					14423		719	217			001	297	066	779				
		STD	0200	-0193	3459	2787		0002315		0063	14431		719											
031		OBS	T0204	-0193	34596	2787					14431		719	214			000	292	064	778				
		STD	0250	-0197							719													
		STD	0300	-0201							720													
031		OBS	0309	-0202							720			224			000	294	064	780				
		STD	0400	-0199							722													
031		OBS	T0412	-0198							722			230			000	296	064	779				
		STD	0500	-0194							715													
031		OBS	T0513	-0193							713			212			007	295	065	781				

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO/IN/HR	SDEN SQUARE		TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		HDDC STATION NUMBER		
						10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT	
318085		GL	77160S	042383W	556	72	03	01	145	1969		007		0510	05	00	0	X		X4	5	7		0010
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB												
								13	530	937	-165	-167	6	11										
MESSAGE TIME HR 1/10	CA-T NO.	CORD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107		Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C						
		STD	0000	-0188							751													
157		OBS	0000	-0188	34630	27900					751	209		010	287	065	761							
		STD	0010	-0188							751													
157		OBS	0015	-0188	34437	2774					14400	751	218	008	286	064	779							
		STD	0020	-0188	3444	2775	0003588				14401	750												
		STD	0030	-0187	3444	2775	0003553				14403	747												
157		OBS	0030	-0187	34444	2775					14403	747	201	008	297	065	782							
		STD	0050	-0189	3447	2777	0003337				14406	737												
157		OBS	0055	-0189	34473	2777					14407	735	223	007	291	065	780							
		STD	0075	-0188	3449	2779	0003169				14411	731												
157		OBS	0080	-0188	34494	2779					14412	730	222	006	297	065	780							
		STD	0100	-0191	3454	2783	0002763				14414	723												
157		OBS	T0105	-0192	34544	2783					14415	722	215	001	300	065	780							
		STD	0125	-0192	3455	2784	0002670				14418	724												
		STD	0150	-0191	3456	2784	0002580				14423	726												
157		OBS	0156	-0191	34562	2785					14424	727	224	000	298	066	781							
		STD	0200	-0190	3457	2785	0002476				14432	718												
157		OBS	0207	-0190	34578	2786					14433	717	208	000	300	067	783							
		STD	0250	-0193	3463	2790	0001977				14439	719												
		STD	0300	-0197	3467	2794	0001630				14446	721												
157		OBS	T0309	-0198	34681	2794					14448	721	208	000	298	065	781							
		STD	0400	-0198	3470	2796	0001362				14463	719												
157		OBS	T0412	-0198	34680	27940					719		213	000	298	067	783							
		STD	0500	-0190	3471	2797	0001203				14484	718												
157		OBS	T0504	-0189	34715	2797					14485	718	217	001	294	066	782							

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	QUALITY INDIC	MARDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDOC STATION NUMBER										
						10°	1'	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT									
318085		GL	77385S	042278W		556	72	03	02	085	1969		008		0585	06	00	0	X		X7	5 7		0011								
						WATER		WIND		BARD- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																
						COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	(mbs)	DRY BULB	WET BULB																				
																	15 <td>S19</td> <td>931</td> <td>-138</td> <td>-140</td> <td>5</td> <td>12</td> <th colspan="7"></th>	S19	931	-138	-140	5	12									
MESSAGE TIME HR 1/10	CAST NO.		CORD TYPE	DEPTH (m)		T °C		S ‰		SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta D$ DYN. M. $\times 10^3$		SOUND VELOCITY		O ₂ ml/l		PO ₄ -P $\mu\text{g} \cdot \text{at/l}$		TOTAL-P $\mu\text{g} \cdot \text{at/l}$		NO ₃ -N $\mu\text{g} \cdot \text{at/l}$		NO ₃ -N $\mu\text{g} \cdot \text{at/l}$		SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$		pH		
			STD	0000		-0189												815														
	076		OBS	0000		-0189		35620		28700								815		199				008		289		065		753		
			STD	0010		-0189												746														
	076		OBS	0010		-0189		3443Q		2774Q								746		169				010		288		064		779		
			STD	0020		-0188												746														
			STD	0030		-0187		3440		2772		0003860					14402	746														
	076		OBS	0030		-0187		34404		2772							14402	746		203				010		283		063		782		
			STD	0050		-0189		3441		2772		0003804					14405	746														
	076		OBS	0056		-0190		34410		2772							14405	746		208				009		286		065		785		
			STD	0075		-0188		3441		2772		0003768					14410	745														
	076		OBS	0081		-0187		34413		2772							14411	744		209				009		288		064		785		
			STD	0100		-0187		3446		2776		0003386					14415	733														
			STD	0125		-0188		3451		2780		0002986					14419	723														
	076		OBS	0132		-0188		34517		2781							14421	721		216				003		291		065		784		
			STD	0150		-0190		3454		2783		0002736					14423	719														
	076		OBS	0182		-0192		34566		2785							14428	717		207				000		294		065		788		
			STD	0200		-0192		3457		2785		0002470					14431	719														
			STD	0250		-0193		3459		2787		0002285					14439	723														
	076		OBS	0283		-0193		34598		2788							14444	724		205				000		293		064		789		
			STD	0300		-0197		3461		2789		0002089					14446	723														
	076		OBS	T0383		-0211		34635		2791							14453	721		212				000		295		066		789		
			STD	0400		-0211		3464		2791		0001754					14456	721														
	076		OBS	T0483		-0213		34649		2792							14469	722		213				000		299		068		784		
			STD	0500		-0214		3465		2792		0001605					14472	720														
	076		OBS	T0546		-0215		34659		2793							14479	719		219				001		297		068		782		
	076		OBS	T0574		-0203		34683		2795							14489	721		226				002		294		067		783		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR.1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
CTRY CODE	ID. NO.						CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT					
318085	GL	77542S	045133W	556	75	03	03	235	1969	009	0250	02	00	0	X		X7	5	8		0012
		WATER		WIND		BARD- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB												
				00	S00	973	-106	-111	5 <th>09<th colspan="8"></th></th>				09 <th colspan="8"></th>								
MESSAGE TIME HR 1/10	CAST NO.	CORD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	STATION NUMBER			
		STD	0000	-0188	3450	2779		0003154	0000	14398	730										
231		OBS	0000	-0188	34498	2779				14398	730	211		007	294	065	760				
		STD	0010	-0188	3449	2779		0003210	0003	14400	729										
231		OBS	0016	-0188	34487	2778				14401	729	221		007	295	065	780				
		STD	0020	-0188	3449	2778		0003226	0006	14401	732										
		STD	0030	-0189	3449	2778		0003218	0010	14403	737										
231		OBS	0031	-0189	34487	2778				14403	738	223		013	291	064	785				
		STD	0050	-0189	3448	2778		0003229	0016	14406	744										
231		OBS	0056	-0189	34483	2778				14407	746	222		007	292	067	782				
		STD	0075	-0191	3449	2779		0003162	0024	14409	734										
231		OBS	0081	-0192	34497	2779				14410	733	217		008	293	065	781				
		STD	0100	-0191	3450	2779		0003095	0032	14414	739										
231		OBS	0106	-0190	34497	2779				14415	740	213		008	295	065	784				
		STD	0125	-0190	3450	2780		0003057	0040	14418	739										
		STD	0150	-0190	3450	2780		0003042	0047	14422	738										
231		OBS	T0155	-0190	34501	2780				14423	737	222		007	294	064	788				
		STD	0200	-0193	3450	2780		0002974	0062	14430	729										
231		OBS	T0207	-0193	34505	2780				14430	728	207		005	292	063	789				
231		OBS	0247	-0195	34512	2781				14436	721	219		007	297	064	789				

REFERENCE CITY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WIND DIRECTION	STATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					SODEN		TATION TIME (GMT)				CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA	TYPE		AMT			
					10"	1"	MO	DAY	HR.1/10														
318085	GL	775005	042052W	556	72	03	04	145	1969		010		0680	07	00	0	X		X7	5	6		0013
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mbal)	DRY BULB	WET BULB												
								16	513	999	-169	-171	8	13									
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	COND.						
		STD	0000	-0188	3442	2773	0003784	0000	14397	756													
144		OBS	0000	-0188	34416	2773			14397	756	200		010	278	062	776							
		STD	0010	-0190	3440	2771	0003919	0004	14398	765													
144		OBS	0010	-0190	34397	2771			14398	765	191		008	278	062	789							
		STD	0020	-0189	3439	2771	0003969	0008	14400	761													
144		OBS	0026	-0188	34383	2770			14401	760	199		009	277	061	791							
		STD	0030	-0188	3438	2770	0004019	0012	14402	761													
		STD	0050	-0187	3438	2770	0004017	0020	14406	766													
144		OBS	0051	-0187	34382	2770			14406	766	201		008	277	061	791							
		STD	0075	-0189	3440	2771	0003858	0030	14409	753													
144		OBS	0076	-0189	34404	2772			14409	752	204		009	292	061	789							
		STD	0100	-0188	3444	2775	0003538	0039	14414	736													
144		OBS	0102	-0188	34442	2775			14415		210		007	295	062	789							
		STD	0125	-0189	3448	2778	0003413	0047	14418	724													
		STD	0150	-0190	3451	2780	0003004	0055	14422	716													
144		OBS	T0150	-0190	34505	2780			14422	716	206		002	298	064	789							
		STD	0200	-0191	3453	2782	0002779	0070	14431	714													
144		OBS	0205	-0191	34537	2783			14432	714	210		000	297	063	789							
		STD	0250	-0191	3456	2784	0002518	0083	14439	714													
		STD	0300	-0192	3458	2786	0002334	0095	14448	714													
144		OBS	T0308	-0192	34585	2786			14449	714	206		001	295	062	789							
		STD	0400	-0189	3462	2789	0001981	0117	14466	711													
144		OBS	0413	-0188	34625	2790			14469	711	210		000	284	064	789							
		STD	0500	-0225	3464	2791	0001666	0135	14466	711													
144		OBS	T0517	-0229	34639	2792			14467	711	212		002	283	067	774							
		STD	0600	-0226	3464	2791	0001588	0151	14482	711													
144		OBS	0620	-0225	34638	2791			14486	711	216		000	282	068	776							
144		OBS	T0671	-0227	34647	2792			14494	709	212		001	288	067	790							

REFERENCE CITY NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	WIND DIRECTION	STATION TIME (GMT)					YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
318085	GL	771025	038408W	555	78	03	05	205	1969		011		0845	08	00	0	X		X7	5	8		0014
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	METER (mbal)	DRY BULB	WET BULB												
								01	508	921	-118	-122					5	15					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	COND.						
		STD	0000	-0185	3431	2764	0004590	0000	14397	796													
199		OBS	0000	-0185	34312	2764			14397	796	175		007	249	059	793							
		STD	0010	-0186	3430	2763	0004704	0005	14398	793													
199		OBS	0010	-0186	34296	2763			14398	793	173		007	248	059	792							
		STD	0020	-0186	3431	2764	0004591	0009	14400	793													
199		OBS	0025	-0186	34314	2764			14401	792	181		006	236	061	775							
		STD	0030	-0186	3433	2765	0004470	0014	14402	790													
		STD	0050	-0184	3437	2769	0004139	0022	14407	781													
199		OBS	0051	-0184	34369	2769			14407	780	188		007	272	061	789							
		STD	0075	-0188	3438	2770	0004014	0033	14409	780													
199		OBS	0076	-0188	34380	2770			14409	779	193		007	278	062	790							
		STD	0100	-0189	3446	2776	0003390	0042	14414	738													
199		OBS	T0100	-0189	34459	2776			14414	738	203		011	293	064	786							
		STD	0125	-0189	3450	2780	0003060	0050	14419	726													
		STD	0150	-0189	3453	2782	0002815	0057	14423	717													
199		OBS	0153	-0189	34535	2782			14424	716	201		001	296	059	789							
		STD	0200	-0191	3454	2783	0002703	0071	14431	706													
199		OBS	T0204	-0191	34545	2783			14432	705	205		000	299	065	782							
		STD	0250	-0191	3456	2784	0002520	0084	14439	711													
		STD	0300	-0191	3458	2786	0002367	0096	14448	717													
199		OBS	0307	-0191	34578	2786			14449	718	199		000	294	065	787							
		STD	0400	-0190	3459	2787	0002204	0119	14465	718													
199		OBS	T0410	-0190	34593	2787			14467	718	196		000	292	064	786							
		STD	0500	-0191	3462	2789	0001915	0140	14482	721													
199		OBS	T0511	-0191	34621	2789			14484	721	205		000	292	065	789							
		STD	0600	-0199	3463	2790	0001748	0158	14495	718													
199		OBS	0614	-0200	34633	2791			14497	717	207		000	296	066	786							
		STD	0700	-0201	3466	2793	0001453	0174	14511	714													
199		OBS	T0714	-0201	34666	2793			14514	714	208		000	278	064	784							
		STD	0800	-0198	3468	2794	0001257	0188	14530	713													
199		OBS	0820	-0197	34689	2795			14534	713	204		000	302	067	784							
199		OBS	T0839	-0199	34696	2796			14536	709	205		000	294	068	789							

MESSNGR HR	TIME 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ O DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	SiO ₄ -Si $\mu\text{g} - \text{at/l}$	pH
194			STD	0000	-0187	3440	2771	0003902	0000	14398	780						
			OBS	0000	-0187	34401	2771			14398	780	184		007	267	063	779
			STD	0010	-0186	3434	2767	0004336	0004	14399	792						
194			OBS	0010	-0186	34344	2767			14399	792	183		006	266	063	789
			STD	0020	-0185	3434	2767	0004347	0008	14401	785						
194			OBS	0020	-0185	34342	2767			14401	785	186		007	268	063	790
			STD	0030	-0191	3434	2767	0004343	0013	14400	765						
194			OBS	0031	-0191	34338	2766			14400	764	191		007	269	063	790
			STD	0050	-0185	3434	2766	0004351	0022	14406	786						
194			OBS	T0056	-0184	34339	2766			14407	789	194		007	274	062	790
			STD	0075	-0190	3442	2773	0003702	0032	14409	755						
			STD	0100	-0195	3450	2780	0003060	0040	14412	727						
194			OBS	0110	-0196	34525	2782			14413	720	210		002	295	066	788
			STD	0125	-0196	3453	2782	0002812	0047	14416	724						
			STD	0150	-0196	3455	2784	0002643	0054	14420	729						
194			OBS	T0163	-0196	34553	2784			14422	731	202		001	293	066	771
			STD	0200	-0194	3457	2785	0002464	0067	14430	729						
			STD	0250	-0192	3458	2786	0002364	0079	14439	727						
194			OBS	0268	-0191	34586	2787			14443	726	209		001	293	066	785
			STD	0300	-0191	3459	2787	0002260	0091	14448	723						
194			OBS	T0374	-0192	34599	2788			14460	720	204		001	293	065	788
			STD	0400	-0195	3460	2788	0002111	0112	14463	724						
194			OBS	0478	-0199	34612	2789			14474	724	205		001	291	064	787
			STD	0500	-0196	3462	2789	0001934	0133	14479	723						
194			OBS	0582	-0191	34625	2790			14496	718	212		000	292	065	786
			STD	0600	-0194	3463	2790	0001768	0151	14497	718						
			STD	0700	-0205	3463	2790	0001664	0168	14509	716						
194			OBS	T0780	-0210	34644	2792			14520	714	215		001	295	068	786
			STD	0800	-0210	3465	2792	0001439	0184	14524	714						
			STD	0900	-0206	3468	2794	0001189	0197	14542	711						
194			OBS	T0996	-0206	34700	2796			14559	709	213		001	299	070	789
			STD	1000	-0206	3471	2797	0000874	0207	14560	710						
194			OBS	T1016	-0207	34760	2801			14563	716	209		000	301	072	790

MESSAGE TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t^0	$\Sigma \Delta \sigma$ DYN. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \sigma_t/l$	TOTAL-P $\mu g - \sigma_t/l$	NO ₃ -N $\mu g - \sigma_t/l$	NO ₃ -N $\mu g - \sigma_t/l$	SiO ₄ -Si $\mu g - \sigma_t/l$	pH	SIGMA-T
		STD	0000	-0187	3457	2785	0002588	0000	14400	738							
075	OBS	0000	-0187	34572	2785				14400	738	208		009	289	067	780	
075	OBS	0006	-0186	34420	2773				14399	736	205		006	288	066	791	
	STD	0010	-0185	3440	2771		0003908	0003	14400	745							
075	OBS	0014	-0184	34386	2770				14401	751	209		007	287	066	795	
	STD	0020	-0185	3438	2770		0004055	0007	14401	749							
	STD	0030	-0186	3437	2769		0004124	0011	14403	745							
075	OBS	0040	-0187	34365	2768				14404	742	211		007	283	067	751	
	STD	0050	-0187	3437	2769		0004140	0020	14406	737							
075	OBS	0066	-0186	34367	2769				14408	735	214		005	290	067	793	
	STD	0075	-0186	3437	2769		0004127	0030	14410	739							
075	OBS	0092	-0185	34365	2768				14413	744	214		007	290	067	753	
	STD	0100	-0185	3437	2768		0004121	0040	14415	742							
	STD	0125	-0184	3437	2768		0004107	0051	14419	738							
075	OBS	T0143	-0184	34365	2768				14422	736	214		006	291	067	792	
	STD	0150	-0184	3436	2768		0004100	0061	14423	736							
075	OBS	0194	-0184	34360	2768				14431	736	209		006	288	066	795	
	STD	0200	-0184	3436	2768		0004100	0081	14431	736							
	STD	0250	-0185	3436	2768		0004053	0102	14440	733							
	STD	0300	-0185	3436	2768		0004005	0122	14448	731							
075	OBS	T0300	-0185	34364	2768				14448	731	208		005	288	066	794	
075	OBS	T0322	-0183	34360	2768				14452	738	213		006	289	067	781	
075	OBS	T0343	-0184	34377	2769				14456	724	217		010	291	067	792	

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	P. IDEN SQUARE	TATION TIME IGMT				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER				
CRUISE CODE	ID. NO.					MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	FTFL		AMT						
																					10"		1"			
318085	GL	77220S	034292W	555	74	03	07	140	1969		014	0370	04	00	0	X		X7	718		0018					
						WATER		WIND		BARO- METER (mbal)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE			DRY BULB	WET BULB																	
						21	S04	754	-115	-116	7	10														
MESSAGE TIME HR 1/10	CAST NO.	FLD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ DYN. M. 10 ³	SOUND VELOCITY	σ _θ ml/l	PO ₂ =P µg - at/l	TOTAL=P µg - at/l	NO ₃ =N µg - at/l	NO ₃ =N µg - at/l	SiO ₂ =Si µg - at/l	pH	1 CO								
		STD	0000	-0183	3421	2756	0005363		0000	14397	772															
140		OBS	0000	-0183	34212	2756				14397	772	190			012	267	061	788								
		STD	0010	-0183	3421	2756	0005357		0005	14398	774															
140		OBS	0010	-0183	34212	2756				14398	774	189			011	270	062	791								
		STD	0020	-0185	3425	2759	0005055		0011	14400	759															
		STD	0030	-0186	3428	2762	0004814		0016	14401	749															
140		OBS	0036	-0187	34286	2762				14402	746	213			011	284	065	758								
		STD	0050	-0186	3428	2762	0004770		0025	14404	753															
140		OBS	0061	-0186	34283	2762				14406	754	206			011	284	067	789								
		STD	0075	-0186	3429	2762	0004709		0037	14409	744															
140		OBS	0087	-0186	34299	2763				14411	738	206			011	288	066	790								
		STD	0100	-0186	3430	2763	0004610		0049	14413	739															
		STD	0125	-0185	3431	2764	0004557		0060	14418	741															
140		OBS	T0136	-0185	34308	2764				14420	742	211			010	287	066	790								
		STD	0150	-0185	3431	2764	0004526		0071	14422	740															
140		OBS	T0191	-0186	34307	2764				14428	736	207			008	288	066	789								
		STD	0200	-0186	3431	2764	0004500		0094	14430	736															
		STD	0250	-0187	3431	2764	0004452		0116	14438	735															
140		OBS	0291	-0187	34310	2764				14445	732	209			009	291	066	790								
		STD	0300	-0185	3431	2764	0004387		0138	14447	731															
140		OBS	T0339	-0183	34332	2766				14455	725	207			012	296	067	790								
140		OBS	0366	-0187	34372	2769				14458	722	206			005	294	068	790								

REFERENCE	SHIP CODE	LATITUDE ° ' / 10	LONGITUDE ° ' / 10	DATE MO DAY	TIME HR 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
							CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT	
318085	GL	76529S	032497W	555	62	03	08	055	1969	015	0375	04	00	0	X	X7	X9	0019	
WATER				WIND				BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	22		518	733	-161	-162	4	05								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	STATION NUMBER
		STD	0000	-0177	3399	2738		0007113		0000	14396	806							
063		OBS	0000	-0177	33986	2738					14396	808	165			017	236	054	799
		STD	0010	-0176	3397	2737		0007201		0007	14398	811							
063		OBS	0010	-0176	33974	2737					14398	811	170			018	238	054	799
		STD	0020	-0175	3403	2741		0006766		0014	14401	806							
		STD	0030	-0175	3408	2745		0006378		0021	14404	801							
		STD	0050	-0173	3418	2753		0005601		0033	14409	791							
063		OBS	0051	-0173	34184	2753					14410	790	192			014	263	058	797
063		OBS	0346	-0186	34377	2769					14455	731	219			003	290	069	790
063		OBS	0372	-0184	34389	2770					14461	727	220			004	293	069	789

REFERENCE	SHIP CODE	LATITUDE ° ' / 10	LONGITUDE ° ' / 10	UNIT INCHES	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING			WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NODC STATION NUMBER
					10'	1"	MO DAY HR 1/10		CRUISE NO.	STATION NUMBER		DIR	HGT	PER	SEA	TYPE	AMT			
318085	GL	76529S	032497W		555	62	03 08 055	1969		015	0375	04	00	0	X		X7	0 3		0020
					WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB								
					DT	SD	22	518	733	-161	-162	4	15							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ ρ DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	STATION NUMBER		
050		STD	0000	-0178	3393	2733	0007542		0000	14395										
		OBS	0000	-0178	33930	2733				14395										
000		STD	0010	-0178	3393	2733	0007535		0008	14397										
		OBS	0010	-0178	33930	2733				14397										
		STD	0020	-0181	3400	2739	0006983		0015	14398										
		OBS	0020	-0181	34000	2739				14398										
		OBS	0025	-0180	34071	2744				14400										
		STD	0030	-0178	3410	2747	0006216		0021	14402										
		OBS	0030	-0176	34100	2747				14402										
		STD	0050	-0171	3422	2756	0005338		0033	14411										
		OBS	0050	-0171	34215	2756				14411										
		STD	0075	-0182	3427	2761	0004888		0046	14410										
		OBS	0075	-0182	34268	2761				14410										
		STD	0100	-0185	3428	2761	0004788		0058	14413										
		OBS	0100	-0165	34278	2761				14413										
		STD	0125	-0186	3429	2762	0004670		0070	14417										
	OBS	0125	-0186	34291	2762				14417											
	STD	0150	-0186	3430	2763	0004570		0081	14421											
	OBS	0150	-0186	34302	2763				14421											
	OBS	0176	-0183	34310	2764				14427											
	STD	0200	-0187	3432	2765	0004398		0104	14430											
	OBS	0200	-0187	34320	2765				14430											
	STD	0250	-0187	3433	2766	0004282		0125	14438											
	OBS	0250	-0187	34331	2766				14438											
	STD	0300	-0187	3434	2767	0004167		0146	14446											
	OBS	0300	-0187	34342	2767				14446											
	OBS	0352	-0187	34348	2767				14455											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INCHES	STATION SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE
318085	GL	74400S	031041W		555	41	03	09	056	1969		016	0534	05	00	0	X		X1	6	3	0021
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
									21	S11	886	-175	-181	8	12							
MESSAGE TIME HR. 1/10	CAST NO.	CORD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \text{at/l}$	TOTAL-P $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	SiO ₄ -Si $\mu g - \text{at/l}$	pH					
		STD	0000	-0170	3409	2746	0006339		0000	14401	795											
056		OBS	0000	-0170	34089	2746				14401	795	167		015	241	055	801					
		STD	0010	-0168	3408	2745	0006376		0006	14404	793											
056		OBS	0010	-0168	34084	2745				14404	793	173		014	243	054	798					
		STD	0020	-0168	3409	2745	0006361		0013	14405	794											
056		OBS	0025	-0181	34085					795	168			015	243	054	796					
		STD	0030	-0169	3412	2748	0006086		0019	14407	787											
		STD	0050	-0169	3422	2756	0005305		0030	14412	758											
056		OBS	0051	-0169	34223	2757				14412	757	193		012	285	060	792					
		STD	0075	-0175	3428	2761	0004798		0043	14414	743											
		STD	0100	-0182	3434	2767	0004299		0054	14416	728											
056		OBS	T0102	-0182	34348	2767				14416	727	206		008	293	065	790					
		STD	0125	-0182	3435	2767	0004230		0065	14420	734											
035		OBS	0146	-0181	34361	2768				14424	740	211		002		066	788					
		STD	0150	-0181	3436	2768	0004109		0075	14425	727											
056		OBS	0152	-0181	34366	2768				14425	722	200		000	296	067	786					
035		OBS	0194	-0178	34368	2769				14433	722	205		002	294	068	786					
		STD	0200	-0174	3437	2769	0004053		0096	14436	720											
		STD	0250	-0140	3438	2768	0004064		0116	14461	707											
035		OBS	0292		34405					695	203			000	295	076	786					
		STD	0300	-0108	3442	2771	0003863		0136	14485	683											
035		OBS	T0390	-0050	34540	2778				14528	573	220		001	308	089	780					
		STD	0400	-0019	3457	2779	0003143		0171	14545	540											
035		OBS	T0494	0014	34663	2785				14577	502	231		002	312	103	779					
		STD	0500	0000	3466	2785	0002568		0200	14571	516											
035		OBS	T0509	-0024	34645	2785				14562	542	229		002	309	099	780					

REFERENCE CTRY CODE	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPTH METER	STATION SQUARE			TATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
					0*	1*	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE		AMT			
318085	GL	74400S	031041W		555	41	03	09	030		1969		016	0534	05	00	0	X		X7	0	3	0022	
					WATER		WIND		AIR TEMP. °C															
					COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE	BARO- METER (mb)				DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					DT	SD	21	S11	871	-182	-183	16												
MESSAGE TIME HR. 1/10	CAST NO.	CORD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - \text{at/l}$	TOTAL-P $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	SiO ₄ -Si $\mu g - \text{at/l}$	pH					
		STD	0000	-0186	3402	2741		0006824		0000		14393												
030		OBS	0000	-0186	34021	2741						14393												
		OBS	0008	-0182	34062	2744						14396												
		STD	0010	-0184	3406	2744		0006492		0007		14396												
000		OBS	0010	-0184	34064	2744						14396												
		STD	0020	-0187	3421	2756		0005341		0013		14398												
		OBS	0020	-0187	34212	2756						14398												
		OBS	0025	-0186	34260	2760						14400												
		STD	0030	-0178	3428	2761		0004841		0018		14405												
		OBS	0030	-0178	34279	2761						14405												
		STD	0050	-0185	3432	2765		0004497		0027		14406												
		OBS	0050	-0185	34320	2765						14406												
		STD	0075	-0187	3434	2766		0004323		0038		14409												
		OBS	0075	-0187	34340	2766						14409												
		STD	0100	-0188	3435	2767		0004220		0049		14413												
		OBS	0100	-0188	34351	2767						14413												
		STD	0125	-0188	3436	2768		0004128		0059		14417												
		OBS	0125	-0188	34361	2768						14417												
		STD	0150	-0188	3437	2769		0004059		0069		14421												
		OBS	0150	-0188	34368	2769						14421												
		STD	0200	-0188	3438	2770		0003913		0089		14430												
		OBS	0200	-0188	34383	2770						14430												
		STD	0250	-0184	3440	2771		0003756		0108		14440												
		OBS	0250	-0184	34401	2771						14440												
		STD	0300	-0157	3446	2775		0003367		0126		14462												
		OBS	0300	-0157	34460	2775						14462												
		STD	0400	-0054	3461	2784		0002632		0156		14529												
		OBS	0400	-0054	34612	2784						14529												
		OBS	0488	-0013	34644	2785						14563												

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	TSDEN SQUARE		TATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10"	1"	MO	DAY	HR	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	

MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C
		STD	0000	-0167	3407	2744											
164		OBS	0000	-0167	34071	2744	0006484	0000	14402	796							
		STD	0010	-0170	3406	2743	0006547	0007	14402	796	218		001	291	065	802	
164		OBS	0010	-0170	34061	2743			14402	794							
		STD	0020	-0170	3407	2744	0006510	0013	14404	794	235		001	294	068	801	
164		OBS	T0027	-0170	34068	2744			14405	793							
		STD	0030	-0169	3410	2747	0006237	0019	14407	792	234		000	295	070	800	
		STD	0050	-0165	3427	2760	0004931	0031	14414	786							
164		OBS	T0052	-0165	34278	2761			14415	751							
		STD	0075	-0173	3432	2765	0004512	0042	14415	748	229		001	299	080	771	
		STD	0100	-0179	3436	2768	0004175	0053	14417	735							
164		OBS	0104	-0180	34363	2768			14417	725							
		STD	0125	-0181	3437	2769	0004077	0064	14418	724	261		003	316	110	792	
		STD	0150	-0183	3437	2769	0004058	0074	14421	722							
148		OBS	0171	-0184	34375	2769			14424	720							
		STD	0200	-0183	3438	2770	0003949	0094	14427	719	237		002	303	091	781	
164		OBS	T0210	-0183	34381	2770			14432	719							
		STD	0250	-0181	3438	2770	0003926	0113	14434	719	181		015	240	058	790	
148		OBS	0273	-0180	34378	2769			14442	718							
		STD	0300	-0178	3438	2770	0003905	0133	14446	717	186		014	240	057	788	
148		OBS	T0377	-0173	34401	2771			14451	714							
		STD	0400	-0164	3442	2772	0003593	0171	14467	705	182		014	242	057	788	
148		OBS	0476	-0105	34482	2776			14475	695							
		STD	0500	-0039	3450	2774	0003544	0206	14516	632	205		015	272	064	784	
148		OBS	T0574	0040	3467P	2784P			14551	546							
		STD	0600	0022	3454	2774	0003614	0242	480		218		014	286	068	780	
148		OBS	0616	0000	34542	2776			14596	528							
									14589	576	213		000	293	069	783	

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	TSDEN SQUARE		TATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						10"	1"	MO	DAY	HR	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C		
143		STD	0000	-0181	3405	2743	0006628	0000	14395										
		OBS	0000	-0181	34048	2743					14395								
		STD	0010	-0176	3405	2743				0006617	0007	14399							
001		OBS	0010	-0176	34050	2743			14399										
		STD	0020	-0173	3409	2746	0006311	0013	14403										
		OBS	0020	-0173	34090	2746			14403										
		OBS	0025	-0163	34150	2750			14409										
		STD	0030	-0163	3421	2755	0005402	0019	14411										
		OBS	0030	-0163	34211	2755			14411										
		STD	0050	-0182	3435	2767	0004305	0029	14407										
		OBS	0050	-0182	34346	2767			14407										
		STD	0075	-0186	3437	2769	0004111	0039	14410										
		OBS	0075	-0186	34368	2769			14410										
		STD	0100	-0187	3438	2769	0004024	0049	14414										
		OBS	0100	-0187	34377	2769			14414										
		STD	0125	-0188	3438	2770	0003990	0059	14417										
		OBS	0125	-0188	34379	2770			14417										
		STD	0150	-0188	3438	2770	0003944	0069	14422										
	OBS	0150	-0188	34383	2770			14422											
	STD	0200	-0188	3439	2770	0003874	0089	14430											
	OBS	0200	-0188	34388	2770			14430											
	STD	0250	-0182	3439	2771	0003831	0108	14441											
	OBS	0250	-0182	34392	2771			14441											
	STD	0300	-0183	3440	2771	0003737	0127	14449											
	OBS	0300	-0183	34400	2771			14449											
	STD	0400	-0142	3448	2777	0003223	0162	14486											
	OBS	0400	-0142	34480	2777			14486											
	STD	0500	-0008	3463	2783	0002775	0192	14567											
	OBS	0500	-0008	34626	2783			14567											
	STD	0600	0037	3471	2787	0002460	0218	14605											
	OBS	0600	0037	34707	2787			14605											
	OBS	0610	0037	34706	2787			14607											

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REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	14/15 DEGREE SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER				
					10'	1"		MO	DAY			HR.1/10	CRUISE NO.	STATION NUMBER		DIR.	HGT		PER	SEA	TYPE	AMT
318085	GL	73494S	031409W	555	31	03	12	115	1969		020	2360	24	00	0	X		X1	8	2		0026
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	MB	DRY BULB	WET BULB												
						16		S05	903	-147	-150	8	25									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta D$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C					
		STD	0000	-0239	3405	2744	0006530	0000	14368	805												
117		OBS	0000	-0239	34047	2744			14368	805	160			014	234	053	792					
		STD	0010	-0170	3404	2742	0006678	0007	14402	809												
117		OBS	0010	-0170	34044	2742			14402	809	151			012	237	043	796					
		STD	0020	-0169	3405	2742	0006659	0013	14404	808												
117		OBS	0026	-0168	34047	2742			14406	808	156			012	236	052	798					
		STD	0030	-0171	3411	2747	0006156	0020	14406	792												
		STD	0050	-0181	3432	2765	0004507	0030	14408	737												
117		OBS	0052	-0182	34334	2766			14408	734	206			017	288	065	790					
		STD	0075	-0184	3434	2766	0004331	0041	14411	731												
117		OBS	0078	-0184	34342	2767			14411	730	202			003	292	066	789					
		STD	0100	-0183	3436	2768	0004194	0052	14415	732												
117		OBS	0104	-0183	34358	2768			14416	732	213			002	293	067	788					
		STD	0125	-0183	3436	2768	0004165	0062	14420	730												
		STD	0150	-0182	3436	2768	0004144	0073	14424	727												
117		OBS	0156	-0182	34359	2768			14425	726	199			000	301	067	789					
		STD	0200	-0182	3437	2769	0004029	0093	14433	720												
117		OBS	T0208	-0182	34373	2769			14434	719	205			000	295	068	789					
		STD	0250	-0180	3438	2769	0003959	0113	14442	718												
		STD	0300	-0178	3438	2770	0003905	0133	14451	717												
117		OBS	T0306	-0178	34380	2769			14452	717	208			000	294	068	789					
		STD	0400	-0145	3440	2770	0003819	0172	14484	673												
117		OBS	T0405	-0142	34407	2771			14486	670	210			000	293	073	788					
		STD	0500	-0051	3452	2776	0003325	0207	14546	579												
117		OBS	0510	-0043	34529	2777			14551	571	223			000	312	088	779					
		STD	0600	0009	3461	2781	0002999	0239	14591	520												
117		OBS	0610	0014	34616	2781			14595	515	224			000	315	097	780					
		STD	0700	0037	3465	2783	0002878	0268	14621	491												
		STD	0800	0054	3469	2785	0002712	0296	14646	464												
117		OBS	0810		34696				14658	461	222			000	321	106	779					
150		OBS	T0858	0059	34692	2785			14658	468	221			000	322	119	786					
		STD	0900	0059	3469	2785	0002751	0324	14665	468												
		STD	1000	0058	3470	2785	0002727	0351	14682	468												
117		OBS	T1006	0058	34697	2785			14683	468	216			000	325	115	779					
150		OBS	T1059	0052	34694	2785			14689	513	221			000	322	115	781					
		STD	1100	0048	3469	2785	0002682	0378	14694	505												
		STD	1200	0041	3469	2785	0002659	0405	14708	487												
117		OBS	T1256	0038	34687	2785			14716	476	217			000	322	118	780					
		STD	1300	0036	3469	2786	0002617	0431	14722	502												
150		OBS	1312	0036	34693	2786			14724	508	232			000	322	119	781					
		STD	1400	0029	3469	2786	0002562	0457	14736	513												
		STD	1500	0022	3469	2786	0002531	0482	14750	519												
150		OBS	1566	0018	34682	2786			14759	522	233			000	325	122	780					
		STD	1750	0012	3468	2786	0002474	0545	14788	529												
150		OBS	1872	0008	34676	2786			14807	533	233			000	322	122	780					
		STD	2000	0004	3468	2786	0002425	0606	14827	516												
150		OBS	T2068	0002	34675	2786			14838	515	222			000	322	122	782					
150		OBS	T2172	-0001	34674	2786			14854	524	227			000	322	120	782					
150		OBS	2281	-0004	34678	2787			14872	524	236			000	324	122	781					
150		OBS	T2332	-0008	34668	2786			14878	524	213			000	322	124	781					
150		OBS	T2358	-0010	34694	2788			14882	520	219			000	322	126	783					

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	TIME HR 1/10	PARSONS SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER		
CRUISE CODE	IO. NO.					10'	1"	MO	DAY		HR 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT PER		SEA	TYPE		AMT	
318085	GL	73290S	030241W	555	30	03	14	055	1969		022	3109	31	31	0	2		X2	7	8	0027		
					WATER		WIND		AIR TEMP. °C		BARO- METER		WET BULB		VIS. CODE		ND. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	NO. OBS. DEPTHS	DRY BULB	WET BULB	VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS							
								31	S10	893	-050	-058	8	24									

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANDALTY-110°	Σ Δ D OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	STATION NUMBER
		STD	0000	-0151	3405	2742	0006725	0000	14410	799							
056	085	0000	-0151	34045	2742				14410	799	137		013	219	052	797	
		STD	0010	-0150	3404	2741	0006783	0007	14412	804							
056	085	0010	-0150	34037	2741				14412	804	145		013	216	051	800	
		STD	0020	-0141	3405	2742	0006703	0013	14418	813							
056	085	0025	-0136	34057	2742				14421	815	147		013	218	052	801	
		STD	0030	-0128	3407	2743	0006583	0020	14426	815							
		STD	0050	-0112	3414	2748	0006066	0033	14437	805							
056	085	0050	-0112	34143	2748				14437	805	203		010	241	054	800	
		STD	0075	-0154	3428	2761	0004872	0046	14424	756							
		STD	0100	-0179	3436	2768	0004183	0058	14417	726							
056	085	0100	-0179	34359	2768				14417	726	199		025	294	067	790	
		STD	0125	-0179	3437	2769	0004083	0068	14422	724							
		STD	0150	-0180	3437	2769	0004058	0078	14425	722							
056	085	0150	-0180	34371	2769				14425	722	201		000	298	068	789	
		STD	0200	-0183	3438	2769	0003989	0098	14432	716							
056	085	T0203	-0183	34375	2769				14433	716	201		000	293	067	790	
		STD	0250	-0182	3438	2770	0003923	0118	14441	715							
		STD	0300	-0181	3439	2770	0003858	0138	14450	714							
056	085	0300	-0181	34385	2770				14450	714	204		000	300	068	789	
056	085	T0399	-0164	34403	2771				14475	686	201		000	298	070	789	
		STD	0400	-0163	3440	2771	0003719	0176	14475	685							
056	085	T0499	-0109	34470	2775				14518	622	207		000	304	078	788	
		STD	0500	-0108	3447	2775	0003400	0211	14519	621							
		STD	0600	-0017	3454	2777	0003329	0245	14579	545							
		STD	0700	0043	3462	2779	0003192	0277	14624	492							
056	085	T0797	0070	34687	2783				14653	463	204		000	307	104	782	
		STD	0800	0070	3469	2784	0002852	0308	14653	463							
		STD	0900	0063	3469	2784	0002809	0336	14667	458							
087	085	T0920	0062	34692	2784				14670	457	222		000	320	110	782	
		STD	1000	0060	3470	2785	0002750	0364	14683	461							
056	085	1000	0060	34696	2785				14683	461	230		000	319	111	780	
		STD	1100	0053	3469	2785	0002739	0391	14696	466							
087	085	T1111	0052	34690	2785				14698	466	221		000	321	116	781	
		STD	1200	0045	3469	2785	0002686	0418	14709	469							
056	085	T1250	0042	34690	2785				14717	470	230		000	321	117	781	
		STD	1300	0039	3469	2785	0002677	0445	14724	467							
087	085	1310	0038	34684	2785				14725	466	221		000	321	118	781	
		STD	1400	0033	3468	2785	0002639	0472	14738	473							
		STD	1500	0027	3468	2785	0002602	0498	14752	480							
087	085	1510	0026	34681	2786				14753	481	223		000	323	121	783	
		STD	1750	0025	3468	2786	0002599	0563	14794	496							
087	085	1811	0022	34678	2786				14803	499	224		000	320	122	786	
		STD	2000	0005	3467	2786	0002472	0626	14827	506							
087	085	T2013	0004	34669	2786				14829	507	227		000	321	123	782	
087	085	T2216	-0001	34663	2786				14862	519	226		000	321	120	783	
		STD	2500	-0008	3466	2786	0002353	0747	14907	527							
087	085	2524	-0009	34664	2786				14911	528	224		000	321	119	788	
087	085	2837	-00140	34661	27860				523	219			001	313	118	789	
		STD	3000	-0009	3466	2786	0002338	0864	14994	537							
087	085	T3056	-0017	34658	2786				15000	538	222		000	319	121	788	
087	085	T3093	-0023	34650	27860					538							

REFERENCE CITY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	M/R SOEN SQUARE 10" 1"	STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NOOC STATION NUMBER	
					MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT				PER
					SEA	TYPE		AMT										
318085	GL	72475S	030283W	555	20	03	15	025	1969	023	3658	35	00	0	X	X8	718	0028
				WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS				
COLOR CODE		TRANS. (m)		DIR.	SPEED OR FORCE	DRY BULB		WET BULB										
				05	S13	846		-036 -047		7	27							
MESSAGE TIME HR 1/10	CASST NO.	CYRO TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	SI O ₄ -Si $\mu g - dl/l$	pH	S C	
		STD	0000	-0161	3388	2729		0007966	0000	14402	829							
003	OBS	0000	-0161	33880	2729					14402	829	113			013	200	799	
003	OBS	0008	-0164	33879	2729					14402	828	121			013	196	802	
	STD	0010	-0160	3388	2728	0007962	0008			14405	828							
	STD	0020	-0142	3389	2729	0007927	0016			14415	825							
003	OBS	0021	-0140	33898	2729					14416	825	127			013	202	801	
	STD	0030	-0116	3399	2736	0007234	0023			14430	809							
003	OBS	0042	-0100	34102	2745					14441	788	167			013	247	799	
	STD	0050	-0120	3417	2751	0005833	0037			14434	773							
	STD	0075	-0166	3433	2765	0004455	0049			14419	738							
003	OBS	0084	-0176	34361	2768					14416	729	213			022	282	789	
	STD	0100	-0177	3437	2769	0004103	0060			14418	722							
	STD	0125	-0179	3438	2769	0004029	0070			14422	715							
003	OBS	0125	-0179	34377	2769					14422	715	201			021	296	789	
	STD	0150	-0180	3438	2770	0003988	0080			14425	715							
003	OBS	T0167	-0181	34384	2770					14428	715	201			004	299	789	
	STD	0200	-0179	3439	2770	0003884	0100			14434	704							
003	OBS	0244	-0177	34404	2771					14443	686	214			002	301	789	
	STD	0250	-0176	3441	2772	0003735	0119			14444	686							
	STD	0300	-0154	3443	2773	0003591	0137			14463	667							
003	OBS	T0323	-0133	34443	2773					14477	648	205			002	300	786	
	STD	0400	-0012	3456	2778	0003259	0172			14548	538							
003	OBS	0405	-0006	34569	2778					14551	532	214			001	297	781	
	STD	0500	0036	3463	2781	0003028	0203			14587	495							
	STD	0600	0063	3468	2783	0002849	0232			14617	469							
003	OBS	T0663	0072	34695	2784					14632	458	240			001	297	779	
	STD	0700	0069	3470	2784	0002793	0261			14636	457							
	STD	0800	0062	3470	2785	0002752	0288			14650	455							
003	OBS	T0843	0060	34695	2785					14656	454	220			000	299	779	
035	OBS	T0880	0059	34701	2785					14662	461	214			000	310	779	
	STD	0900	0055	3470	2785	0002669	0315			14664	463							
	STD	1000	0043	3470	2786	0002581	0342			14675	469							
003	OBS	T1079	0042	34697	2786					14688	472	226			000	318	779	
	STD	1100	0043	3470	2786	0002617	0368			14692	473							
035	OBS	T1120	0044	34695	2786					14696	473	215			000	316	778	
	STD	1200	0039	3469	2786	0002612	0394			14707	476							
	STD	1300	0033	3469	2786	0002580	0420			14721	481							
035	OBS	1360	0029	34690	2786					14729	484	215			000	313	779	
	STD	1400	0027	3469	2786	0002537	0445			14735	488							
	STD	1500	0021	3469	2787	0002485	0471			14749	496							
035	OBS	1650	0014	34688	2787					14772	503	216			000	314	778	
	STD	1750	0011	3468	2786	0002464	0532			14787	504							
035	OBS	1864	0007	34676	2786					14805	505	217			000	312	779	
	STD	2000	0001	3468	2787	0002380	0593			14826	512							
035	OBS	2040	0000	34677	2787					14832	514	216			000	315	779	
035	OBS	T2334	-0009	34675	2787					14878	526	216			000	316	775	
	STD	2500	-0012	3467	2787	0002244	0709			14906	532							
035	OBS	T2636	-0014	34671	2787					14928	535	215			000	315	779	
035	OBS	2834	-0017	34670	2787					14961	538	216			000	311	779	
	STD	3000	-0018	3467	2787	0002159	0819			14990	541							
035	OBS	3036	-0018	34668	2787					14996	542	213			000	314	779	
035	OBS	3238	-0023	34643	2785					15029	548	215			000	315	779	
035	OBS	3441	-0023	34666	2787					15065	555	214			000	314	779	
035	OBS	T3475	-0024	34664	2787					15071	553	213			001	311	779	
035	OBS	T3500	-0023	34665	2787					15076	546	211			000	314	780	

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	TIME HR:1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
							CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	
318085	GL	71361S	030361W	555	10	03 16 025	1965	024	3848	35	00	10	X		X1	7 7	0029
				WATER		WIND		AIR TEMP. °C		BARO- METER		DRY BULB		WET BULB		VIS. CODE	
				COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	NO.	DEF.	NO.	DEF.	NO.	DEF.	NO.	DEF.	NO.	DEF.
						09	S04	877	-033	-045	8	24					
MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME KNOWALT-BTD	Δ ρ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SIO ₄ -Si μg - dl/l	pH	S C
		STD	0000	-0185	3406	2744	0006527	0000	14394	820							
014		OBS	0000	-0185	34060	2744			14394	820	144		008	234	066	794	
		STD	0010	-0185	3406	2744	0006535	0007	14395	831							
014		OBS	0010	-0185	34058	2744			14395	831	147		009	235	065	800	
		STD	0020	-0186	3405	2743	0006558	0013	14397	829							
014		OBS	0026	-0186	34052	2743			14397	828	155		009	236	065	800	
		STD	0030	-0185	3412	2749	0006047	0019	14400	800							
		STD	0050	-0177	3440	2771	0003902	0029	14410	693							
014		OBS	0051	-0177	34410	2772			14411	689	199		009	285	077	789	
		STD	0075	-0178	3442	2773	0003731	0039	14414	687							
		STD	0100	-0180	3443	2774	0003636	0048	14418	685							
014		OBS	0102	-0180	34433	2774			14418	685	208		002	292	078	785	
		STD	0125	-0170	3444	2774	0003572	0057	14427	668							
		STD	0150	-0154	3445	2775	0003531	0066	14439	648							
014		OBS	0152	-0152	34456	2775			14440	646	210		000	000	081	786	
		STD	0200	-0103	3450	2777	0003311	0083	14472	598							
014		OBS	T0204	-0099	34504	2777			14474	594	215		000	300	088	783	
		STD	0250	-0034	3457	2780	0003082	0099	14513	540							
		STD	0300	0019	3463	2782	0003917	0114	14546	498							
014		OBS	T0306	0024	34633	2782			14550	494	218		000	304	099	780	
		STD	0400	0066	3469	2784	0002808	0143	14585	464							
014		OBS	T0410	0068	34690	2784			14588	462	218		000	313	106	779	
		STD	0500	0071	3470	2784	0002756	0170	14604	458							
014		OBS	T0514	0071	34699	2784			14606	457	218		000	312	111	780	
		STD	0600	0065	3470	2785	0002721	0198	14618	458							
		STD	0700	0058	3470	2785	0002688	0225	14631	459							
		STD	0800	0051	3470	2785	0002631	0252	14645	460							
014		OBS	T0812	0050	34697	2785			14647	460	245		002	310	118	780	
		STD	0900	0044	3469	2785	0002657	0278	14659	467							
		STD	1000	0038	3469	2786	0002615	0305	14673	474							
014		OBS	1020	0037	34689	2786			14676	475	233		002	317	120	780	
		STD	1100	0033	3469	2786	0002592	0331	14687	478							
		STD	1200	0027	3469	2786	0002564	0356	14701	482							
038		OBS	1204	0027	34686	2786			14702	482	219		000	312	121	779	
014		OBS	T1280	0025	34686	2786			14714	484	229		000	315	123	780	
		STD	1300	0024	3469	2786	0002539	0382	14717	486							
		STD	1400	0018	3469	2786	0002487	0407	14731	495							
038		OBS	T1441	0016	34686	2786			14737	496	240		000	322	120	781	
		STD	1500	0014	3468	2786	0002466	0432	14746	503							
015		OBS	T1546	0012	34683	2786			14753	506	249		003	310	125	775	
038		OBS	1746	-0007	34682	2787			14778	508	220		000	321	120	780	
		STD	1750	-0007	3468	2787	0002294	0491	14779	508							
038		OBS	1946	-0005	34669	2786			14813	519	223		000	318	121	784	
		STD	2000	-0006	3467	2786	0002369	0550	14822	524							
038		OBS	2247	-0012	34667	2786			14862	536	218		000	318	119	782	
038		OBS	2449	-0017	34667	2787			14895	535	224		000	311	120	782	
		STD	2500	-0018	3467	2787	0002221	0664	14903	538							
038		OBS	T2651	-0021	34667	2787			14928	544	217		000	314	121	785	
038		OBS	2954	-0022	34669	2787			14980	550	219		000	316	120	782	
		STD	3000	-0023	3467	2787	0002110	0773	14988	550							
038		OBS	T3175	-0025	34665	2787			15017	550	215		000	311	120	782	
038		OBS	T3464	-0027	34667	2787			15067	554	217		000	311	120	782	

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT INSTR	% ASDEN SQUARE		STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOON STATION NUMBER		
					10"	1"	MO	DAY	HR./T/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT	
318085	GL	70388S	033323W		555	03	03	17	056	1969	025		4297	34	00	0	X		X7	X	9		0030
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		(mbars)	DRY BULB	WET BULB											
								17	S06	878	-056	-067	4	1									
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ OYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	DATE						
		STD	0000	-0183	3400	2739	0006992	0000	14394	812													
068		OBS	0000	-0183	34000	2739			14394	812	148			009	257	066	800						
		STD	0010	-0183	3399	2738	0007032	0007	14395	813													
068		OBS	0010	-0183	33994	2738			14395	813	160			010	252	066	799						
		STD	0020	-0184	3399	2738	0007022	0014	14396	813													
068		OBS	0027	-0185	33994	2738			14397	813	157			009	258	066	799						
		STD	0030	-0184	3405	2743	0006586	0021	14399	796													
		STD	0050	-0177	3437	2769	0004133	0032	14410	704													
068		OBS	0053	-0176	34405	2771			14412	694	195			005	287	076	790						
		STD	0075	-0178	3442	2773	0003733	0041	14415	686													
		STD	0100	-0180	3443	2774	0003637	0051	14418	676													
068		OBS	0106	-0180	34432	2774			14419	674	203			004	290	078	790						
		STD	0125	-0174	3443	2774	0003621	0060	14425	667													
		STD	0150	-0167	3443	2773	0003621	0069	14432	657													
068		OBS	0159	-0164	34433	2773			14435	654	194			000	296	079	789						
		STD	0200	-0078	3452	2778	0003264	0086	14483	580													
068		OBS	0212	-0057	34536	2778			14495	562	214			000	321	090	784						
		STD	0250	-0008	3459	2780	0003068	0102	14525	522													
		STD	0300	0038	3465	2782	0002881	0117	14555	484													
068		OBS	T0317	0050	34659	2782			14564	475	223			000	311	101	780						
		STD	0400	0070	3469	2784	0002798	0145	14587	461													
068		OBS	0421	0072	34692	2784			14591	459	219			000	314	107	781						
		STD	0500	0069	3470	2784	0002759	0173	14603	460													
068		OBS	T0531	0068	34698	2784			14608	460	223			000	322	112	780						
		STD	0600	0064	3470	2785	0002728	0200	14617	461													
		STD	0700	0057	3470	2785	0002703	0227	14631	461													
		STD	0800	0051	3469	2785	0002681	0254	14645	462													
068		OBS	T0835	0049	34692	2785			14650	462	227			000	326	117	781						
		STD	0900	0045	3469	2785	0002665	0281	14659	465													
		STD	1000	0038	3469	2786	0002615	0307	14673	470													
068		OBS	T1042	0036	34684	2785			14679	472	228			000	327	119	781						
		STD	1100	0033	3468	2785	0002654	0334	14687	473													
		STD	1200	0028	3468	2785	0002615	0360	14702	476													
		STD	1300	0023	3468	2786	0002575	0386	14716	480													
045		OBS	T1321	0022	34679	2786			14719	481	227			000	319	116	781						
		STD	1400	0018	3468	2786	0002554	0412	14731	487													
		STD	1500	0014	3468	2786	0002533	0437	14746	494													
045		OBS	T1561	0011	34674	2786			14755	498	227			000	324	117	781						
		STD	1750	0003	3467	2786	0002462	0500	14784	503													
045		OBS	1877	-0002	34665	2786			14803	508	224			000	311	123	780						
		STD	2000	-0007	3466	2786	0002403	0560	14822	515													
045		OBS	2080	-0009	34662	2786			14834	519	228			000	314	124	779						
045		OBS	2284	-0013	34671	2787			14868	526	221			000	314	123	779						
		STD	2500	-0017	3467	2787	0002210	0676	14903	530													
045		OBS	2589	-0019	34668	2787			14918	533	225			000	313	121	782						
045		OBS	T2778	-0022	34661	2786			14949	541	225			000	313	123	780						
		STD	3000	-0025	3466	2787	0002137	0784	14987	553													
045		OBS	3097	-0026	34661	2787			15003	555	227			004	309	122	779						
045		OBS	T3402	-0028	34659	2787			15056	552	224			000	311	120	781						

REFERENCE	SHIP CODE	LATITUDE ° ' 1/10	LONGITUDE ° ' 1/10	DEPT METER	M/RSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER		
					10"	1"	MO	DAY	HR. 1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT PER	SEA	TYPE		AMT				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO- METER (mb)												AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS
318085	GL	68368S	032036W		519	82	03	18	055	1969		026		4483	11	00	0	X		X2	7	8		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	REF INDEX	W. RESDN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT				
318085	GL		64506S	041247W		520	41	03	20	145	1969		027	4572	22	26	0	5		X9	6	5		0032		
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
																	26	505	925	-009	-012	8	14			
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - at/l$	TOTAL-P $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	NO ₃ -N $\mu g - at/l$	SiO ₄ -Si $\mu g - at/l$	pH	S CC									
		STD	0000	-0021	3393	2727	0008091	0000	14468	774																
138	OBS	0000	-0021	33927	2727				14468	774	140			007	197	075	793									
	STD	0010	-0024	3392	2727		0008121	0008	14469	774																
138	OBS	0010	-0024	33921	2727				14469	774	142			005	192	075	799									
	STD	0020	-0072	3407	2741		0006781	0016	14450	734																
	STD	0030	-0111	3419	2752		0005718	0022	14435	702																
	STD	0050	-0167	3437	2768		0004190	0032	14415	658																
138	OBS	0050	-0167	34366	2768				14415	658	211			009	277	085	778									
	STD	0075	-0171	3438	2769		0004058	0042	14417	663																
156	OBS	0096	-0174	34428	2773				14420	667	190			007	296	086	774									
	STD	0100	-0165	3444	2774		0003608	0052	14425	645																
138	OBS	0100	-0165	34439	2774				14425	645	212			008	289	086	774									
	STD	0125	-0108	3446	2774		0003625	0061	14456	600																
	STD	0150	-0064	3449	2775		0003568	0070	14481	562																
156	OBS	0197	-0022	34591	2781				14510	504	206			003	313	103	768									
	STD	0200	-0021	3460	2781		0002935	0086	14511	501																
138	OBS	0200	-0021	34599	2781				14511	501	225			007	325	104	768									
	STD	0250	0024	3467	2785		0002643	0100	14541	465																
156	OBS	0298	0055	34692	2785				14563	430	224			001	331	118	764									
	STD	0300	0055	3469	2785		0002671	0113	14563	501																
138	OBS	0300		34692					501		242			005	327	115	768									
	STD	0400	0052	3470	2786		0002600	0139	14579	465																
156	OBS	0499	0048	34701	2786				14593	442	230			001	331	124	764									
	STD	0500	0048	3470	2786		0002574	0165	14594	442																
	STD	0600	0043	3470	2786		0002584	0191	14608	437																
	STD	0700	0038	3469	2786		0002593	0217	14622	432																
156	OBS	0701	0038	34691	2786				14622	432	216			019	333	124	768									
	STD	0800	0033	3469	2786		0002576	0243	14637	433																
	STD	0900	0028	3469	2786		0002549	0269	14651	433																
	STD	1000	0023	3469	2786		0002528	0294	14666	434																
	STD	1100	0018	3468	2786		0002504	0319	14680	434																
	STD	1200	0013	3468	2786		0002478	0344	14695	435																
156	OBS	T1205	0013	34682	2786				14696	435	217			001	322	126	771									
	STD	1300	0009	3469	2787		0002418	0368	14710	454																
	STD	1400	0006	3469	2787		0002368	0392	14726	471																
	STD	1500	0002	3469	2788		0002307	0416	14741	486																
156	OBS	T1712	-0005	34698	2789				14774	509	225			000	320	124	770									
	STD	1750	-0006	3470	2788		0002185	0472	14780	510																
	STD	2000	-0014	3469	2788		0002172	0526	14819	515																
156	OBS	T2222	-0020	34675	2787				14854	519	229			006	320	125	770									

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