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OCEANOGRAPHY OF THE GRAND BANKS REGION
AND THE LABRADOR SEA

April-June, August, and October 1969

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OCEANOGRAPHY OF THE GRAND BANKS REGION AND THE LABRADOR SEA

April-June, August, and October 1969

Martin J. Moynihan

and

Henry S. Andersen

WASHINGTON, D.C.

DECEMBER 1971

CGC CHINCOTEAGUE (WHEC 375)

CGC COOK INLET (WHEC 384)

Abstract

Oceanographic surveys off the Grand Banks of Newfoundland during April to June 1969 in support of the International Ice Patrol are discussed. In addition, two occupations of a section across the Labrador Sea from South Wolf Island, Labrador, to Cape Farewell, Greenland, are described. The circulation of the Grand Banks region based on dynamic topography charts and variations in the density and volume transport of the Labrador Current is discussed. Volume transports, mean temperatures, and heat transports of the Labrador and West Greenland Currents from 1948 through 1969 are presented.

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Oceanography of the Grand Banks Region and the Labrador Sea

April–June, August and October 1969

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and

Henry S. Andersen^{1,2}

INTRODUCTION

Two oceanographic cruises were conducted by the Coast Guard Oceanographic Unit in the spring of 1969 to the Grand Banks of Newfoundland. These cruises provided operational support for the International Ice Patrol program by describing the physical oceanography of this region affecting the drift and deterioration of icebergs. In addition, an oceanographic section from South Wolf Island, Labrador, to Cape Farewell, Greenland, was occupied in August and October to monitor the variability in the interchange of water between the Labrador Sea and the North Atlantic Ocean.

The first cruise of the 1969 Ice Patrol season was conducted by the CGC CHINTOTEAGUE (WHEC 375) from 2 to 28 April 1969. Ninety-one stations were occupied along the eastern and northeastern slopes of the Grand Banks to complete a survey of the dynamic topography from the Tail of the Banks to Cape Bonavista, Newfoundland. One hundred and thirty-one stations were occupied by the CGC COOK INLET (WHEC 384) during the 14 May to 9 June 1969 period of the second cruise. This cruise included a complete survey similar to that on the first cruise and repeat occupations of three standard monitoring sections across the Labrador Current.

During the period of 15–19 August 1969 CGC SHERMAN (WHEC 720) occupied 23 stations on the Ice Patrol section across the Labrador Sea from South Wolf Island, Labrador, to Cape Farewell, Greenland (fig. 32).

These stations were occupied after completion of an Ocean Station BRAVO patrol. The CGC WESTWIND (WAGB 281) occupied 17 stations on this section from 19 to 29 October 1969 during the Naval Oceanographic Office annual Eastern Arctic Ice Forecast Survey. This survey was incomplete, however, in that only 17 of a planned 20 stations were occupied. These stations were not synoptic enough for detailed section analysis due to the continuous storm conditions experienced in the Labrador Sea.

DATA ACQUISITION AND TREATMENT

Data were obtained with salinity-temperature-depth (STD) sensor systems on the CGC CHINCOTEAGUE, CGC COOK INLET, and CGC SHERMAN. Temperature data and water samples were collected by Nansen casts during part of the CGC CHINCOTEAGUE's cruise and on the CGC WESTWIND's cruise. The water samples were analyzed on board the vessels with inductive salinometers. The conductivity values obtained were converted to salinity by use of the International Oceanographic Tables published jointly by UNESCO and the National Institute of Oceanography of Great Britain (1966).

The STD data were quality controlled by comparison with temperatures and salinities obtained from deep-sea reversing thermometers and water samples collected at the surface and just above the STD sensor at the bottom of the cast. An average quality control correction for each section was determined from the differences between the STD data and the associated quality control samples on the individual stations. Corrections were applied to the STD data on a section when the average quality

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control correction for that section exceeded the manufacturer's stated accuracy for the STD system (± 0.02 C°, $\pm 0.03^\circ/\text{‰}$).

The data were processed using a DDP 116 computer on CHINCOTEAGUE and a PDP-8/S computer on COOK INLET. Dynamic heights and geostrophic current data for each section were transmitted to Commander, International Ice Patrol in New York to provide the necessary real-time information for the prediction of iceberg drift. Data from the SHERMAN and WESTWIND surveys were returned to the Oceanographic Unit for processing.

The data from all vessels were processed further and quality controlled at the Coast Guard Oceanographic Unit on a PDP-5 computer. Dynamic heights and corrections of deep-sea reversing thermometers were computed utilizing programs discussed by O'Hagan (1964). Anomalies of dynamic height in water shallower than the reference level were computed in a manner similar to that described by Helland-Hansen (1934); the methods used are described in detail by Kollmeyer (1967). Volume and heat transports were computed for selected sections using the method of subdividing each oceanographic section into solenoids for computations as described by Kollmeyer (1967).

The data presented in appendix A are reproduced from computer listings from the National Oceanographic Data Center (NODC) in the cruise listing format. Anomalies of dynamic depth in the listings were computed by NODC but all discussion of dynamic heights and computations involving them in this report are based on computations by the Coast Guard Oceanographic Unit.

The oceanographic work of the first and second Ice Patrol cruises was under the direction of LCDR Martin J. Moynihan, USCG, who was assisted by ENS Henry S. Andersen, USCGR. Chief Marine Science Technician William T. O'Brien and Marine Science Technicians William M. Brown, Rex A. Doescher, Richard L. King, and Marshall R. Patmos from the Coast Guard Oceanographic Unit assisted on the first cruise and Marine Science Technicians William E. Heller, Stephan N. Green, Crae W. Hocke, Richard L. King, and Kevin P. McGonigal, and Mr. Mack S. Barber, a student trainee, assisted during the second cruise. The

program on the CGC SHERMAN was accomplished by ship's personnel directed from the Coast Guard Oceanographic Unit. The program on the CGC WESTWIND was accomplished by ship's personnel under the direction of oceanographers from the Naval Oceanographic Office.

SURVEYS ON THE GRAND BANKS

Prior to 1966 the oceanographic operations in support of the International Ice Patrol were conducted to obtain comprehensive areal surveys along the eastern slopes of the Grand Banks. In that year the practice of serially re-occupying three standard sections (A2, A3, and A4), rather than conducting a comprehensive areal survey, was instituted. This practice was begun (Wolford, 1969) because experience had shown that large, short-term (1-2 weeks) fluctuations occurred in the volume flow of the Labrador Current, and therefore comprehensive areal surveys requiring a timespan comparable to the period of the short-term fluctuations would not be sufficiently synoptic. It was hoped that rapid occupations of the three standard sections would provide synoptic information which would be adequate, when used with the charts of average monthly surface dynamic topography prepared by Soule (1964), to draw conclusions about the circulation in the Grand Banks region. Although the rapid occupations of the three standard sections improved synopticity, the large distances between sections made it difficult to relate features on one standard section with similar features on another standard section. To remedy this shortcoming, during the 1969 Ice Patrol season a general survey of the oceanographic conditions along the eastern slope of the Grand Banks was conducted on both cruises from Cape Bonavista, Newfoundland, to south of the Tail of the Banks. These general surveys were followed on each cruise by reoccupations of selected sections to investigate phenomena of particular interest and to obtain information on the persistence of oceanographic features along the eastern slope of the Grand Banks.

The average surface circulation south and east of the Grand Banks of Newfoundland during April and May can be inferred from charts of the mean monthly dynamic topography of the sea surface relative to the 1,000-decibar

surface prepared by Soule, 1964 (figs. 1 and 2). These charts are based on 22 years of data with equal weight being given to each year represented. Broken-line contours have been used in areas where the data base is 6 years or less. The charts show the Labrador Current flowing south between the 100 fathom and 1,000 fathom contours on the eastern slope of the Grand Banks. To the east of the Labrador Current is a dynamic trough consisting of water of low specific volume resulting from the mixing of Labrador Current water and North Atlantic Current water. The Labrador Current flows south on the western side of the dynamic trough and the North Atlantic Current flows north on the eastern side of the trough. A pair of meanders present at about 41°N , 50°W and 43°N , 46°W are part of the North Atlantic Current.

RESULTS OF THE 1969 CRUISES

North Atlantic Current Meander

During the first survey of the season, the meander of the North Atlantic Current was farther to the northwest and followed a more tightly curved path than normal. This may be seen by comparison of the positions of the 971.0, 971.1, and 971.2 dynamic-meter contours observed during the first survey in April (fig. 3), with the positions of these contours on the April normal dynamic topography chart (fig. 1). During subsequent surveys of the 1969 season, the meander moved progressively to the northwest (figs. 4, 5, and 6).

Tail of the Banks

The dynamic topography south of the Tail of the Banks was particularly complex during the 1969 Ice Patrol season. The survey during 6-7 April (fig. 3) showed a westward flow around the Tail of the Banks, south of which lay an unusually wide (111 km) dynamic trough. Looking southward from the trough, the dynamic topography indicated a fairly narrow but intense flow to the east, then south of that, a flow to the west. During the 26-27 May occupation of A4 (fig. 4), the dynamic trough was markedly narrower (18 km). Narrow eastward and westward flows were evidenced south of the trough, with a wide and

intense eastward flow present on the southern portion of the section. During the final survey of A4 on 3 and 4 June (fig. 6), the trough was nonexistent, and an eastward transport was found on the slope of the Tail of the Banks.

Slope Water Current

The occupation of standard section A4 during 3-4 June 1969, which extended further south than the usual Ice Patrol section, showed Slope Water Current (Slope Water is defined as water which is slightly less saline at all temperatures than Gulf Stream or North Atlantic Drift Water) and the Gulf Stream as separate currents crossing $50^{\circ}20'\text{W}$ longitude north of $42^{\circ}30'\text{N}$ and south of $41^{\circ}30'\text{N}$, respectively. A distinct westward countercurrent was found between them (fig. 26). Fuglister (1963) pointed out these features based upon the "Gulf Stream '60" expeditions and the past data of the Ice Patrol, but left the relationship between the two currents unclear. Mann (1967) suggested that the Gulf Stream meanders north and south in the vicinity of 50°W longitude with a path shaped like the letter S, and portrayed the westward countercurrent as part of the meander which recurves cyclonically to contribute to the eastward transport of the Slope Water Current. This had been previously hypothesized by Soule, et al. (1960, 1961).

From April to June 1969 (figs. 7, 22, 26), the Slope Water Current and Gulf Stream migrated northward along section A4 and appeared to cause a decrease in the size of the trough between them and the Labrador Current (figs. 3, 4, 6). This northward progress of the Slope Water Current also appeared to reduce the westward flow of the Labrador Current on the slope at the Tail of the Banks and no negative temperature water was found flowing westward during the 1969 occupations of section A4. Because only the June occupation of section A4 completely transected both the Slope Water Current and the Gulf Stream, it is impossible to compare the volume transports of these currents with the earlier 1969 occupations. However, the eastward transport of 44.3 sverdrups through section A4 (above the 1,000 decibar level) on the June occupation compares favorably with previous Ice Patrol measurements and those of other investigations.

Cape Bonavista-Grand Banks

The dynamic topography north and east of Cape Bonavista indicates that the slope band of the Labrador Current was more intense along the northeastern slope of the Grand Banks during mid-April (fig. 3) than during mid-May (fig. 4). The mid-April survey also substantiates the hypothesis (Smith, et al., 1937) that part of the southward transport immediately east of Cape Bonavista spreads out over the Grand Banks or flows south along the Avalon Peninsula. During the April survey on section A1a, two cores of water with temperatures less than -0.5°C were observed (fig. 13), but downstream on section A1b, only one core was observed a day later (fig. 14). The chart of dynamic topography (fig. 3) suggests that the core of cold water on section A1b is related to the more offshore core observed on section A1a. The water comprising the inshore cold core apparently either spread over the Grand Banks or flowed down the east coast of the Avalon Peninsula.

During the comprehensive areal survey of 16-27 May (fig. 4), the observed dynamic

topography indicated that part of the transport of the Labrador Current along the southeastern slope of the Grand Banks passed over the northeastern corner of the Grand Banks and not through the bathymetric trough between the Grand Banks and Flemish Cap.

TIME VARIATION OF THE LABRADOR CURRENT

Estimates of the degree of development of the Labrador Current cannot be made solely from the charts of the surface dynamic topography, so particular attention was paid to the time variation in the transport of the Labrador Current through section A3. Section A3 makes a complete transect of the Labrador Current from the dynamic trough east of the current to Grand Banks west of the current. Transports were computed for the total flow of the Labrador Current, defined at section A3 as the total southward flow west of the dynamic trough, and for the cold core of the Labrador Current, defined at section A3 as that part of the Labrador Current possessing temperatures colder than 2°C and salinities less than 34.3‰ .

TABLE 1. *Summary of volume transport of Labrador Current through Section A3*

Date of occupation	Total flow ($\times 10^6 \text{ m}^3/\text{sec}$)	Cold core flow ($\times 10^6 \text{ m}^3/\text{sec}$)	Ratio cold core flow/total flow
10-12 April 1969	4.53	2.69	0.594
21-22 May 1969	4.03	1.84	.457
28-29 May 1969	5.50	3.91	.711
1-2 June 1969	2.77	1.99	.719

(table I). During the 12-day interval from 22 May to 2 June, the cold core transport doubled and then decreased to its former value while the total transport increased to its maximum value and then decreased to its minimum observed value during the Ice Patrol season. The increase in total transport from 21 to 22 May to its maximum on 28-29 May was due to the increase in the cold core transport as indicated by the ratio of the cold core flow in the total transport. The decrease in total transport from its peak value to the minimum value on 1-2 June showed a lessening of the flow of the Labrador Current but no change in the ratio of cold core transport to total transport.

Variation in the gradient of dynamic height across the Labrador Current, due to changes at

either or both ends of the transect, affects the calculations of current velocity and volume transport. Profiles of sea surface dynamic height along section A3 (fig. 27) indicate that the station possessing the lowest dynamic height (trough station) was farther east during the second occupation. The broadening of the trough during this occupation was accompanied by an anomalous banding (fig. 19) resulting in computed transports of warm, saline ($>6^{\circ}\text{C}$, $>34.6\text{‰}$) water southward along the western side of the trough and relatively cold, fresh ($<2^{\circ}\text{C}$, $<34.4\text{‰}$) water northward along the eastern side of the trough.

The differences in dynamic height at a given depth between the trough station and the next station immediately west were plotted versus

depth for the three occupations of section A3 from 21 May to 2 June (fig. 28). During the final occupation of A3 during 1–2 June, the total transport between stations 577 and 576 (0.83×10^6 m³/sec) was less than the total transport between the corresponding stations, 506 and 505 (1.31×10^6 m³/sec), during the 21–22 May occupation of A3, even though the gradient in surface dynamic height was greater between stations 577 and 576 than between stations 506 and 505 (fig. 28). This apparently anomalous result is the consequence of the gradient of surface dynamic height between stations 577 and 576 primarily depending on the characteristics of the water column above 250 meters.

Profiles of density (σ_t) for the three occupations of A3 from 21 May to 2 June (figs. 29, 30, and 31) show an increase in density at the trough stations, which was associated with the decrease in dynamic height observed during this period. During the 28–29 May survey, when the observed transport of the total Labrador Current was at a maximum, water densities observed below the 400 meter level along the slope of the banks were less than during the preceding and succeeding occupations. These changes in density were due primarily to changes in salinity. During the period 20 May to 2 June, the salinity of the water column below 30 m at the trough station increased (figs. 19, 23, and 25), while at the adjacent station the salinity reached a minimum during the 28–29 May occupation of A3.

Labrador Sea Section

Oceanographic conditions along the Labrador Sea section from South Wolf Island, Labrador, to Cape Farewell, Greenland, occupied by CGC SHERMAN from 15 to 19 August 1969 (figs. 32 and 33) were similar to those observed on previous occupations. Southward flowing Labrador Current Water was present in two branches (fig. 34); a shelf band ($<1.0^\circ\text{C}$, $<34.4^\circ/\text{‰}$) between stations 110 and 108, and a slope band ($>0^\circ\text{C}$, $>34.0^\circ/\text{‰}$) between stations 88 and 91. At the Greenland side of this section, the northward flowing West Greenland Current was found between stations 100 and 104. However, the cold ($<1^\circ\text{C}$) East Greenland

Current component was found only at station 104; sea ice prevented the occupation of any stations nearer to shore.

The surface temperatures during the October WESTWIND occupation were cooler by 4 to 6°C than the August occupation, but the temperatures over the Labrador and Greenland coastal shelves were not as cold. The cold core of the Labrador Current was smaller in October and had a minimum temperature of -1.38°C , versus -1.54°C in August (figs. 35 and 36). Only a small amount of cold East Greenland Current Water ($<1^\circ\text{C}$) was found near the surface on station 55 at the eastern end of this section (fig. 36).

The annual occupation of this section by the Ice Patrol is valuable in monitoring the long-term variability in the interchange of water between the Labrador Sea and the North Atlantic Ocean. This interchange plays an important role in the transport of the Labrador Current, which carries icebergs southward from Baffin Bay to the North Atlantic shipping lanes off the Grand Banks of Newfoundland. The 1969 values of volume transport, mean temperature, and heat transport for the Labrador and West Greenland Currents through this section above a 1,500-meter reference level are presented in table II with the values from all previous occupations since 1948. The means and standard deviations of these values are also presented.

Dinsmore and Moynihan (in press) point out that large year-to-year fluctuations in the volume transports of the Labrador and West Greenland currents and in the net transport mask the longer period cyclic changes. No general correlation could be found between the volume transport and the severity of the iceberg seasons even though the largest transports of these currents occurred in 1957, which was one of the most severe years in the annals of the Ice Patrol. They also pointed out that there is supporting evidence for an overall net transport into the Labrador Sea above the 1,500 meter reference level with sinking and outflow at deeper levels. This was originally hypothesized by Smith, Soule, and Mosby (1937) and recently corroborated by data collected from neutrally buoyant float measurements by Swallow and Worthington (1969).

TABLE 2. *Summary of transports through Labrador Sea section, 1948-1969*

Labrador Current				West Greenland Current			
	Volume (sv) 1.	Mean temperature (°C)	Heat flow ($\times 10^6$ C° m ³ /sec)	Volume (sv) 1.	Mean temperature (°C)	Heat flow ($\times 10^6$ C° m ³ /sec)	Net Volume transport ² . (sv) 1.
1948 11-17 July	3.01	2.21	6.65	1.52	3.93	5.97	+1.2
1949 5-9 July	5.16	2.30	11.87	2.52	3.62	9.12	+1.8
1950 31 July-5 Aug	5.92	2.63	15.57	7.76	4.26	33.06	+1.3
1951 18-23 July	5.30	2.63	13.93	5.28	3.68	19.41	+ .8
1952 17-20 July	6.37	2.63	16.76	5.93	3.79	22.50	- .8
1953 16-20 July	5.02	2.43	12.19	7.23	3.86	27.92	-3.7
1954 25-30 Aug	7.84	2.39	18.72	8.95	4.95	44.33	-1.5
1955 15-18 July	5.02	2.62	13.15	5.66	4.74	26.85	-1.2
1956 15-20 July	4.18	1.75	7.33	7.32	4.10	30.01	-2.5
1957 26-29 July	10.22	2.96	30.26	9.74	4.15	40.39	+1.4
1958 1-6 July	5.57	2.40	13.36	8.36	4.48	37.40	-1.0
1959 5-9 Aug	5.14	2.25	11.55	7.56	4.29	32.40	-2.4
1960 10-13 July	5.27	2.56	13.47	6.09	4.95	30.17	-1.9
1961 8-11 July	7.30	2.50	18.22	5.98	4.69	28.07	+1.3
1962 13-17 July	6.45	2.39	15.42	6.10	4.26	25.95	-1.5
1963 17-21 July	5.50	2.30	12.68	2.44	4.71	11.50	+1.9
1964 23-28 July	2.74		4.86	6.19		30.62	-2.7
1966 3-7 June	6.55		13.76	6.26		16.10	- .6
1968 24-26 Oct	4.81		12.09	8.86		38.90	-3.2
1969 15-19 Aug	4.94	2.42	13.45	6.02	4.50	28.62	-3.5
Mean	5.62	2.43	13.76	6.29	4.29	26.96	-1.0
Standard deviation	1.64	.25	5.22	2.17	.43	10.34	1.8

1. sv= 10^6 m³/sec.

2. Positive sign (+) indicates southward net transport.

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Figure 1. Normal dynamic topography (dynamic meters) of sea surface relative to 1,000 decibars for April (Soule, 1964).

Figure 2. Normal dynamic topography (dynamic meters) of sea surface relative to 1,000 decibars for May (Soule, 1964).

Figure 4. Sea-surface dynamic topography (dynamic meters) relative to 1,000 decibars, CGC COOK INLET, 16-27 May 1969.

Figure 5. Sea-surface dynamic topography (dynamic meters) relative to 1,000 decibars, CGC COOK INLET, 26-30 May 1969.

Figure 6. Sea-surface dynamic topography (dynamic meters) relative to 1,000 decibars, CGC COOK INLET, 29 May-4 June 1969.

Figure 7. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A4, CGC CHINCOTEAGUE, 6 April 1969.

Figure 8. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A3b, CGC CHINCOTEAGUE, 8 April 1969.

Figure 9. Temperature (°C) and salinity (‰) profiles for section A3a, CGC CHINCOTEAGUE, 9-10 April 1969.

Figure 10. Temperature (°C) and salinity (‰) profiles for section A3, CGC CHINCOTEAGUE, 10-12 April 1969.

Figure 11. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A2a, CGC CHINCOTEAGUE, 12 April 1969.

Figure 12. Temperature (°C) and salinity (‰) profiles for section A2, CGC CHINCOTEAGUE, 13-14 April 1969. Section A2 possesses a right-angle configuration with station 430 located at the corner.

Figure 13. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for NW. Bonavista triangle section (A1a), CGC CHINCOTEAGUE, 19-20 April 1969.

Figure 14. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for SE. Bonavista triangle section (A1b), CGC CHINCOTEAGUE, 20-21 April 1969.

Figure 16. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for SE Bonavista triangle section (A1b), CGC COOK INLET, 16-17 May 1969.

Figure 15. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for east-west portion of section A2, CGC CHINCOTEAGUE, 23-24 April 1969.

Figure 17. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A2, CGC COOK INLET, 18-20 May 1969. Section A2 possesses a right-angle configuration with station 478 located at the corner.

STATION NUMBER

Figure 18A. Temperature ($^{\circ}\text{C}$) profile for section A2a, CGC COOK INLET, 20-21 May 1969.

STATION NUMBER

Figure 18B. Salinity (‰) profile for section A2a, CGC COOK INLET, 20-21 May 1969.

Figure 19. Temperature (°C) and salinity (‰) profiles for section A3, CGC COOK INLET, 21-22 May 1969.

Figure 20. Temperature (°C) and salinity (‰) profiles for section A3a, CGC COOK INLET, 23-24 May 1969.

Figure 21. Temperature (°C) and salinity (‰) profiles for section A3b, CGC COOK INLET, 24-25 May 1969.

Figure 22. Temperature (°C) and salinity (‰) profiles for section A4, CGC COOK INLET, 26-27 May 1969.

Figure 23. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A3, CGC COOK INLET, 28-29 May 1969.

Figure 24. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for section A2, CGC COOK INLET, 29-30 May 1969. Section A2 possesses a right-angle configuration with station 560 located at the corner.

Figure 25. Temperature (°C) and salinity (‰) profiles for section A3, CGC COOK INLET, 1-2 June 1969.

Figure 26A. Temperature ($^{\circ}$ C) profile for section A4, CGC COOK INLET, 3-4 June 1969.

Figure 26B. Salinity (‰) profile for section A3, CGC COOK INLET, 3-4 June 1969.

Figure 27. Profiles of dynamic topography of the sea surface (dynamic meters) relative to 1,000 decibars for occupations of section A3 during the 1969 International Ice Patrol.

Figure 28. Plot of differences in dynamic height (dynamic millimeters) relative to 1,000 decibars versus depth between selected stations for the three occupations of section A3 from 21 May to 2 June 1969.

Figure 29. Density (σ_t) profile for section A3, CGC COOK INLET, 21-22 May 1969.

Figure 30. Density (σ_t) profile for section A3, CGC COOK INLET, 28-29 May 1969.

Figure 31. Density (σ_t) profile for section A3, CGC COOK INLET, 1-2 June 1969.

Figure 32. Coast Guard International Ice Patrol oceanographic section across the Labrador Sea between South Wolf Island, Labrador, and Cape Farewell, Greenland.

STATION NUMBER

Figure 33A. Temperature (°C) profile for Labrador Sea section, CGC SHERMAN, 15-19 August 1969.

Figure 33B. Salinity ($^{\circ}/_{\infty}$) profile for Labrador Sea section, CGC SHERMAN, 15-19 August 1969.

STATION NUMBER

Figure 34. Velocity (cm/sec) profile for Labrador Sea section, CGC SHERMAN, 15-19 August 1969. Positive values denote southward flow, negative values denote northward flow.

STATION NUMBER

Figure 35. Temperature (°C) and salinity (‰) profiles for Labrador Sea section, CGC WESTWIND, stations 38-42, 44-48, 19-23 October 1969.

Figure 36. Temperature ($^{\circ}\text{C}$) and salinity (‰) profiles for Labrador Sea section, CGC WESTWIND, stations 18-20, 58-60, 28-29 October 1969.

APPENDIX A

Oceanographic Data

Cruises Listed

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I.	CGC CHINCOTEAGUE, April 1969	49
II.	CGC COOK INLET, May-June 1969	118
III.	CGC SHERMAN, August 1969	230
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Codes Utilized

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. Aug. 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 meter.
Max. depth of samples	Depth of deepest sample to nearest multiple of 100 meters.
Wave observations:	
Dir.	Rounded to nearest multiple of 10 degrees.
Hgt.	In increments of $\frac{1}{2}$ m. Sum of 5 meters plus increments of $\frac{1}{2}$ m if 50 is added to direction.
Per.	If numerals 2 through 9 are entered, period in seconds is twice the numeric entry or $2 \times (\text{numeric entry}) + 1$. 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 10 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 10, 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; Z 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 Celsius.
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.
$\Sigma \Delta$ Dyn. M. $\times 10^3$	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 milliliters per liter entered to hundredths.
PO ₄ -P ug-at/l	Inorganic phosphate in microgram-atoms per liter entered to hundredths.
Total-P μg-at/l	Total phosphorus in microgram-atoms per liter entered to hundredths.
NO ₂ -N μg-at/l	Nitrite-nitrogen in microgram-atoms per liter entered to hundredths.
NO ₃ -N μg-at/l	Nitrate-nitrogen in microgram-atoms per liter entered to tenths.
SiO ₄ -Si μg-at/l	Silicate-silicon in microgram-atoms per liter entered to whole units.
pH	Entered to hundredths.

TABLE I.—Observed and interpolated oceanographic data from stations occupied by USCGC CHINCOTEAGUE,
6–24 April 1969, prepared from NODC Listing No. 31–8076

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DRIFT SPEED DIR	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					
CTRY CODE	IO. NO.					1/10	1/10	10°	1°	MO		DAY	HR.1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT			
318076	CC	3952 N	05024 W	114	90	04	06	140	1969	IIP	10373	5238	15	15	2	3			X1	0	6	0001						
						WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS														
						COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB	VIS. CODE															
						DT	SO	20	518	220	14	13	7	29														
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PD 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											
140		STD	0000	0778	3397	2652	0015233	0000	14807																			
		OBS	0000	0778	33970	2652			14807																			
		STD	0010	0795	3404	2655	0014966	0015	14816																			
005		OBS	0010	0795	34040	2655			14816																			
		STD	0020	0879	3437	2668	0013725	0029	14854																			
		OBS	0020	0879	34374	2668			14854																			
		STD	0030	0817	3426	2669	0013679	0043	14831																			
		OBS	0030	0817	34260	2669			14831																			
		OBS	0035	0770	34200	2671			14813																			
		STD	0050	0972	3472	2680	0012704	0070	14898																			
		OBS	0050	0972	34715	2680			14898																			
		STD	0075	1013	3491	2688	0011992	0100	14920																			
		OBS	0075	1013	34909	2688			14920																			
		STD	0100	1132	3532	2698	0011063	0129	14971																			
		OBS	0100	1132	35320	2698			14971																			
		STD	0125	1095	3526	2701	0010913	0157	14962																			
		OBS	0125	1095	35260	2701			14962																			
		STD	0150	0920	3488	2701	0010865	0184	14898																			
		OBS	0150	0920	34880	2701			14898																			
		STD	0200	0723	3481	2726	0008559	0232	14830																			
		OBS	0200	0723	34810	2726			14830																			
		OBS	0232	0803	35020	2731			14869																			
		STD	0250	0772	3493	2728	0008485	0275	14859																			
		OBS	0250	0772	34925	2728			14859																			
		OBS	0270	0755	35020	2738			14857																			
		OBS	0283	0685	34935	2741			14830																			
		STD	0300	0742	3507	2743	0007067	0314	14857																			
		OBS	0300	0742	35070	2743			14857																			
		OBS	0315	0750	35100	2745			14863																			
		STD	0400	0650	3506	2756	0005999	0379	14837																			
		OBS	0400	0650	35063	2756			14837																			
		STD	0500	0557	3502	2764	0005235	0435	14816																			
		OBS	0500	0557	35020	2764			14816																			
	STD	0600	0493	3502	2772	0004557	0484	14806																				
	OBS	0600	0493	35020	2772			14806																				
	STD	0700	0465	3503	2776	0004238	0528	14812																				
	OBS	0700	0465	35032	2776			14812																				
	STD	0800	0413	3497	2777	0004174	0570	14806																				
	OBS	0800	0413	34970	2777			14806																				
	STD	0900	0398	3497	2779	0004091	0612	14816																				
	OBS	0900	0398	34970	2779			14816																				
	STD	1000	0413	3501	2780	0004095	0653	14840																				
	OBS	1000	0413	35007	2780			14840																				
	STD	1100	0387	3499	2781	0004001	0693	14845																				
	OBS	1100	0387	34989	2781			14845																				
	STD	1200	0390	3500	2782	0004033	0733	14863																				
	OBS	1200	0390	35002	2782			14863																				
	STD	1300	0393	3502	2783	0004036	0774	14882																				
	OBS	1300	0393	35019	2783			14882																				
	STD	1400	0392	3503	2784	0004055	0814	14898																				
	OBS	1400	0392	35027	2784			14898																				
	STD	1500	0385	3503	2785	0004031	0855	14912																				
	OBS	1500	0385	35030	2785			14912																				

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HAUSDEN 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
CTRY CODE	ID. NO.					10"	1'	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE	
318076	CC		4020 N	05020 W	150	00	04	06	167	1969	IIP	10374	4184	15	15	2	2		X1	0	6	0002
		WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
		DT	SD	20	S18	193	13	13	7	35												
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-1107	Σ Δ D DYN. M. X 10 ³	SDNO 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						
167	STD		0000	0693	3355	2631	0017228	0000	14769													
	OBS		0000	0693	33550	2631											14769					
005	STD		0010	0670	3353	2632	0017098	0017	14761													
	OBS		0010	0670	33530	2632											14761					
	OBS		0018	0615	33550	2641			14741													
	STD		0020	0580	3354	2645	0015941	0034	14727													
	OBS		0020	0580	33540	2645											14727					
	STD		0030	0545	3362	2655	0014951	0049	14715													
	OBS		0030	0545	33620	2655											14715					
	OBS		0040	0535	33680	2661			14713													
	STD		0050	0550	3378	2667	0013810	0078	14723													
	OBS		0050	0550	33783	2667											14723					
	OBS		0065	0567	33875	2673			14733													
	STD		0075	0564	3389	2674	0013231	0112	14734													
	OBS		0075	0564	33886	2674												14734				
	STD		0100	0468	3407	2700	0010804	0142	14701													
	OBS		0100	0468	34070	2700												14701				
	OBS		0110	0448	34180	2711			14696													
	STD		0125	0535	3447	2724	0008587	0166	14738													
	OBS		0125	0535	34470	2724												14738				
	OBS		0141	0705	34810	2728			14813													
	STD		0150	0650	3470	2727	0008320	0187	14791													
OBS		0150	0650	34700	2727	14791																
OBS		0180	0507	34600	2737			14737														
STD		0200	0640	3484	2740	0007222	0226	14798														
OBS		0200	0640	34840	2740												14798					
OBS		0235	0577	34820	2746			14778														
OBS		0245	0638	34930	2747			14805														
STD		0250	0634	3491	2746	0006683	0261	14804														
OBS		0250	0634	34912	2746												14804					
STD		0300	0517	3484	2755	0005842	0292	14764														
OBS		0300	0517	34838	2755												14764					
OBS		0341	0447	34770	2757			14741														
STD		0400	0507	3495	2765	0005032	0346	14778														
OBS		0400	0507	34947	2765												14778					
OBS		0432	0542	35025	2767			14799														
OBS		0480	0489	34990	2770			14785														
STD		0500	0508	3503	2771	0004526	0394	14796														
OBS		0500	0508	35033	2771												14796					
STD		0600	0467	3502	2775	0004233	0438	14796														
OBS		0600	0467	35021	2775												14796					
STD		0700	0452	3503	2778	0004094	0480	14806														
OBS		0700	0452	35030	2778												14806					
STD		0800	0433	3503	2779	0003984	0520	14815														
OBS		0800	0433	35028	2779												14815					
STD		0900	0424	3503	2780	0003991	0560	14828														
OBS		0900	0424	35026	2780												14828					
STD		1000	0413	3503	2781	0003954	0600	14840														
OBS		1000	0413	35026	2781												14840					
STD		1100	0403	3502	2782	0003963	0639	14852														
OBS		1100	0403	35021	2782												14852					
STD		1200	0391	3502	2783	0003928	0679	14864														
OBS		1200	0391	35018	2783												14864					
STD		1300	0383	3502	2784	0003895	0718	14877														
OBS		1300	0383	35021	2784												14877					
STD		1400	0377	3502	2785	0003906	0757	14892														
OBS		1400	0377	35021	2785												14892					
STD		1500	0373	3503	2786	0003911	0796	14907														
OBS		1500	0373	35025	2786												14907					

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HAUSDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	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			
318076		CC	4049 N	05024 W	150	00	04	06	217	1969	11P	10375	4098	15	26	4	4		X1	0	6		0003			
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS										
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB														
						OT	SD	20	S22	159	12	12	6	31												
MESSAGE TIME HR 1/10	CST ND.	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 - 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							
217		STD	0000	0987	3470	2676		0012949		0000	14895															
		OBS	0000	0987	34700	2676					14895															
005		STD	0010	0990	3472	2677		0012871		0013	14898															
		OBS	0010	0990	34720	2677					14898															
		STD	0020	1280	3560	2692		0011523		0025	15013															
		OBS	0020	1280	35600	2692					15013															
		STD	0030	1335	3572	2690		0011733		0037	15034															
		OBS	0030	1335	35720	2690					15034															
		STD	0050	1350	3578	2691		0011645		0060	15043															
		OBS	0050	1350	35780	2691					15043															
		STD	0075	1383	3586	2690		0011825		0089	15059															
		OBS	0075	1383	35855	2690					15059															
		STD	0100	1391	3588	2690		0011913		0119	15066															
		OBS	0100	1391	35875	2690					15066															
		STD	0125	1394	3589	2690		0011973		0149	15071															
		OBS	0125	1394	35885	2690					15071															
		STD	0150	1392	3588	2690		0012034		0179	15075															
		OBS	0150	1392	35881	2690					15075															
		OBS	0190	1362	35820	2692					15071															
		STD	0200	1361	3582	2692		0011998		0239	15072															
		OBS	0200	1361	35820	2692					15072															
		OBS	0228	1356	35819	2693					15075															
		STD	0250	1337	3578	2694		0011987		0299	15072															
		OBS	0250	1337	35775	2694					15072															
		STD	0300	1270	3566	2698		0011647		0358	15056															
		OBS	0300	1270	35660	2698					15056															
		STD	0400	1005	3524	2715		0010136		0467	14974															
		OBS	0400	1005	35240	2715					14974															
		STD	0500	0735	3506	2744		0007377		0555	14887															
		OBS	0500	0735	35060	2744					14887															
		STD	0600	0617	3504	2758		0006052		0622	14857															
		OBS	0600	0617	35035	2758					14857															
		OBS	0640	0560	34993	2762					14840															
		OBS	0663	0453	34870	2765					14798															
	STD	0700	0503	3498	2768		0005095		0677	14827																
	OBS	0700	0503	34980	2768					14827																
	OBS	0715	0523	35023	2769					14838																
	OBS	0780	0470	34984	2772					14826																
	STD	0800	0508	3506	2774		0004678		0726	14846																
	OBS	0800	0508	35061	2774					14846																
	STD	0900	0473	3504	2776		0004491		0772	14848																
	OBS	0900	0473	35041	2776					14848																
	OBS	0950	0433	35000	2777					14839																
	STD	1000	0456	3506	2779		0004280		0816	14858																
	OBS	1000	0456	35055	2779					14858																
	STD	1100	0452	3507	2780		0004260		0859	14873																
	OBS	1100	0452	35065	2780					14873																
	STD	1200	0439	3506	2781		0004232		0901	14885																
	OBS	1200	0439	35060	2781					14885																
	STD	1300	0424	3505	2782		0004209		0943	14895																
	OBS	1300	0424	35050	2782					14895																
	STD	1400	0414	3505	2783		0004203		0985	14907																
	OBS	1400	0414	35046	2783					14907																
	STD	1500	0393	3503	2784		0004165		1027	14915																
	OBS	1500	0393	35026	2784					14915																

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076		CC	41205N	050205W		150	10	04	07	001	1969	IIP 10376	3565	15	23	5	2		X2	0	6	0004		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS												
		COLOR CODE	TRANS. 1m	DIR.	SPEED OF FORCE	DRY BULB	WET BULB																	
		DT	SD	20	S30	146	17	17	6	27														
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 - 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								
		STD	0000	1537	3620	2683	0012306	0000	15100															
001		OBS	0000	1537	36195	2683			15100															
		STD	0010	1537	3620	2683	0012338	0012	15102															
		OBS	0010	1537	36195	2683			15102															
		STD	0020	1537	3620	2683	0012369	0025	15104															
004		OBS	0020	1537	36195	2683			15104															
		STD	0030	1537	3620	2683	0012386	0037	15105															
		OBS	0030	1537	36197	2683			15105															
		STD	0050	1538	3620	2683	0012456	0062	15109															
		OBS	0050	1538	36199	2683			15109															
		OBS	0070	1539	36200	2683			15112															
		STD	0075	1539	3620	2683	0012549	0093	15113															
		OBS	0075	1539	36200	2683			15113															
		STD	0100	1540	3620	2682	0012649	0125	15118															
		OBS	0100	1540	36200	2682			15118															
		STD	0125	1538	3620	2683	0012685	0156	15121															
		OBS	0125	1538	36200	2683			15121															
		OBS	0130	1540	36200	2682			15123															
		STD	0150	1435	3594	2686	0012476	0188	15089															
		OBS	0150	1435	35941	2686			15089															
		STD	0200	1372	3582	2690	0012204	0249	15076															
		OBS	0200	1372	35822	2690			15076															
		STD	0250	1280	3566	2696	0011722	0309	15051															
		OBS	0250	1280	35658	2696			15051															
		STD	0300	1160	3546	2704	0011042	0366	15016															
		OBS	0300	1160	35459	2704			15016															
		STD	0400	0864	3515	2731	0008488	0464	14921															
		OBS	0400	0864	35150	2731			14921															
		OBS	0430	0780	35129	2743			14894															
		STD	0500	0665	3500	2749	0006816	0540	14859															
		OBS	0500	0665	35001	2749			14859															
		STD	0600	0504	3490	2761	0005590	0602	14809															
		OBS	0600	0504	34899	2761			14809															
		STD	0700	0405	3487	2770	0004726	0654	14784															
		OBS	0700	0405	34870	2770			14784															
		STD	0800	0387	3489	2773	0004492	0700	14794															
		OBS	0800	0387	34886	2773			14794															
		STD	0900	0396	3492	2775	0004422	0745	14815															
		OBS	0900	0396	34922	2775			14815															
		STD	1000	0414	3496	2776	0004432	0789	14839															
		OBS	1000	0414	34963	2776			14839															
		STD	1100	0433	3502	2779	0004333	0833	14865															
		OBS	1100	0433	35022	2779			14865															
		STD	1200	0428	3503	2780	0004302	0876	14880															
		OBS	1200	0428	35031	2780			14880															
		STD	1300	0414	3503	2781	0004262	0919	14890															
		OBS	1300	0414	35025	2781			14890															
		STD	1400	0388	3500	2782	0004209	0961	14896															
		OBS	1400	0388	34999	2782			14896															
		STD	1500	0391	3502	2783	0004219	1003	14914															
		OBS	1500	0391	35015	2783			14914															

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN 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
318076	CC	4150 N	05018 W	150	10	04	07	037	1969	IIP	10377	3671	15	22	5	6		X2	0	6	0005	
				WATER		WIND		AIR TEMP. °C														
				COLOR	TRANS.	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
				DT	SD	22	S23	102	160	160	7	29										
MESSAGE TIME HR 1/10	CASST 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 $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	Si O ₄ -Si $\mu g - ml/l$	pH	CHL- a					
		STD	0000	0413	3359	2668	0013746	0000	14655													
037		OBS	0000	0413	33591	2668			14655													
		STD	0010	0409	3359	2668	0013715	0014	14655													
		OBS	0010	0409	33591	2668			14655													
		STD	0020	0407	3359	2668	0013689	0027	14656													
005		OBS	0020	0407	33593	2668			14656													
		STD	0030	0389	3359	2670	0013584	0041	14650													
		OBS	0030	0389	33585	2670			14650													
		STD	0050	0325	3360	2677	0012896	0068	14626													
		OBS	0050	0325	33600	2677			14626													
		STD	0075	0302	3364	2682	0012393	0099	14621													
		OBS	0075	0302	33642	2682			14621													
		STD	0100	0357	3389	2697	0011038	0128	14652													
		OBS	0100	0357	33890	2697			14652													
		STD	0125	0180	3398	2719	0008923	0153	14580													
		OBS	0125	0180	33975	2719			14580													
		STD	0150	0208	3421	2736	0007353	0174	14600													
		OBS	0150	0208	34212	2736			14600													
		OBS	0170	0225	34300	2741			14612													
		OBS	0190	0364	34529	2747			14678													
		STD	0200	0360	3453	2747	0006336	0208	14678													
		OBS	0200	0360	34530	2747			14678													
		OBS	0221	0268	34460	2750			14641													
		STD	0250	0281	3456	2757	0005394	0237	14653													
		OBS	0250	0281	34561	2757			14653													
		STD	0300	0465	3489	2765	0004873	0263	14744													
		OBS	0300	0465	34887	2765			14744													
		OBS	0323	0485	34921	2765			14756													
		STD	0400	0445	3493	2770	0004435	0309	14752													
		OBS	0400	0445	34930	2770			14752													
		OBS	0459	0470	35025	2775			14774													
		STD	0500	0455	3501	2776	0004047	0352	14774													
		OBS	0500	0455	35012	2776			14774													
		STD	0600	0427	3500	2778	0003916	0392	14779													
		OBS	0600	0427	35000	2778			14779													
		STD	0700	0421	3501	2779	0003873	0431	14793													
		OBS	0700	0421	35010	2779			14793													
		STD	0800	0396	3498	2780	0003885	0469	14799													
		OBS	0800	0396	34982	2780			14799													
		STD	0900	0387	3498	2781	0003864	0508	14812													
		OBS	0900	0387	34983	2781			14812													
		STD	1000	0382	3499	2782	0003851	0547	14826													
		OBS	1000	0382	34989	2782			14826													
		STD	1100	0382	3500	2782	0003889	0585	14843													
		OBS	1100	0382	34996	2782			14843													
		STD	1200	0381	3500	2783	0003906	0624	14860													
		OBS	1200	0381	35004	2783			14860													
		STD	1300	0366	3499	2784	0003887	0663	14870													
		OBS	1300	0366	34993	2784			14870													
		STD	1400	0363	3500	2785	0003882	0702	14886													
		OBS	1400	0363	35000	2785			14886													
		STD	1500	0363	3501	2785	0003899	0741	14903													
		OBS	1500	0363	35009	2785			14903													

REFERENCE	SHIP CODE	LATITUDE	LONGITUDE	MARSDEH SQUARE	STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEATHER CODE	CLOUD CODES		NDDC STATION NUMBER
					10'	1"		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		TYPE	AMT	

318076	CC	4207 N	050207W	150	20	04	07	065	1969	IIP	10378	3481	10	22	4	6	X2	0	6	0006
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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 OF FORCE		DRY BULB	WET BULB			
DT	SD	21	S31	071	113	113	7	30	

MESSAGE TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	Si D ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	STATION
	065	STD	0000	0443	3368	2671	0013390	0000	14669								
		OBS	0000	0443	33678	2671			14669								
		STD	0010	0442	3368	2671	0013389	0013	14670								
		OBS	0010	0442	33678	2671			14670								
		STD	0020	0442	3368	2671	0013398	0027	14672								
	007	OBS	0020	0442	33678	2671			14672								
		STD	0030	0442	3368	2671	0013407	0040	14673								
		OBS	0030	0442	33678	2671			14673								
		STD	0050	0460	3376	2676	0012996	0067	14685								
		OBS	0050	0460	33760	2676			14685								
		OBS	0067	0563	33999	2683			14734								
		STD	0075	0510	3393	2684	0012286	0098	14712								
		OBS	0075	0510	33930	2684			14712								
		OBS	0079	0490	34000	2692			14706								
		OBS	0082	0540	34185	2700			14729								
		STD	0100	0285	3402	2714	0009410	0125	14629								
		OBS	0100	0285	34020	2714			14623								
		STD	0125	0315	3427	2731	0007807	0147	14643								
		OBS	0125	0315	34270	2731			14643								
		STD	0150	0356	3447	2743	0006744	0165	14667								
		OBS	0150	0356	34465	2743			14667								
		OBS	0170	0327	34479	2747			14659								
		OBS	0180	0374	34630	2754			14682								
		OBS	0190	0352	34587	2753			14674								
		STD	0200	0386	3467	2756	0005546	0196	14691								
		OBS	0200	0386	34670	2756			14691								
		OBS	0205	0347	34580	2753			14674								
		OBS	0232	0450	34818	2761			14725								
		OBS	0247	0411	34780	2762			14711								
		STD	0250	0443	3487	2766	0004700	0221	14726								
		OBS	0250	0443	34870	2766			14726								
		OBS	0280	0489	34961	2768			14751								
		STD	0300	0477	3496	2769	0004488	0244	14749								
		OBS	0300	0477	34957	2769			14749								
		STD	0400	0451	3497	2773	0004182	0288	14755								
		OBS	0400	0451	34973	2773			14755								
		OBS	0455	0470	35027	2775			14773								
		STD	0500	0450	3501	2776	0004019	0329	14772								
		OBS	0500	0450	35008	2776			14772								
		STD	0600	0425	3500	2778	0003893	0368	14778								
		OBS	0600	0425	35000	2778			14778								
		STD	0700	0377	3495	2779	0003827	0407	14774								
		OBS	0700	0377	34948	2779			14774								
		STD	0800	0365	3494	2780	0003839	0445	14785								
		OBS	0800	0365	34940	2780			14785								
		STD	0900	0377	3496	2780	0003895	0484	14807								
		OBS	0900	0377	34963	2780			14807								
		STD	1000	0380	3498	2781	0003879	0523	14825								
		OBS	1000	0380	34982	2781			14825								

REFERENCE CTRY CODE	ID. NO.	SNIP 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			DIR	HGT	PER	SEA	TYPE	AMT			
318076		CC	4229 N	05018 W	150	20	04	07 093	1969	IIP	10379	2481	15	22	5	3		X2	0	6		0007
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE											
					DT	SD	36	S18	088	07	07	7	32									
MESSAGE TIME HR 1/10	CARD 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	PD ₄ -P μg - σ _t /l	TOTAL-P μg - σ _t /l	NO ₂ -N μg - σ _t /l	NO ₃ -N μg - σ _t /l	SiO ₄ -Si μg - σ _t /l	pH	S C C					
093	STD		0000	0473	3374	2673	0013218	0000	14682													
	OBS		0000	0473	33742	2673			14682													
005	STD		0010	0468	3374	2674	0013176	0013	14682													
	OBS		0010	0468	33742	2674			14682													
	STD		0020	0463	3374	2674	0013148	0026	14681													
	OBS		0020	0463	33740	2674			14681													
	STD		0030	0461	3374	2674	0013137	0040	14682													
	OBS		0030	0461	33740	2674			14682													
	STD		0050	0305	3370	2686	0011989	0065	14619													
	OBS		0050	0305	33697	2686			14619													
	OBS		0068	0555	34330	2710			14735													
	STD		0075	0522	3440	2720	0008901	0091	14724													
	OBS		0075	0522	34400	2720			14724													
	OBS		0093	0483	34450	2728			14711													
	STD		0100	0533	3460	2734	0007561	0111	14735													
	OBS		0100	0533	34600	2734			14735													
	STD		0125	0535	3462	2735	0007466	0130	14740													
	OBS		0125	0535	34620	2735			14740													
	STD		0150	0603	3476	2738	0007275	0149	14773													
	OBS		0150	0603	34760	2738			14773													
	OBS		0186	0385	34593	2750			14687													
	STD		0200	0433	3472	2755	0005662	0181	14712													
	OBS		0200	0433	34720	2755			14712													
	OBS		0217	0567	34892	2753			14772													
	OBS		0221	0468	34830	2760			14731													
	STD		0250	0422	3480	2763	0004996	0208	14716													
	OBS		0250	0422	34800	2763			14716													
	OBS		0260	0399	34778	2763			14708													
	OBS		0269	0435	34855	2766			14726													
	OBS		0277	0386	34786	2765			14705													
	STD		0300	0415	3487	2769	0004448	0231	14723													
	OBS		0300	0415	34870	2769			14723													
	STD		0400	0428	3495	2774	0004117	0274	14745													
	OBS		0400	0428	34947	2774			14745													
	STD		0500	0403	3495	2776	0003946	0314	14752													
	OBS		0500	0403	34946	2776			14752													
	STD		0600	0383	3493	2777	0003967	0354	14759													
	OBS		0600	0383	34926	2777			14759													
	STD		0700	0368	3493	2779	0003853	0393	14770													
	OBS		0700	0368	34931	2779			14770													
	STD		0800	0367	3494	2779	0003891	0432	14786													
	OBS		0800	0367	34936	2779			14786													
	STD		0900	0364	3494	2780	0003929	0471	14801													
	OBS		0900	0364	34938	2780			14801													
	STD		1000	0362	3494	2780	0003983	0510	14817													
	OBS		1000	0362	34939	2780			14817													
	STD		1100	0362	3495	2781	0003994	0550	14834													
	OBS		1100	0362	34949	2781			14834													
	STD		1200	0363	3496	2781	0004009	0590	14851													
	OBS		1200	0363	34960	2781			14851													
	STD		1300	0383	3501	2783	0004012	0630	14877													
	OBS		1300	0383	35005	2783			14877													
	STD		1400	0377	3501	2784	0004001	0670	14892													
	OBS		1400	0377	35008	2784			14892													
	STD		1500	0365	3500	2784	0003991	0710	14903													
	OBS		1500	0365	35000	2784			14903													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	MARCOEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTN 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
318076	CC		4239 N	05020 W	150	20	04	07	120	1969	IIP	10380	1902	15	23	5	3		X5	0	6	0008	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. IM	DIR.	SPEED OF FORCE	METER (mbs)	DRY BULB	WET BULB											
						DT	SD	36	S10	135	023	023	6	28									
MESSNGR 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. 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							
		STD	0000	0072	3306	2652	0015202	0000	14499														
120		OBS	0000	0072	33055	2652			14499														
		STD	0010	0073	3306	2652	0015206	0015	14501														
		OBS	0010	0073	33055	2652			14501														
		STD	0020	0067	3308	2654	0015020	0030	14500														
006		OBS	0020	0067	33075	2654			14500														
		STD	0030	0061	3314	2660	0014492	0045	14500														
		OBS	0030	0061	33140	2660			14500														
		OBS	0042	0195	33520	2681			14567														
		STD	0050	0040	3355	2694	0011254	0071	14499														
		OBS	0050	0040	33550	2694			14499														
		STD	0075	0209	3392	2712	0009538	0097	14584														
		OBS	0075	0209	33920	2712			14584														
		STD	0100	0204	3402	2721	0008753	0120	14587														
		OBS	0100	0204	34020	2721			14587														
		OBS	0117	0155	34135	2733			14570														
		STD	0125	0165	3418	2736	0007262	0140	14577														
		OBS	0125	0165	34180	2736			14577														
		STD	0150	0200	3430	2743	0006626	0157	14598														
		OBS	0150	0200	34300	2743			14598														
		STD	0200	0425	3470	2754	0005726	0188	14708														
		OBS	0200	0425	34700	2754			14708														
		OBS	0223	0483	34820	2757			14737														
		STD	0250	0463	3484	2761	0005184	0215	14734														
		OBS	0250	0463	34835	2761			14734														
		STD	0300	0427	3485	2766	0004720	0240	14727														
		OBS	0300	0427	34851	2766			14727														
		OBS	0330	0387	34810	2767			14715														
		STD	0400	0432	3493	2772	0004303	0285	14747														
		OBS	0400	0432	34928	2772			14747														
		STD	0500	0407	3493	2774	0004132	0327	14753														
		OBS	0500	0407	34927	2774			14753														
		STD	0600	0387	3492	2776	0004071	0368	14761														
		OBS	0600	0387	34918	2776			14761														
		STD	0700	0383	3492	2776	0004103	0409	14776														
		OBS	0700	0383	34920	2776			14776														
		STD	0800	0380	3492	2777	0004151	0450	14791														
		OBS	0800	0380	34921	2777			14791														
		STD	0900	0377	3492	2777	0004191	0492	14807														
		OBS	0900	0377	34923	2777			14807														
		STD	1000	0375	3493	2777	0004240	0534	14823														
		OBS	1000	0375	34925	2777			14823														
		STD	1100	0373	3493	2778	0004274	0577	14839														
		OBS	1100	0373	34929	2778			14839														
		STD	1200	0371	3493	2778	0004328	0620	14854														
		OBS	1200	0371	34930	2778			14854														
		STD	1300	0370	3494	2779	0004341	0663	14871														
		OBS	1300	0370	34938	2779			14871														
		STD	1400	0369	3494	2779	0004398	0707	14887														
		OBS	1400	0369	34940	2779			14887														
		STD	1500	0370	3496	2780	0004385	0751	14905														
		OBS	1500	0370	34955	2780			14905														

REFERENCE		SHIP CODE	LATITUDE	LONGITUDE	DEPT	MARSOEN SQUARE		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	
CTRY CODE	IO. NO.		1/10	1/10	1/10	10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER		DIR.	HGT	PER	SEA		TYPE	AMT		
318076		CC	42509N	05020 W		150	20	04	07	162	1969	IIP	10381	0179	02	34	3	5		X2	0	6	0009
						WATER		WIND				AIR TEMP. °C											
						COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)		DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTNS		SPECIAL OBSERVATIONS			
						DT	SD	01	S10	146		020		020		6		12					
MESSAGE TIME OF HR 1/10	CARD 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 ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH	SCC		
		STD	0000	0100	3328	2669		0013646		0000		14515											
162		OBS	0000	0100	33280	2669						14515											
		OBS	0005	0093	33300	2671						14512											
		STD	0010	0100	3334	2673		0013190		0013		14517											
002		OBS	0010	0100	33340	2673						14517											
		OBS	0018	0115	33400	2677						14526											
		STD	0020	0105	3342	2680		0012611		0026		14522											
		OBS	0020	0105	33420	2680						14522											
		STD	0030	0058	3350	2689		0011733		0038		14504											
		OBS	0030	0058	33500	2689						14504											
		STD	0050	0080	3362	2697		0010943		0061		14518											
		OBS	0050	0080	33620	2697						14518											
		STD	0075	0078	3365	2700		0010711		0088		14522											
		OBS	0075	0078	33649	2700						14522											
		STD	0100	0093	3374	2706		0010111		0114		14534											
		OBS	0100	0093	33740	2706						14534											
		STD	0125	0115	3385	2713		0009425		0139		14550											
		OBS	0125	0115	33849	2713						14550											
		STD	0150	0128	3392	2718		0008977		0162		14561											
		OBS	0150	0128	33920	2718						14561											
		OBS	0160	0135	33950	2720						14566											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH 1/10	MARSOEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER										
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA		TYPE	AMT											
318076		CC	43004N	050226W	150	30	04	07	178	1969	IIP	10382	0082	01	20	3	3		X2	0	6		0010										
						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	01	S10	152	025	025	7	06																			
MESSAGE TIME OF HR 1/10	CARD 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 ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	SCC																
		STD	0000	0174	3340	2673	0013203	0000	14549																								
178		OBS	0000	0174	33400	2673			14549																								
		STD	0010	0173	3340	2673	0013198	0013	14550																								
		OBS	0010	0173	33400	2673			14550																								
		STD	0020	0173	3340	2673	0013201	0026	14552																								
002		OBS	0020	0173	33400	2673			14552																								
		STD	0030	0172	3340	2673	0013196	0040	14553																								
		OBS	0030	0172	33400	2673			14553																								
		STD	0050	0160	3346	2679	0012663	0065	14552																								
		OBS	0050	0160	33460	2679			14552																								
		OBS	0055	0162	33520	2684			14555																								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTN 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	

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	36	513	173	04	04	7	34	

MESSAGE TIME OF HR. 1/10	CAST NO.	CARD TYPE	DEPTN (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	S 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	Si O ₄ -Si μg - at/l	pH	DATE
		STD	0000	0448	3362	2666	0013892	0000	14670								
	010	OBS	0000	0448	33618	2666			14670								
		STD	0010	0448	3362	2666	0013894	0014	14672								
		OBS	0010	0448	33619	2666			14672								
		STD	0020	0448	3362	2666	0013873	0028	14673								
	004	OBS	0020	0448	33623	2666			14673								
		STD	0030	0432	3365	2670	0013554	0041	14669								
		OBS	0030	0432	33645	2670			14669								
		STD	0050	0462	3376	2676	0013017	0068	14686								
		OBS	0050	0462	33760	2676			14686								
		OBS	0069	0628	34390	2706			14765								
		OBS	0070	0585	34320	2706			14747								
		STD	0075	0600	3436	2707	0010119	0097	14755								
		OBS	0075	0600	34360	2707			14755								
		OBS	0079	0666	34500	2709			14784								
		OBS	0092	0508	34390	2720			14720								
		STD	0100	0615	3463	2726	0008324	0120	14768								
		OBS	0100	0615	34630	2726			14768								
		STD	0125	0490	3450	2731	0007851	0140	14720								
		OBS	0125	0490	34500	2731			14720								
		OBS	0130	0458	34409	2728			14706								
		OBS	0140	0533	34687	2741			14743								
		STD	0150	0492	3457	2737	0007378	0159	14726								
		OBS	0150	0492	34570	2737			14726								
		OBS	0194	0466	34700	2750			14724								
		STD	0200	0490	3473	2749	0006216	0193	14735								
		OBS	0200	0490	34730	2749			14735								
		OBS	0203	0512	34873	2758			14747								
		OBS	0212	0475	34820	2758			14732								
		OBS	0238	0531	34899	2758			14761								
		STD	0250	0515	3487	2758	0005497	0223	14756								
		OBS	0250	0515	34873	2758			14756								
		STD	0300	0560	3505	2766	0004785	0248	14785								
		OBS	0300	0560	35050	2766			14785								
		STD	0400	0520	3501	2768	0004721	0296	14784								
		OBS	0400	0520	35010	2768			14784								
		STD	0500	0495	3504	2774	0004293	0341	14791								
		OBS	0500	0495	35043	2774			14791								
		STD	0600	0453	3501	2776	0004154	0383	14790								
		OBS	0600	0453	35009	2776			14790								
		STD	0700	0437	3501	2777	0004085	0424	14800								
		OBS	0700	0437	35007	2777			14800								
		STD	0800	0412	3499	2779	0004022	0465	14806								
		OBS	0800	0412	34989	2779			14806								
		STD	0900	0402	3498	2779	0004058	0505	14818								
		OBS	0900	0402	34981	2779			14818								
		STD	1000	0399	3499	2780	0004041	0546	14834								
		OBS	1000	0399	34991	2780			14834								
		STD	1100	0391	3499	2781	0004043	0586	14847								
		OBS	1100	0391	34990	2781			14847								
		STD	1200	0375	3498	2782	0004009	0626	14857								
		OBS	1200	0375	34980	2782			14857								
		STD	1300	0364	3497	2782	0004017	0667	14869								
		OBS	1300	0364	34972	2782			14869								
		STD	1400	0360	3497	2782	0004064	0707	14884								
		OBS	1400	0360	34970	2782			14884								
		STD	1500	0359	3499	2784	0004002	0747	14901								
		OBS	1500	0359	34988	2784			14901								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT MOON	MARSCON SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NOCC STATION NUMBER
						10"	1"	MO	DAY	HR. 1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318076	CC	4234 N	04842 W	149	28	04	08	035	1969	IIP	10384	3032	15	20	3	3		X2	0	6		0012		
						WATER		WIND		BARO-METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	OIL	SPEED OR FORCE	METER (mbars)		DRY BULB	WET BULB											
						DT	SD	02	S09	152	06	06	6	26										

MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ CYN. 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 $\mu\text{g} \cdot \text{dl/l}$	SI O ₄ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S C
		STD	0000	0435	3360	2666	0013896	0000	14664								
035		OBS	0000	0435	33600	2666			14664								
		STD	0010	0435	3360	2666	0013897	0014	14666								
		OBS	0010	0435	33601	2666			14666								
		STD	0020	0436	3361	2666	0013886	0028	14668								
004		OBS	0020	0436	33605	2666			14668								
		STD	0030	0436	3361	2667	0013858	0042	14670								
		OBS	0030	0436	33610	2667			14670								
		STD	0050	0404	3367	2674	0013143	0069	14661								
		OBS	0050	0404	33665	2674			14661								
		STD	0075	0390	3382	2688	0011861	0100	14661								
		OBS	0075	0390	33820	2688			14661								
		OBS	0084	0300	33900	2703			14625								
		STD	0100	0325	3420	2724	0008445	0125	14642								
		OBS	0100	0325	34195	2724			14642								
		STD	0125	0317	3436	2738	0007163	0145	14645								
		OBS	0125	0317	34358	2738			14645								
		STD	0150	0335	3446	2744	0006581	0162	14658								
		OBS	0150	0335	34460	2744			14658								
		STD	0200	0488	3479	2754	0005760	0193	14735								
		OBS	0200	0488	34788	2754			14735								
		STD	0250	0381	3474	2762	0005015	0220	14698								
		OBS	0250	0381	34740	2762			14698								
		STD	0300	0492	3496	2767	0004646	0244	14756								
		OBS	0300	0492	34959	2767			14756								
		STD	0400	0483	3500	2772	0004352	0289	14769								
		OBS	0400	0483	35000	2772			14769								
		OBS	0413	0456	34960	2772			14759								
		STD	0500	0451	3499	2775	0004149	0331	14772								
		OBS	0500	0451	34992	2775			14772								
		STD	0600	0427	3498	2776	0004102	0373	14779								
		OBS	0600	0427	34975	2776			14779								
		STD	0700	0406	3497	2777	0004032	0413	14786								
		OBS	0700	0406	34965	2777			14786								
		STD	0800	0393	3496	2778	0004013	0454	14797								
		OBS	0800	0393	34960	2778			14797								
		STD	0900	0382	3495	2779	0004027	0494	14809								
		OBS	0900	0382	34953	2779			14809								
		STD	1000	0385	3497	2780	0004012	0534	14827								
		OBS	1000	0385	34972	2780			14827								
		STD	1100	0375	3497	2781	0003995	0574	14840								
		OBS	1100	0375	34970	2781			14840								
		STD	1200	0388	3500	2782	0004023	0614	14863								
		OBS	1200	0388	35000	2782			14863								
		STD	1300	0377	3500	2783	0003996	0654	14875								
		OBS	1300	0377	34997	2783			14875								
		STD	1400	0377	3501	2784	0003994	0694	14892								
		OBS	1400	0377	35009	2784			14892								
		STD	1500	0362	3499	2784	0004004	0734	14902								
		OBS	1500	0362	34993	2784			14902								

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 SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOGC STATION NUMBER		
CIR CODE	ID NO.					10*	1*	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT	
318076		CC	4220 N	048282W	149	28	04	08	060	1969	11P	10385	3323	15	33	3	3		X6	0	6	0013		
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE												
						DT	SO	04	S12	132	07	07	6	31										
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ σ 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	Si O ₄ -Si μg - at/l	pH								
		STD	0000	0414	3344	2655	0014893	0000	14654															
066		OBS	0000	0414	33440	2655			14654															
		STD	0010	0409	3344	2656	0014852	0015	14653															
		OBS	0010	0409	33440	2656			14653															
		STD	0020	0403	3344	2657	0014802	0030	14652															
005		OBS	0020	0403	33440	2657			14652															
		STD	0030	0399	3344	2657	0014771	0044	14652															
		OBS	0030	0399	33440	2657			14652															
		STD	0050	0334	3360	2676	0012976	0072	14630															
		OBS	0050	0334	33600	2676			14630															
		OBS	0055	0313	33640	2681			14622															
		OBS	0068	0355	33775	2688			14644															
		STD	0075	0351	3386	2695	0011189	0102	14645															
		OBS	0075	0351	33860	2695			14645															
		OBS	0089	0367	33996	2704			14656															
		OBS	0096	0248	33974	2713			14605															
		STD	0100	0304	3407	2716	0009199	0128	14632															
		OBS	0100	0304	34070	2716			14632															
		OBS	0108	0202	33971	2717			14587															
		STD	0125	0389	3427	2724	0008496	0150	14675															
		OBS	0125	0389	34272	2724			14675															
		OBS	0140	0285	34232	2731			14632															
		STD	0150	0350	3439	2737	0007287	0170	14664															
		OBS	0150	0350	34385	2737			14664															
		STD	0200	0425	3460	2746	0006468	0204	14707															
		OBS	0200	0425	34601	2746			14707															
		STD	0250	0428	3470	2754	0005824	0235	14717															
		OBS	0250	0428	34698	2754			14717															
		OBS	0265	0407	34725	2758			14711															
		STD	0300	0478	3485	2760	0005297	0263	14748															
		OBS	0300	0478	34850	2760			14748															
		STD	0400	0440	3490	2769	0004602	0312	14750															
		OBS	0400	0440	34900	2769			14750															
		STD	0500	0453	3494	2770	0004567	0358	14772															
		OBS	0500	0453	34939	2770			14772															
		STD	0600	0433	3497	2775	0004187	0402	14781															
		OBS	0600	0433	34973	2775			14781															
		STD	0700	0422	3497	2776	0004159	0444	14793															
		OBS	0700	0422	34973	2776			14793															
		STD	0800	0390	3494	2777	0004141	0485	14796															
		OBS	0800	0390	34938	2777			14796															
		STD	0900	0385	3494	2778	0004159	0527	14810															
		OBS	0900	0385	34940	2778			14810															
		STD	1000	0383	3496	2779	0004114	0568	14826															
		OBS	1000	0383	34955	2779			14826															
		STD	1100	0382	3497	2780	0004117	0609	14843															
		OBS	1100	0382	34965	2780			14843															
		STD	1200	0373	3496	2781	0004117	0650	14856															
		OBS	1200	0373	34962	2781			14856															
		STD	1300	0380	3498	2781	0004158	0692	14876															
		OBS	1300	0380	34980	2781			14876															
		STD	1400	0376	3499	2782	0004121	0733	14891															
		OBS	1400	0376	34990	2782			14891															
		STD	1500	0363	3498	2783	0004112	0774	14902															
		OBS	1500	0363	34980	2783			14902															

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH IN METERS	MARS 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		
						10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318076	CC		4156 N	04800 W		149	18	04	08	101	1969	11P	10386	3685	15	01	2	3		X5	0	6	0014	
						WATER		WIND		AIR TEMP. °C														
						COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	BARO- METER (mbs)	DRY BULB		WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						DT	SD	01	S18	108	07	07	5	28										
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		Δ D 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 C						
101	STD	0000	0598	3347	2637	0016653		0000	14730															
	OBS	0000	0598	33470	2637				14730															
004	STD	0010	0593	3352	2641	0016232		0016	14730															
	OBS	0010	0593	33520	2641				14730															
	STD	0020	0787	3420	2669	0013681		0031	14817															
	OBS	0020	0787	34200	2669				14817															
	STD	0030	1252	3544	2685	0012195		0044	15003															
	OBS	0030	1252	35440	2685				15003															
	STD	0050	1270	3549	2685	0012221		0069	15013															
	OBS	0050	1270	35490	2685				15013															
	OBS	0067	1310	35584	2684				15030															
	STD	0075	1297	3554	2683	0012439		0100	15027															
	OBS	0075	1297	35540	2683				15027															
	STD	0100	1220	3539	2687	0012148		0130	15003															
	OBS	0100	1220	35390	2687				15003															
	STD	0125	1255	3550	2689	0012064		0161	15020															
	OBS	0125	1255	35500	2689				15020															
	STD	0150	1243	3549	2690	0012013		0191	15020															
	OBS	0150	1243	35485	2690				15020															
	STD	0200	1160	3536	2696	0011519		0250	14998															
	OBS	0200	1160	35360	2696				14998															
	STD	0250	1062	3529	2709	0010427		0304	14971															
OBS	0250	1062	35288	2709				14971																
STD	0300	0975	3526	2722	0009267		0354	14947																
OBS	0300	0975	35260	2722				14947																
STD	0400	0680	3490	2739	0007617		0438	14847																
OBS	0400	0680	34900	2739				14847																
STD	0500	0500	3484	2757	0005862		0505	14790																
OBS	0500	0500	34840	2757				14790																
OBS	0523	0520	34890	2759				14803																
STD	0600	0467	3490	2765	0005168		0561	14794																
OBS	0600	0467	34895	2765				14794																
OBS	0650	0493	34975	2768				14814																
STD	0700	0463	3495	2770	0004858		0611	14810																
OBS	0700	0463	34945	2770				14810																
OBS	0724	0453	34942	2770				14809																
STD	0800	0470	3500	2773	0004631		0658	14830																
OBS	0800	0470	35002	2773				14830																
STD	0900	0443	3499	2776	0004476		0704	14835																
OBS	0900	0443	34992	2776				14835																
STD	1000	0434	3500	2777	0004407		0748	14848																
OBS	1000	0434	35000	2777				14848																
STD	1100	0420	3500	2779	0004330		0792	14859																
OBS	1100	0420	35000	2779				14859																
STD	1200	0411	3500	2780	0004320		0835	14872																
OBS	1200	0411	34999	2780				14872																
STD	1300	0401	3499	2780	0004359		0878	14885																
OBS	1300	0401	34989	2780				14885																
STD	1400	0396	3500	2781	0004312		0922	14899																
OBS	1400	0396	34999	2781				14899																
STD	1500	0382	3498	2781	0004328		0965	14910																
OBS	1500	0382	34984	2781				14910																

REFERENCE CITY CODE	SHIP NO.	LATITUDE * 1/10	LONGITUDE * 1/10	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	
				10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
318076	CC	4132 N	04734 W	149	17	04	08	140	1969	IIP	10387	4080	15	01	2	2		X2	0	6		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				
				DT	SD	33	S12	105	14	14	6	30										
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20P	Σ Δ D DYU, 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						
140	STD	0000	1519	3615	2683	0012288	0000	15094														
	OBS	0000	1519	36145	2683			15094														
005	STD	0010	1519	3615	2683	0012319	0012	15096														
	OBS	0010	1519	36145	2683			15096														
	STD	0020	1518	3614	2683	0012337	0025	15097														
	OBS	0020	1518	36144	2683			15097														
	STD	0030	1518	3615	2683	0012360	0037	15099														
	OBS	0030	1518	36145	2683			15099														
	STD	0050	1517	3615	2683	0012402	0062	15102														
	OBS	0050	1517	36145	2683			15102														
	STD	0075	1520	3616	2683	0012471	0093	15107														
	OBS	0075	1520	36155	2683			15107														
	STD	0100	1517	3615	2684	0012506	0124	15110														
	OBS	0100	1517	36152	2684			15110														
	STD	0125	1519	3616	2684	0012605	0155	15115														
	OBS	0125	1519	36155	2684			15115														
	STD	0150	1516	3615	2684	0012676	0187	15118														
	OBS	0150	1516	36147	2684			15118														
	STD	0200	1518	3616	2684	0012794	0251	15127														
	OBS	0200	1518	36158	2684			15127														
	STD	0250	1515	3615	2684	0012942	0315	15134														
	OBS	0250	1515	36150	2684			15134														
STD	0300	1492	3610	2685	0012965	0320	15134															
OBS	0300	1492	36100	2685			15134															
STD	0400	1338	3576	2692	0012533	0507	15096															
OBS	0400	1338	35760	2692			15096															
STD	0500	1124	3547	2712	0010788	0624	15036															
OBS	0500	1124	35470	2712			15036															
STD	0600	0892	3520	2731	0008965	0723	14965															
OBS	0600	0892	35199	2731			14965															
STD	0700	0702	3509	2751	0006999	0803	14908															
OBS	0700	0702	35090	2751			14908															
STD	0710	0573	34965	2758			14867															
OBS	0710	0573	34965	2758			14867															
STD	0800	0640	3514	2763	0005887	0867	14901															
OBS	0800	0640	35140	2763			14901															
STD	0832	0486	34905	2764			14840															
OBS	0832	0486	34905	2764			14840															
STD	0884	0582P	3512P	2770P																		
OBS	0884	0582P	3512P	2770P																		
STD	0900	0568	3508	2767	0005497	0924	14887															
OBS	0900	0568	35075	2767			14887															
STD	0960	0489	35010	2772			14864															
OBS	0960	0489	35010	2772			14864															
STD	0981	0526	35086	2773			14884															
OBS	0981	0526	35086	2773			14884															
STD	1000	0518	3509	2774	0004871	0976	14884															
OBS	1000	0518	35085	2774			14884															
STD	1100	0473	3504	2776	0004733	1024	14882															
OBS	1100	0473	35038	2776			14882															
STD	1118	0505	35107	2778			14899															
OBS	1118	0505	35107	2778			14899															
STD	1200	0443	3502	2778	0004563	1070	14886															
OBS	1200	0443	35022	2778			14886															
STD	1300	0413	3500	2779	0004469	1115	14890															
OBS	1300	0413	34995	2779			14890															
STD	1400	0406	3500	2780	0004435	1160	14904															
OBS	1400	0406	35000	2780			14904															
STD	1500	0402	3501	2781	0004438	1204	14919															
OBS	1500	0402	35005	2781			14919															

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH METERS	MARS DEN SQUARE		STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER	
					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
					10°	1°	MO	DAY	HR./10													
318076	CC	4109 N	04711 W	149	17	04	08	180	1969	IIP	10388	3652	15	18	4	3		X2	0	6	0016	
					WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTNS	SPECIAL OBSERVATIONS								
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
		DT	SD	32	S15	119	15	14	7	29												
MESSAGE TIME OF 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	D ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	ND ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	S C				
175		OBS	0005	1568	36200	2676				15111												
		STD	0010	1570	3620	2676			0013019	15112												
003		OBS	0010	1570	36199	2676				15112												
		STD	0020	1577	3628	2680			0012612	15117												
		OBS	0020	1577	36280	2680				15117												
		STD	0030	1576	3628	2680			0012630	15118												
		OBS	0030	1576	36279	2680				15118												
		STD	0050	1575	3628	2680			0012702	15121												
		OBS	0050	1575	36275	2680				15121												
		STD	0075	1562	3625	2681			0012681	15121												
		OBS	0075	1562	36250	2681				15121												
		STD	0100	1545	3621	2682			0012684	15119												
		OBS	0100	1545	36210	2682				15119												
		STD	0125	1525	3618	2685			0012522	15117												
		OBS	0125	1525	36184	2685				15117												
		STD	0150	1516	3617	2686			0012509	15118												
		OBS	0150	1516	36170	2686				15118												
		STD	0200	1503	3614	2686			0012604	15122												
		OBS	0200	1503	36140	2686				15122												
		STD	0250	1480	3608	2687			0012704	15122												
		OBS	0250	1480	36080	2687				15122												
		OBS	0260	1462	36037	2687				15117												
		OBS	0275	1476	36080	2687				15125												
		STD	0300	1466	3606	2688			0012703	15125												
		OBS	0300	1466	36060	2688				15125												
		STD	0400	1293	3569	2696			0012146	15081												
		OBS	0400	1293	35690	2696				15081												
		STD	0500	1072	3538	2714			0010504	15017												
		OBS	0500	1072	35380	2714				15017												
		STD	0600	0845	3520	2738			0008201	14948												
		OBS	0600	0845	35200	2738				14948												
		STD	0700	0693	3501	2746			0007441	14903												
		OBS	0700	0693	35012	2746				14903												
		OBS	0795	0659	35210	2766				14908												
		STD	0800	0658	3520	2765			0005704	14908												
		OBS	0800	0658	35200	2765				14908												
		STD	0900	0480	3500	2772			0004920	14851												
		OBS	0900	0480	34995	2772				14851												
		OBS	0930	0487	35020	2773				14859												
		STD	1000	0452	3499	2774			0004745	14855												
		OBS	1000	0452	34985	2774				14855												
		STD	1100	0438	3500	2777			0004559	14867												
		OBS	1100	0438	35000	2777				14867												
		STD	1200	0444	3503	2778			0004517	14886												
		OBS	1200	0444	35030	2778				14886												
		STD	1300	0416	3500	2779			0004464	14891												
		OBS	1300	0416	35001	2779				14891												
		OBS	1345	0395	34970	2779				14889												
		STD	1400	0414	3501	2780			0004445	14907												
		OBS	1400	0414	35013	2780				14907												
		STD	1500	0412	3503	2781			0004424	14923												
		OBS	1500	0412	35025	2781				14923												

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARSSEN SQUARE 10" 1"	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
						MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076		CC	41353N	046458W	149	16	04	08	220	1969	11P	10389	4349	15	19	3	3		X1	0	6	0017
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C DRY BULB WET BULB		VIS. CODE NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE													
						DT	SD	32	S15	139	13	13	7	24								

MESSENGER TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ σ 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	CO ₂
		STD	0000	1655	3643	2674	0013176	0000	15139								
216		OBS	0000	1655	36430	2674			15139								
		STD	0010	1656	3643	2673	0013232	0013	15141								
		OBS	0010	1656	36430	2673			15141								
		STD	0020	1656	3643	2673	0013265	0026	15143								
003		OBS	0020	1656	36430	2673			15143								
		STD	0030	1655	3643	2674	0013276	0040	15144								
		OBS	0030	1655	36430	2674			15144								
		STD	0050	1652	3643	2674	0013297	0066	15147								
		OBS	0050	1652	36427	2674			15147								
		STD	0075	1650	3643	2674	0013342	0100	15150								
		OBS	0075	1650	36426	2674			15150								
		STD	0100	1603	3628	2674	0013433	0133	15138								
		OBS	0100	1603	36281	2674			15138								
		STD	0125	1564	3622	2679	0013102	0166	15129								
		OBS	0125	1564	36220	2679			15129								
		STD	0150	1542	3621	2683	0012762	0199	15127								
		OBS	0150	1542	36212	2683			15127								
		STD	0200	1525	3617	2684	0012835	0263	15129								
		OBS	0200	1525	36173	2684			15129								
		STD	0250	1510	3614	2685	0012892	0327	15132								
		OBS	0250	1510	36142	2685			15132								
		STD	0300	1496	3612	2686	0012912	0391	15136								
		OBS	0300	1496	36119	2686			15136								
		STD	0400	1462	3602	2686	0013221	0522	15140								
		OBS	0400	1462	36018	2686			15140								
		STD	0500	1264	3561	2696	0012424	0650	15086								
		OBS	0500	1264	35610	2696			15086								
		STD	0600	1077	3540	2715	0010685	0766	15035								
		OBS	0600	1077	35399	2715			15035								
		STD	0700	0800	3500	2729	0009142	0865	14944								
		OBS	0700	0800	35000	2729			14944								
		STD	0800	0636	3495	2749	0007228	0947	14896								
		OBS	0800	0636	34950	2749			14896								
		STD	0900	0619	3510	2763	0006026	1013	14908								
		OBS	0900	0619	35100	2763			14908								
		STD	1000	0576	3514	2771	0005276	1070	14908								
		OBS	1000	0576	35138	2771			14908								
		STD	1100	0511	3508	2775	0004917	1121	14898								
		OBS	1100	0511	35082	2775			14898								
		STD	1200	0471	3506	2777	0004683	1169	14898								
		OBS	1200	0471	35056	2777			14898								
		STD	1300	0457	3506	2779	0004609	1215	14909								
		OBS	1300	0457	35055	2779			14909								
		STD	1400	0437	3504	2780	0004538	1261	14917								
		OBS	1400	0437	35042	2780			14917								
		STD	1500	0417	3503	2781	0004491	1306	14925								
		OBS	1500	0417	35025	2781			14925								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH FATH	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		
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	NGT	PER		SEA	TYPE		AMT	
318076		CC	4205 N	04622 W		149	26	04	09	030	1969	IIP	10390	4493	15	19	3	2		X1	0	6	0018	
						WATER		WIND				AIR TEMP. °C												
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)		DRY BULB		WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						DT	SD	36	S10	159		09	09	7	31									
MESSAGE 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 $\mu g - \text{at/l}$	TOTAL-P $\mu g - \text{at/l}$	NO ₂ -N $\mu g - \text{at/l}$	NO ₃ -N $\mu g - \text{at/l}$	SiO ₄ -Si $\mu g - \text{at/l}$	pH	1 C					
		STD	0000	1504	3612	2684		0012153		0000	15089													
030		OBS	0000	1504	36120	2684		0012184		0012	15089													
		STD	0010	1504	3612	2684		0012187		0024	15091													
		OBS	0010	1504	36120	2684		0012187		0024	15091													
		STD	0020	1503	3612	2685		0012268		0037	15092													
003		OBS	0020	1503	36121	2685		0012268		0037	15092													
		STD	0030	1505	3612	2684		0012322		0061	15094													
		OBS	0030	1505	36120	2684		0012322		0061	15094													
		STD	0050	1505	3612	2684		0012399		0092	15097													
		OBS	0050	1505	36121	2684		0012399		0092	15097													
		STD	0075	1506	3612	2684		0012447		0123	15102													
		OBS	0075	1506	36124	2684		0012447		0123	15102													
		STD	0100	1507	3613	2685		0012561		0154	15106													
		OBS	0100	1507	36131	2685		0012561		0154	15106													
		STD	0125	1505	3612	2684		0012619		0186	15110													
		OBS	0125	1505	36120	2684		0012619		0186	15110													
		STD	0150	1490	3608	2684		0012555		0249	15109													
		OBS	0150	1490	36079	2684		0012555		0249	15109													
		STD	0200	1452	3600	2686		0009155		0711	15104													
		OBS	0200	1452	35999	2686		0009155		0711	15104													
		STD	0250	1400	3586	2687		0007574		0794	15093													
		OBS	0250	1400	35862	2687		0007574		0794	15093													
		STD	0300	1372	3581	2689		0005901		0862	15093													
		OBS	0300	1372	35813	2689		0005901		0862	15093													
		STD	0322	1374	35848	2691		0005437		0918	15092													
		OBS	0322	1374	35848	2691		0005437		0918	15092													
		STD	0400	1277	3566	2697		0005164		0971	15075													
		OBS	0400	1277	35660	2697		0005164		0971	15075													
		STD	0500	1106	3544	2713		0004882		1021	15030													
		OBS	0500	1106	35440	2713		0004882		1021	15030													
		STD	0600	0845	3507	2728		0004613		1069	14946													
		OBS	0600	0845	35070	2728		0004613		1069	14946													
		STD	0612	0812	35080	2734		0004538		1115	14935													
		OBS	0612	0812	35080	2734		0004538		1115	14935													
		STD	0622	0842	35148	2735		0004472		1160	14949													
		OBS	0622	0842	35148	2735		0004472		1160	14949													
		STD	0660	0743	35030	2740		0004441		1204	14916													
		OBS	0660	0743	35030	2740		0004441		1204	14916													
		STD	0692	0815	35245	2746		0004472		1160	14952													
		OBS	0692	0815	35245	2746		0004472		1160	14952													
		STD	0700	0765	3514	2746		0004472		1160	14933													
		OBS	0700	0765	35140	2746		0004472		1160	14933													
		STD	0770	0543	34885	2755		0004472		1160	14853													
		OBS	0770	0543	34885	2755		0004472		1160	14853													
		STD	0800	0641	3514	2763		0004472		1160	14901													
		OBS	0800	0641	35140	2763		0004472		1160	14901													
		STD	0829	0671	35190	2763		0004472		1160	14918													
		OBS	0829	0671	35190	2763		0004472		1160	14918													
		STD	0900	0577	3510	2768		0004472		1160	14891													
		OBS	0900	0577	35100	2768		0004472		1160	14891													
		STD	1000	0569	3514	2772		0004472		1160	14905													
		OBS	1000	0569	35140	2772		0004472		1160	14905													
		STD	1100	0503	3507	2775		0004472		1160	14894													
		OBS	1100	0503	35072	2775		0004472		1160	14894													
		STD	1200	0468	3506	2778		0004472		1160	14897													
		OBS	1200	0468	35060	2778		0004472		1160	14897													
		STD	1300	0444	3504	2779		0004472		1160	14903													
		OBS	1300	0444	3504	2779		0004472		1160	14903													
		STD	1400	0431	3504	2781		0004472		1160	14914													
		OBS	1400	0431	35040	2781		0004472		1160	14914													
		STD	1500	0422	3504	2782		0004472		1160	14928													
		OBS	1500	0422	35041	2782		0004472		1160	14928													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	TIME ZONE	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		NOCC STATION NUMBER
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076		CC	4231 N	04601 W		149	26	04	09	062	1969	IIP	10391	4759	15	19	3	3		X1	0	6	0019
						WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR	TRANS.	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
						OT	SD	18	506	149	09	09	7	26									

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. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PD ₄ -P $\mu g - dl/l$	TOTAL-P $\mu g - dl/l$	NO ₃ -N $\mu g - dl/l$	NO ₂ -N $\mu g - dl/l$	SiO ₄ -Si $\mu g - dl/l$	pH	ST CODE
		STO	0000	1493	3614	2688	0011812	0000	15086								
	062	OBS	0000	1493	36135	2688			15086								
		STO	0010	1495	3614	2687	0011885	0012	15088								
		OBS	0010	1495	36135	2687			15088								
		STO	0020	1495	3614	2687	0011916	0024	15090								
	004	OBS	0020	1495	36135	2687			15090								
		STO	0030	1495	3614	2687	0011947	0036	15091								
		OBS	0030	1495	36135	2687			15091								
		STO	0050	1487	3611	2687	0012023	0060	15092								
		OBS	0050	1487	36110	2687			15092								
		STO	0075	1490	3613	2688	0012025	0090	15097								
		OBS	0075	1490	36129	2688			15097								
		STO	0100	1477	3609	2688	0012113	0120	15096								
		OBS	0100	1477	36090	2688			15096								
		STO	0125	1468	3607	2689	0012139	0150	15097								
		OBS	0125	1468	36071	2689			15097								
		STO	0150	1454	3602	2688	0012294	0181	15096								
		OBS	0150	1454	36020	2688			15096								
		STO	0200	1392	3587	2689	0012259	0242	15083								
		OBS	0200	1392	35870	2689			15083								
		OBS	0212	1445	36022	2690			15104								
		STO	0250	1452	3605	2690	0012347	0304	15112								
		OBS	0250	1452	36048	2690			15112								
		STO	0300	1383	3587	2691	0012348	0365	15096								
		OBS	0300	1383	35872	2691			15096								
		OBS	0342	1331	35805	2697			15085								
		STO	0400	1275	3574	2704	0011413	0484	15075								
		OBS	0400	1320P	35742	2694P											
		STO	0500	1130	3544	2708	0011088	0597	15038								
		OBS	0500	1130	35444	2708			15038								
		STO	0600	0925	3521	2726	0009414	0699	14978								
		OBS	0600	0925	35212	2726			14978								
		STO	0700	0771	3512	2743	0007835	0785	14935								
		OBS	0700	0771	35117	2743			14935								
		STO	0800	0670	3514	2759	0006297	0856	14912								
		OBS	0800	0670	35143	2759			14912								
		STO	0900	0600	3509	2764	0005831	0917	14901								
		OBS	0900	0600	35090	2764			14901								
		STO	1000	0535	3507	2771	0005218	0972	14891								
		OBS	1000	0535	35069	2771			14891								
		STO	1100	0500	3505	2774	0005011	1023	14893								
		OBS	1100	0500	35049	2774			14893								
		STO	1200	0455	3503	2777	0004669	1072	14891								
		OBS	1200	0455	35029	2777			14891								
		STO	1300	0439	3503	2779	0004589	1118	14901								
		OBS	1300	0439	35025	2779			14901								
		STO	1400	0416	3501	2780	0004501	1163	14908								
		OBS	1400	0416	35009	2780			14908								
		STO	1500	0412	3502	2781	0004461	1208	14923								
		OBS	1500	0412	35020	2781			14923								

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	
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318076		CC	42467N	046350W		149	26	04	09	096	1969	IIP	10392	4195	15	34	3	3		X1	0	6	0020
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
		CDLDR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	DRY BULB		WET BULB															
		OT	SD	14	512	139	09	08	7	27													
MESSAGE TIME HR 1/10	CAS 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	PD ₂ -P $\mu g - ol/l$	TOTAL-P $\mu g - ol/l$	NO ₂ -N $\mu g - ol/l$	NO ₃ -N $\mu g - ol/l$	SiO ₄ -Si $\mu g - ol/l$	pH	3 C					
096		STD	0000	1538	3620	2683	0012291		0000	15101													
		OBS	0000	1538	36200	2683				15101													
004		STD	0010	1540	3620	2683	0012343		0012	15103													
		OBS	0010	1540	36203	2683				15103													
		STD	0020	1540	3620	2683	0012382		0025	15105													
		OBS	0020	1540	36202	2683				15105													
		STD	0030	1542	3620	2682	0012450		0037	15107													
		OBS	0030	1542	36203	2682				15107													
		STD	0050	1540	3620	2683	0012484		0062	15109													
		OBS	0050	1540	36201	2683				15109													
		STD	0075	1538	3620	2683	0012520		0093	15113													
		OBS	0075	1538	36201	2683				15113													
		STD	0100	1532	3619	2683	0012550		0125	15115													
		OBS	0100	1532	36190	2683				15115													
		STD	0125	1517	3616	2684	0012562		0156	15114													
		OBS	0125	1517	36155	2684				15114													
		STD	0150	1507	3614	2685	0012543		0187	15115													
		OBS	0150	1507	36139	2685				15115													
		STD	0200	1497	3612	2686	0012622		0250	15120													
		OBS	0200	1497	36120	2686				15120													
		STD	0250	1497	3612	2686	0012774		0314	15128													
		OBS	0250	1497	36120	2686				15128													
	STD	0300	1494	3611	2686	0012913		0378	15135														
	OBS	0300	1494	36113	2686				15135														
	STD	0330	1475	36078	2688				15133														
	OBS	0350	1419	35938	2689				15117														
	STD	0400	1290	3566	2694	0012342		0504	15079														
	OBS	0400	1290	35655	2694				15079														
	STD	0500	1074	3537	2713	0010613		0619	15017														
	OBS	0500	1074	35370	2713				15017														
	STD	0600	0825	3514	2737	0008318		0714	14939														
	OBS	0600	0825	35141	2737				14939														
	OBS	0610	0855	35230	2739				14953														
	STD	0700	0710	3508	2749	0007190		0791	14911														
	OBS	0700	0710	35080	2749				14911														
	STD	0800	0586	3506	2763	0005759		0856	14878														
	OBS	0800	0586	35055	2763				14878														
	STD	0900	0539	3507	2770	0005163		0911	14876														
	OBS	0900	0539	35067	2770				14876														
	STD	1000	0492	3503	2773	0004916		0961	14873														
	OBS	1000	0492	35032	2773				14873														
	STD	1100	0464	3502	2776	0004733		1009	14878														
	OBS	1100	0464	35022	2776				14878														
	STD	1200	0437	3501	2777	0004588		1056	14883														
	OBS	1200	0437	35008	2777				14883														
	STD	1300	0424	3501	2779	0004517		1101	14894														
	OBS	1300	0424	35008	2779				14894														
	STD	1400	0404	3499	2780	0004468		1146	14903														
	OBS	1400	0404	34992	2780				14903														
	STD	1500	0392	3499	2780	0004452		1191	14914														
	OBS	1500	0392	34985	2780				14914														

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

318076 CC 43021N 047082W 149 37 04 09 132 1969 11P 10393 3733 15 01 4 3 X1 0 6 0021

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M1	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			
DT	SD	16	S12	129	11	11	7	38	

DT SD 16 S12 129 11 11 7 38

MESSAGE TIME HR 1/10	CAST NO.	CARO 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 $\mu\text{g} \cdot \text{at/l}$	TOTAL-P $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	NO ₃ -N $\mu\text{g} \cdot \text{at/l}$	Si O ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	CO ₂
		STD	0000	1523	3616	2683	0012263	0000	15095								
132		OBS	0000	1523	36160	2683			15095								
		STD	0010	1514	3613	2683	0012323	0012	15094								
		OBS	0010	1514	36130	2683			15094								
		STD	0020	1511	3613	2684	0012290	0025	15095								
003		OBS	0020	1511	36130	2684			15095								
		STD	0030	1512	3613	2683	0012343	0037	15097								
		OBS	0030	1512	36130	2683			15097								
		STD	0050	1503	3610	2683	0012433	0062	15097								
		OBS	0050	1503	36100	2683			15097								
		STD	0075	1502	3611	2684	0012453	0093	15100								
		OBS	0075	1502	36105	2684			15100								
		STD	0100	1495	3608	2683	0012564	0124	15102								
		OBS	0100	1495	36080	2683			15102								
		STD	0125	1455	3596	2683	0012677	0156	15092								
		OBS	0125	1455	35960	2683			15092								
		STD	0150	1345	3570	2686	0012414	0187	15057								
		OBS	0150	1345	35700	2686			15057								
		OBS	0160	1336	35702	2688			15056								
		OBS	0170	1358	35789	2690			15066								
		STD	0200	1255	3560	2697	0011531	0247	15034								
		OBS	0200	1255	35600	2697			15034								
		OBS	0230	1090	35300	2705			14978								
		STD	0250	1098	3536	2708	0010529	0302	14985								
		OBS	0250	1098	35360	2708			14985								
		OBS	0265	1122	35447	2710			14997								
		STD	0300	1020	3531	2717	0009693	0353	14964								
		OBS	0300	1020	35305	2717			14964								
		OBS	0373	0724	34910	2733			14860								
		OBS	0387	0823	35180	2740			14904								
		STD	0400	0726	3500	2740	0007517	0439	14866								
		OBS	0400	0726	35001	2740			14866								
		OBS	0418	0756	35083	2742			14882								
		OBS	0480	0559	34885	2753			14812								
		OBS	0495	0607	34940	2752			14834								
		STD	0500	0568	3490	2754	0006266	0508	14819								
		OBS	0500	0568	34900	2754			14819								
		OBS	0512	0502	34860	2758			14793								
		OBS	0533	0569	35004	2762			14826								
		OBS	0570	0537	35000	2765			14819								
		OBS	0590	0562	35060	2767			14833								
		STD	0600	0547	3504	2767	0005103	0564	14829								
		OBS	0600	0547	35038	2767			14829								
		STD	0700	0487	3500	2771	0004731	0614	14820								
		OBS	0700	0487	35002	2771			14820								
		STD	0800	0467	3502	2775	0004476	0660	14829								
		OBS	0800	0467	35018	2775			14829								
		STD	0900	0457	3503	2777	0004392	0704	14842								
		OBS	0900	0457	35027	2777			14842								
		STD	1000	0423	3499	2778	0004344	0748	14844								
		OBS	1000	0423	34990	2778			14844								
		OBS	1050	0398	34969	2779			14841								
		STD	1100	0418	3501	2779	0004254	0791	14858								
		OBS	1100	0418	35007	2779			14858								
		STD	1200	0416	3502	2780	0004266	0833	14874								
		OBS	1200	0416	35015	2780			14874								
		STD	1300	0404	3501	2781	0004229	0876	14886								
		OBS	1300	0404	35012	2781			14886								
		STD	1400	0387	3500	2782	0004196	0918	14896								
		OBS	1400	0387	34999	2782			14896								
		STD	1500	0384	3500	2783	0004230	0960	14911								
		OBS	1500	0384	35001	2783			14911								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT INCHES	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
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076	CC		43180N	047425W		149	37	04	09	174	1969	IIP	10394		3566	15	23	1	2		X1	0	6	0022
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	METER (mbs)	DRY BULB	WET BULB												
						OT	SO	27	S15	125	053	050	7					31						
MESSAGE TIME HR 1/10	CST ND.	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 - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₂ -N μg - at/l	Si D ₄ -Si μg - at/l	pH	S C					
174		STD	0000	0570	3355	2646		0015764		0000	14719													
		OBS	0000	0570	33545	2646					14719													
005		STD	0010	0580	3371	2658		0014664		0015	14727													
		OBS	0010	0580	33709	2658					14727													
		STD	0020	0615	3380	2661		0014413		0030	14744													
		OBS	0020	0615	33800	2661					14744													
		STD	0030	0575	3371	2659		0014622		0044	14729													
		OBS	0030	0575	33710	2659					14729													
		STD	0050	0410	3364	2672		0013390		0072	14663													
		OBS	0050	0410	33640	2672					14663													
		STD	0075	0905	3479	2697		0011146		0103	14879													
		OBS	0075	0905	34790	2697					14879													
		OBS	0097	1040	35200	2706					14937													
		STD	0100	1030	3514	2703		0010627		0130	14933													
		OBS	0100	1030	35140	2703					14933													
		STD	0125	0893	3497	2713		0009728		0156	14885													
		OBS	0125	0893	34970	2713					14885													
		STD	0150	0809	3495	2724		0008660		0179	14857													
		OBS	0150	0809	34950	2724					14857													
		STD	0200	0743	3499	2737		0007503		0219	14840													
		OBS	0200	0743	34990	2737					14840													
		STD	0250	0515	3472	2746		0006653		0254	14754													
OBS	0250	0515	34718	2746					14754															
OBS	0275	0334	34470	2745					14679															
STD	0300	0435	3473	2755		0005749		0285	14729															
OBS	0300	0435	34725	2755					14729															
OBS	0325	0511	34887	2759					14767															
OBS	0350	0486	34880	2762					14760															
OBS	0361	0508	34927	2763					14772															
OBS	0375	0492	34912	2764					14767															
STD	0400	0540	3504	2768		0004758		0338	14793															
OBS	0400	0540	35038	2768					14793															
OBS	0417	0550	35058	2768					14800															
STD	0500	0503	3501	2770		0004635		0385	14794															
OBS	0500	0503	35010	2770					14794															
STD	0600	0437	3499	2776		0004114		0429	14783															
OBS	0600	0437	34989	2776					14783															
STD	0700	0419	3496	2776		0004213		0470	14792															
OBS	0700	0419	34961	2776					14792															
STD	0800	0402	3496	2777		0004140		0512	14801															
OBS	0800	0402	34957	2777					14801															
STD	0900	0376	3493	2777		0004149		0553	14806															
OBS	0900	0376	34927	2777					14806															
STD	1000	0385	3496	2779		0004138		0595	14827															
OBS	1000	0385	34955	2779					14827															
STD	1100	0382	3496	2779		0004154		0636	14843															
OBS	1100	0382	34960	2779					14843															
STD	1200	0376	3496	2780		0004168		0678	14857															
OBS	1200	0376	34960	2780					14857															
STD	1300	0375	3497	2781		0004154		0720	14873															
OBS	1300	0375	34972	2781					14873															
STD	1400	0373	3498	2782		0004170		0761	14889															
OBS	1400	0373	34978	2782					14889															
STD	1500	0366	3498	2783		0004150		0803	14903															
OBS	1500	0366	34980	2783					14903															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WIND DIR SPEED KTS	MARSOEN 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
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076		CC	43330N	048182W	149	38	04	09	209	1969	11P	10395		3089	15	23	2	2		X2	0	6	0023
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE											
						DT	SD	27	S17	129	06	05	7	27									

MESSAGE TIME HR 1/10	CASE 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 $\mu\text{g} - \text{dl/l}$	Si O ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	3 C C
		STO	0000	0469	3373	2672	0013304	0000	14680								
209		OBS	0000	0469	33725	2672			14680								
		STO	0010	0468	3373	2672	0013303	0013	14682								
		OBS	0010	0468	33725	2672			14682								
		STO	0020	0468	3373	2672	0013313	0027	14683								
004		OBS	0020	0468	33725	2672			14683								
		STO	0030	0467	3373	2673	0013298	0040	14684								
		OBS	0030	0467	33727	2673			14684								
		STO	0050	0457	3373	2674	0013212	0066	14684								
		OBS	0050	0457	33727	2674			14684								
		STO	0075	0383	3391	2696	0011093	0097	14659								
		OBS	0075	0383	33913	2696			14659								
		OBS	0093	0318	34180	2724			14638								
		STO	0100	0330	3426	2729	0008002	0121	14645								
		OBS	0100	0330	34260	2729			14645								
		STO	0125	0390	3453	2744	0006568	0139	14679								
		OBS	0125	0390	34530	2744			14679								
		STO	0150	0435	3473	2755	0005594	0154	14704								
		OBS	0150	0435	34725	2755			14704								
		OBS	0165	0455	34800	2759			14716								
		OBS	0175	0420	34760	2760			14703								
		STO	0200	0477	3490	2764	0004798	0180	14732								
		OBS	0200	0477	34900	2764			14732								
		STO	0250	0471	3494	2768	0004526	0203	14738								
		OBS	0250	0471	34935	2768			14738								
		STO	0300	0455	3494	2770	0004357	0226	14740								
		OBS	0300	0455	34941	2770			14740								
		STO	0400	0429	3494	2773	0004180	0268	14746								
		OBS	0400	0429	34940	2773			14746								
		STO	0500	0405	3494	2775	0004020	0309	14752								
		OBS	0500	0405	34939	2775			14752								
		STO	0600	0382	3492	2776	0004023	0350	14759								
		OBS	0600	0382	34917	2776			14759								
		STO	0700	0390	3492	2776	0004175	0390	14779								
		OBS	0700	0390	34921	2776			14779								
		STO	0800	0375	3493	2778	0004027	0432	14789								
		OBS	0800	0375	34930	2778			14789								
		STO	0900	0367	3493	2779	0004023	0472	14803								
		OBS	0900	0367	34930	2779			14803								
		STO	1000	0365	3494	2780	0004018	0512	14819								
		OBS	1000	0365	34939	2780			14819								
		STO	1100	0364	3495	2780	0004032	0552	14835								
		OBS	1100	0364	34947	2780			14835								
		STO	1200	0363	3495	2781	0004060	0593	14851								
		OBS	1200	0363	34953	2781			14851								
		STO	1300	0363	3496	2781	0004100	0633	14868								
		OBS	1300	0363	34959	2781			14868								
		STO	1400	0363	3496	2782	0004161	0675	14885								
		OBS	1400	0363	34962	2782			14885								
		STO	1500	0362	3497	2782	0004179	0716	14902								
		OBS	1500	0362	34969	2782			14902								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT ROUTE	MARSOEN 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	IO. NO.					10°	1°	M.O	DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318076		CC	43432N	048412W		149	38	04	10	084	1969	IIP	10396		2542	15	30	1	3		X1	0	6	0024
		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	28	S15	220	04	04	7	37														
MESSNGR TIME HR 1/10	CST OF 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S							
		STD	0000	0125	3312	2654	0014998	0000	14524															
084		OBS	0000	0125	33122	2654			14524															
		STD	0010	0127	3313	2654	0014988	0015	14526															
		OBS	0010	0127	33125	2654			14526															
		STD	0020	0127	3313	2654	0014988	0030	14528															
006		OBS	0020	0127	33125	2654			14528															
		OBS	0025	0242	33500	2676			14585															
		STD	0030	0116	3369	2700	0010627	0043	14532															
		OBS	0030	0116	33690	2700			14532															
		OBS	0042	0190	33850	2708			14569															
		STD	0050	0150	3385	2711	0009675	0063	14553															
		OBS	0050	0150	33845	2711			14553															
		STD	0075	0265	3400	2714	0009378	0087	14610															
		OBS	0075	0265	34000	2714			14610															
		OBS	0080	0174	34080	2728			14572															
		STD	0100	0456	3447	2733	0007677	0108	14701															
		OBS	0100	0456	34470	2733			14701															
		STD	0125	0449	3455	2740	0007044	0127	14704															
		OBS	0125	0449	34548	2740			14704															
		OBS	0143	0400	34545	2745			14686															
		STD	0150	0422	3459	2746	0006469	0144	14697															
		OBS	0150	0422	34590	2746			14697															
		OBS	0161	0448	34648	2748			14710															
		OBS	0165	0400	34626	2751			14691															
		OBS	0192	0369	34627	2754			14682															
		STD	0200	0399	3472	2759	0005304	0173	14697															
		OBS	0200	0399	34720	2759			14697															
		OBS	0204	0425	34775	2760			14710															
		OBS	0211	0372	34660	2757			14687															
		OBS	0219	0435	34810	2762			14717															
		OBS	0221	0401	34728	2759			14702															
		OBS	0224	0442	34885	2767			14721															
		STD	0250	0380	3475	2763	0004915	0198	14698															
		OBS	0250	0380	34752	2763			14698															
		OBS	0279	0485	34927	2766			14749															
		STD	0300	0478	3493	2767	0004678	0222	14750															
		OBS	0300	0478	34933	2767			14750															
		STD	0400	0457	3496	2771	0004348	0268	14758															
		OBS	0400	0457	34960	2771			14758															
		STD	0500	0444	3497	2774	0004202	0310	14769															
		OBS	0500	0444	34974	2774			14769															
		STD	0600	0415	3495	2775	0004172	0352	14773															
		OBS	0600	0415	34947	2775			14773															
		STD	0700	0388	3492	2776	0004137	0394	14778															
		OBS	0700	0388	34923	2776			14778															
		STD	0800	0378	3492	2777	0004136	0435	14790															
		OBS	0800	0378	34920	2777			14790															
		STD	0900	0385	3494	2778	0004159	0477	14810															
		OBS	0900	0385	34940	2778			14810															
		STD	1000	0386	3495	2778	0004187	0518	14828															
		OBS	1000	0386	34950	2778			14828															
		STD	1100	0381	3495	2779	0004223	0560	14842															
		OBS	1100	0381	34949	2779			14842															
		STD	1200	0372	3495	2779	0004229	0603	14855															
		OBS	1200	0372	34945	2779			14855															
		STD	1300	0381	3497	2780	0004252	0645	14876															
		OBS	1300	0381	34969	2780			14876															
		STD	1400	0376	3497	2781	0004253	0688	14891															
		OBS	1400	0376	34972	2781			14891															
		STD	1500	0373	3498	2782	0004248	0730	14906															
		OBS	1500	0373	34979	2782			14906															

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE DD-MN-YY	MARS DEN 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.1/10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076	CC		43440N	048540W	149	38	04	10	110	1969	11P	10397	1255	11	30	1	2		X1	0	6	0025
						WATER		WIND			AIR TEMP. °C											
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						DT	SD	26	512	237	02	02	7	21								

MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDWALT-X10 ³	Σ Δ O OYN. 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	AN- CL
		STD	0000	0071	3295	2644	0015997	0000	14497								
110		OBS	0000	0071	32950	2644			14497								
		STD	0010	0070	3295	2644	0015990	0016	14498								
		OBS	0010	0070	32950	2644			14498								
		STD	0020	0069	3296	2645	0015907	0032	14499								
005		OBS	0020	0069	32960	2645			14499								
		STD	0030	0064	3298	2647	0015711	0048	14499								
		OBS	0030	0064	32982	2647			14499								
		STD	0050	0037	3305	2654	0015026	0078	14491								
		OBS	0050	0037	33053	2654			14491								
		STD	0075	0023	3322	2668	0013677	0114	14491								
		OBS	0075	0023	33220	2668			14491								
		STD	0100	0067	3378	2711	0009621	0143	14523								
		OBS	0100	0067	33784	2711			14523								
		STD	0125	0124	3402	2726	0008226	0166	14556								
		OBS	0125	0124	34015	2726			14556								
		STD	0150	0148	3411	2732	0007677	0186	14572								
		OBS	0150	0148	34110	2732			14572								
		STD	0200	0250	3445	2751	0005927	0220	14630								
		OBS	0200	0250	34450	2751			14630								
		STD	0250	0317	3461	2758	0005337	0248	14669								
		OBS	0250	0317	34613	2758			14669								
		STD	0300	0357	3472	2763	0004965	0274	14696								
		OBS	0300	0357	34720	2763			14696								
		STD	0400	0398	3484	2768	0004578	0321	14732								
		OBS	0400	0398	34841	2768			14732								
		STD	0500	0407	3489	2771	0004408	0366	14752								
		OBS	0500	0407	34890	2771			14752								
		STD	0600	0405	3491	2773	0004355	0410	14768								
		OBS	0600	0405	34907	2773			14768								
		STD	0700	0397	3491	2774	0004344	0454	14782								
		OBS	0700	0397	34909	2774			14782								
		STD	0800	0394	3491	2775	0004365	0497	14797								
		OBS	0800	0394	34914	2775			14797								
		STD	0900	0393	3492	2775	0004416	0541	14813								
		OBS	0900	0393	34918	2775			14813								
		STD	1000	0394	3492	2775	0004505	0586	14831								
		OBS	1000	0394	34920	2775			14831								
		STD	1100	0394	3492	2775	0004581	0631	14847								
		OBS	1100	0394	34922	2775			14847								
		OBS	1150	0394	34925	2775			14856								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	NODC STATION NUMBER	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	
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318076	CC		43482N	049013W		149	39	04	10	125	1969	IIP	10398	0380	04	30	1	2		X1	0	6	0026
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. IM	DIR.	SPEED OR FORCE			DRY BULB	WET BULB										
						DT	SD	25	S10	247	025	020	7				15						
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta \sigma$ 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 $\mu\text{g} - \text{dl/l}$	SI O ₄ -Si $\mu\text{g} - \text{dl/l}$	pH					
		STO	0000	0071	3295	2644		0015997	0000		14497												
125		OBS	0000	0071	32950	2644					14497												
		STO	0010	0070	3295	2644		0015990	0016		14498												
		OBS	0010	0070	32950	2644					14498												
		STO	0020	0070	3295	2644		0015989	0032		14500												
002		OBS	0020	0070	32950	2644					14500												
		STO	0030	0067	3295	2644		0015987	0048		14500												
		OBS	0030	0067	32948	2644					14500												
		STO	0050	0043	3303	2652		0015217	0079		14494												
		OBS	0050	0043	33032	2652					14494												
		OBS	0068	0023	33345	2678					14492												
		STO	0075	0029	3348	2689		0011727	0113		14497												
		OBS	0075	0029	33480	2689					14497												
		STO	0100	0081	3381	2712		0009506	0139		14530												
		OBS	0100	0081	33810	2712					14530												
		STO	0125	0095	3388	2717		0009085	0163		14541												
		OBS	0125	0095	33877	2717					14541												
		STO	0150	0117	3398	2724		0008457	0185		14557												
		OBS	0150	0117	33979	2724					14557												
		OBS	0163	0122	34000	2725					14561												
		STO	0200	0192	3427	2741		0006826	0223		14602												
		OBS	0200	0192	34268	2741					14602												
		STO	0250	0253	3444	2750		0006056	0255		14639												
		OBS	0250	0253	34440	2750					14639												
		STO	0300	0328	3464	2759		0005277	0283		14683												
		OBS	0300	0328	34640	2759					14683												
		OBS	0362	0335	34671	2761					14696												

REFERENCE		SNIP CODE	LATITUDE ° 1/10	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
CTRY CODE	IO. NO.					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			OBSERVATIONS					TYPE	AMT	
																WATER	WIND	AIR TEMP. °C					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB	VIL CODE	NO. OBS. DEPTHS									
						DT	SD	26	S11	247	070	064	7	09									
MESSAGE TIME HR 1/10	CST 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					
		STO	0000	0090	3295	2642		0016139	0000		14505												
140		OBS	0000	0090	32945	2642					14505												
		STD	0010	0083	3295	2643		0016076	0016		14504												
		OBS	0010	0083	32948	2643					14504												
		STD	0020	0055	3302	2650		0015376	0032		14494												
002		OBS	0020	0055	33020	2650					14494												
		STD	0030	0101	3324	2666		0013926	0046		14519												
		OBS	0030	0101	33244	2666					14519												
		OBS	0035	0121	33300	2669					14530												
		OBS	0040	0095	33340	2674					14520												
		STD	0050	0145	3339	2674		0013116	0074		14544												
		OBS	0050	0145	33387	2674					14544												
		OBS	0063	0115	33420	2679					14534												
		STD	0075	0106	3343	2680		0012559	0106		14532												
		OBS	0075	0106	33428	2680					14532												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDICATOR	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
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mb)		DRY BULB	WET BULB			
DT	SD	23	S16	227	050	040	7			

MESSAGE TIME HR 1/10	CAS NO.	CARD 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 $\mu g - dl/l$	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	STATION CODE
177		STO	0000	0123	3315	2656	0014811	0000	14523								
		OBS	0000	0123	33145	2656			14523								
		OBS	0004	0111	33185	2660			14519								
003		STO	0010	0114	3321	2662	0014300	0015	14521								
		OBS	0010	0114	33205	2662			14521								
		STO	0020	0122	3322	2662	0014235	0029	14527								
		OBS	0020	0122	33220	2662			14527								
		STO	0030	0113	3322	2663	0014181	0043	14524								
		OBS	0030	0113	33220	2663			14524								
		STO	0050	0108	3323	2664	0014113	0071	14526								
		OBS	0050	0108	33225	2664			14526								
									14526								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDICATOR	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
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318076	CC	44348N	049035W	149	49	04	10	195	1969	IIP	10401	0272	02	26	2	3		X1	0	6			0029
					WATER		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		22		S14		230		030		030		7		11							

MESSAGE TIME HR 1/10	CAS NO.	CARD 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 $\mu g - dl/l$	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	STATION CODE
195		STO	0000	0087	3295	2643	0016061	0000	14504								
		OBS	0000	0087	32953	2643			14504								
		STO	0010	0085	3295	2643	0016072	0016	14505								
004		OBS	0010	0085	32950	2643			14505								
		STO	0020	0080	3295	2643	0016044	0032	14504								
		OBS	0020	0080	32950	2643			14504								
		STO	0030	0076	3295	2644	0016021	0048	14504								
		OBS	0030	0076	32950	2644			14504								
		STO	0050	0038	3323	2668	0013682	0078	14494								
		OBS	0050	0038	33230	2668			14494								
		STO	0075	0027	3342	2684	0012174	0110	14496								
		OBS	0075	0027	33420	2684			14496								
		STO	0100	0027	3342	2684	0012177	0141	14500								
		OBS	0100	0027	33419	2684			14500								
		STO	0125	0026	3350	2691	0011544	0170	14505								
		OBS	0125	0026	33501	2691			14505								
		STO	0150	0039	3359	2697	0010934	0198	14516								
		OBS	0150	0039	33590	2697			14516								
		STO	0200	0044	3361	2698	0010813	0253	14527								
		OBS	0200	0044	33609	2698			14527								
		STO	0250	0093	3386	2715	0009226	0303	14561								
		OBS	0250	0093	33858	2715			14561								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	TIDE MOON	MARS DEN SQUARE		STATION TIME IGMTI				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	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		
318076		CC	44311N	048549W	149	48	04	10	213	1969	IIP	10402	0817	07	26	2	3		X1	0	6		0030	
		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															
		DT	SD	24	S14	234	020	020	7	17														
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OBS. ML 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 C							
		STD	0000	0083	3295	2643	0016100	0000	14502															
213		OBS	0000	0083	32945	2643			14502															
		STD	0010	0076	3294	2643	0016099	0016	14501															
		OBS	0010	0076	32940	2643			14501															
		STD	0020	0037	3307	2656	0014879	0032	14486															
005		OBS	0020	0037	33073	2656			14486															
		STD	0030	0017	3312	2661	0014405	0046	14480															
		OBS	0030	0017	33122	2661			14480															
		STD	0050	0018	3329	2674	0013124	0074	14486															
		OBS	0050	0018	33290	2674			14486															
		STD	0075	0033	3354	2693	0011329	0104	14500															
		OBS	0075	0033	33535	2693			14500															
		STD	0100	0063	3375	2708	0009886	0131	14521															
		OBS	0100	0063	33746	2708			14521															
		STD	0125	0085	3389	2718	0008924	0154	14537															
		OBS	0125	0085	33890	2718			14537															
		STD	0150	0103	3396	2723	0008516	0176	14550															
		OBS	0150	0103	33959	2723			14550															
		STD	0200	0150	3413	2734	0007546	0216	14582															
		OBS	0200	0150	34131	2734			14582															
		STD	0250	0201	3428	2742	0006811	0252	14614															
		OBS	0250	0201	34282	2742			14614															
		STD	0300	0235	3441	2749	0006153	0285	14639															
		OBS	0300	0235	34410	2749			14639															
		STD	0400	0299	3458	2757	0005542	0343	14686															
		OBS	0400	0299	34577	2757			14686															
		STD	0500	0381	3481	2767	0004756	0395	14740															
		OBS	0500	0381	34805	2767			14740															
		STD	0600	0405	3488	2771	0004534	0441	14768															
		OBS	0600	0405	34883	2771			14768															
		STD	0700	0403	3490	2773	0004480	0486	14784															
		OBS	0700	0403	34900	2773			14784															
		OBS	0750	0403	34906	2773			14792															

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DOCK BOAT	MARS 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'	MD	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
316076	CC		44320N	048360W		149	48	04	10	235	1969	IIP	10403	2001	15	21	0	2		X0	0	6	0031	
							WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
							COLD R CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
							DT	SD	20	S15	251	020	020	7	36									
MESSNGR 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	PD ₄ -P μg - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	Si O ₄ -Si μg - at/l	pH							
103		STD	0000	0228	3339	2668	0013681		0000	14573														
		OBS	0000	0228	33388	2668				14573														
		STD	0010	0228	3339	2669	0013654		0014	14575														
012		OBS	0010	0228	33392	2669				14575														
		STD	0020	0218	3338	2668	0013674		0027	14572														
		OBS	0020	0218	33380	2668				14572														
		STD	0030	0202	3354	2682	0012347		0040	14568														
		OBS	0030	0202	33540	2682				14568														
		OBS	0033	0262	33460	2671				14594														
		OBS	0036	0237	33580	2683				14585														
		STD	0050	0235	3384	2704	0010333		0063	14590														
		OBS	0050	0235	33840	2704				14590														
		OBS	0058	0392	34000	2702				14661														
		OBS	0067	0287	33900	2704				14617														
		OBS	0072	0384	34145	2714				14662														
		STD	0075	0360	3414	2716	0009166		0087	14652														
		OBS	0075	0360	34140	2716				14652														
		OBS	0085	0259	34020	2716				14609														
		OBS	0091	0309	34160	2723				14634														
		STD	0100	0287	3423	2731	0007829		0109	14627														
		OBS	0100	0287	34232	2731				14627														
		STD	0125	0351	3445	2742	0006788		0127	14661														
		OBS	0125	0351	34450	2742				14661														
		OBS	0132	0272	34390	2745				14627														
		STD	0150	0292	3443	2746	0006413		0143	14640														
		OBS	0150	0292	34430	2746				14640														
		OBS	0159	0342	34530	2749				14664														
		OBS	0163	0305	34450	2746				14648														
		STD	0200	0342	3463	2757	0005447		0173	14672														
		OBS	0200	0342	34625	2757				14672														
		OBS	0230	0448	34820	2761				14724														
		STD	0250	0464	3491	2767	0004634		0198	14735														
		OBS	0250	0464	34910	2767				14735														
	STD	0300	0460	3491	2767	0004645		0221	14742															
	OBS	0300	0460	34910	2767				14742															
	OBS	0344	0444	34938	2771				14743															
	STD	0400	0479	3500	2772	0004342		0266	14767															
	OBS	0400	0479	34995	2772				14767															
	STD	0500	0399	3491	2774	0004177		0309	14749															
	OBS	0500	0399	34909	2774				14749															
	STD	0600	0387	3490	2774	0004175		0351	14761															
	OBS	0600	0387	34904	2774				14761															
	STD	0700	0385	3491	2775	0004207		0393	14777															
	OBS	0700	0385	34909	2775				14777															
	STD	0800	0381	3491	2776	0004244		0435	14792															
	OBS	0800	0381	34910	2776				14792															
	STD	0900	0375	3491	2776	0004256		0477	14806															
	OBS	0900	0375	34911	2776				14806															
	STD	1000	0372	3491	2777	0004286		0520	14821															
	OBS	1000	0372	34914	2777				14821															
	STD	1100	0385	3495	2778	0004301		0563	14844															
	OBS	1100	0385	34945	2778				14844															
	STD	1200	0381	3495	2778	0004333		0606	14859															
	OBS	1200	0381	34946	2778				14859															
	STD	1300	0385	3497	2780	0004317		0650	14878															
	OBS	1300	0385	34967	2780				14878															
	STD	1400	0379	3496	2780	0004364		0693	14892															
	OBS	1400	0379	34962	2780				14892															
	STD	1500	0373	3497	2781	0004314		0736	14906															
	OBS	1500	0373	34970	2781				14906															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT MDCR	MARS DEN		STATION TIME			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'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			OBSERVATIONS					TYPE	AMT	
																DIR	HGT	PER	SEA				
318076	CC	44308N	048215W	149	48	04	11	013	1969	IIP	10404	3019	15	20	1	4			XO	0	6		0032
						WATER		WIND		BARO- METER (mbars)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE	DRY BULB	WET BULB												
						DT	SD	20	S20	257	040	040	7					25					
MESSAGE TIME HR 1/10	CAST 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	PD ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	ST CC			
		STD	0000	0525	3386	2677		0012879		0000		14705											
013		OBS	0000	0525	33862	2677						14705											
		STD	0010	0527	3387	2677		0012890		0013		14708											
		OBS	0010	0527	33865	2677						14708											
		STD	0020	0526	3387	2677		0012890		0026		14709											
010		OBS	0020	0526	33865	2677						14709											
		STD	0030	0527	3387	2677		0012883		0039		14711											
		OBS	0030	0527	33869	2677						14711											
		STD	0050	0537	3395	2682		0012411		0064		14720											
		OBS	0050	0537	33950	2682						14720											
		STD	0075	0435	3416	2710		0009795		0092		14684											
		OBS	0075	0435	34155	2710						14684											
		STD	0100	0411	3435	2728		0008094		0114		14681											
		OBS	0100	0411	34352	2728						14681											
		STD	0125	0365	3441	2737		0007223		0133		14666											
		OBS	0125	0365	34410	2737						14666											
		STD	0150	0377	3451	2744		0006634		0151		14677											
		OBS	0150	0377	34507	2744						14677											
		OBS	0185	0496	34750	2750						14736											
		STD	0200	0473	3474	2752		0005950		0182		14728											
		OBS	0200	0473	34740	2752						14728											
		STD	0250	0485	3485	2759		0005350		0210		14743											
		OBS	0250	0485	34846	2759						14743											
		STD	0300	0474	3491	2765		0004841		0236		14748											
		OBS	0300	0474	34905	2765						14748											
		STD	0400	0478	3497	2770		0004502		0282		14767											
		OBS	0400	0478	34972	2770						14767											
		STD	0500	0451	3498	2774		0004238		0326		14772											
		OBS	0500	0451	34980	2774						14772											
		STD	0600	0432	3497	2775		0004197		0368		14781											
		OBS	0600	0432	34970	2775						14781											
		STD	0700	0435	3500	2777		0004150		0410		14799											
		OBS	0700	0435	34995	2777						14799											
		STD	0800	0396	3495	2777		0004137		0451		14798											
		OBS	0800	0396	34948	2777						14798											
		STD	0900	0389	3495	2778		0004154		0493		14812											
		OBS	0900	0389	34947	2778						14812											
		STD	1000	0386	3495	2778		0004172		0535		14828											
		OBS	1000	0386	34952	2778						14828											
		STD	1100	0385	3496	2779		0004191		0576		14844											
		OBS	1100	0385	34960	2779						14844											
		STD	1200	0380	3496	2780		0004188		0618		14859											
		OBS	1200	0380	34964	2780						14859											
		STD	1300	0376	3497	2781		0004167		0660		14874											
		OBS	1300	0376	34972	2781						14874											
		STD	1400	0371	3498	2782		0004167		0702		14889											
		OBS	1400	0371	34975	2782						14889											
		STD	1500	0366	3498	2783		0004150		0743		14903											
		OBS	1500	0366	34980	2783						14903											

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARS SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLGCO CODES		NOCC STATION NUMBER
CTRY CODE	IO. HO.					10°	1°	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

318076 CC 44270N 048060W 149 48 04 11 032 1969 IIP 10405 3323 15 22 2 3 X0 0 6 0033

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			
PT	SD	20	S18	264	040	040	7	25	

DT SD 20 S18 264 040 040 7 25

MESSAGE TIME HR 1/10	CAST NO.	CARO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ 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 ₃ -N $\mu g \cdot dl/l$	NO ₂ -N $\mu g \cdot dl/l$	SiO ₄ -Si $\mu g \cdot dl/l$	pH	S CL
		STD	0000	0465	3373	2673	0013225	0000	14679								
032		OBS	0000	0465	33730	2673			14679								
		STD	0010	0475	3375	2673	0013227	0013	14685								
		OBS	0010	0475	33745	2673			14685								
		STD	0020	0491	3376	2673	0013272	0026	14693								
010		OBS	0020	0491	33763	2673			14693								
		STD	0030	0498	3380	2675	0013080	0040	14698								
		OBS	0030	0498	33800	2675			14698								
		STD	0050	0517	3382	2675	0013138	0066	14710								
		OBS	0050	0517	33823	2675			14710								
		STD	0075	0345	3400	2707	0010079	0095	14644								
		OBS	0075	0345	34000	2707			14644								
		STD	0100	0291	3419	2727	0008180	0118	14628								
		OBS	0100	0291	34190	2727			14628								
		STD	0125	0324	3433	2735	0007438	0137	14648								
		OBS	0125	0324	34330	2735			14648								
		STD	0150	0398	3453	2744	0006672	0155	14686								
		OBS	0150	0398	34530	2744			14686								
		OBS	0191	0504	34760	2750			14740								
		STD	0200	0482	3474	2751	0006051	0187	14732								
		OBS	0200	0482	34740	2751			14732								
		STD	0250	0488	3485	2759	0005370	0215	14744								
		OBS	0250	0488	34848	2759			14744								
		STD	0300	0495	3491	2763	0005046	0241	14756								
		OBS	0300	0495	34910	2763			14756								
		STD	0400	0471	3495	2769	0004599	0290	14763								
		OBS	0400	0471	34948	2769			14763								
		STD	0500	0451	3496	2772	0004372	0334	14772								
		OBS	0500	0451	34962	2772			14772								
		STD	0600	0435	3496	2774	0004277	0378	14782								
		OBS	0600	0435	34964	2774			14782								
		STD	0700	0420	3496	2776	0004203	0420	14792								
		OBS	0700	0420	34964	2776			14792								
		STD	0800	0407	3495	2776	0004273	0462	14803								
		OBS	0800	0407	34947	2776			14803								
		STD	0900	0402	3496	2777	0004213	0505	14818								
		OBS	0900	0402	34960	2777			14818								
		STD	1000	0389	3495	2778	0004216	0547	14829								
		OBS	1000	0389	34951	2778			14829								
		STD	1100	0388	3496	2779	0004205	0589	14845								
		OBS	1100	0388	34963	2779			14845								
		STD	1200	0380	3496	2780	0004218	0631	14859								
		OBS	1200	0380	34960	2780			14859								
		STD	1300	0372	3497	2781	0004153	0673	14872								
		OBS	1300	0372	34967	2781			14872								
		STD	1400	0368	3497	2782	0004166	0715	14887								
		OBS	1400	0368	34970	2782			14887								
		STD	1500	0366	3498	2782	0004172	0756	14903								
		OBS	1500	0366	34977	2782			14903								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DATE MO DAY	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		MOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	OAT		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE
318076		CC	44238N	047542W	1969	149	47	04	11	053	11P	10406	3433	15	20	1	2		X0	0	6	0034
						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	18	512	254	070	064	7	30								

MESSNGR TIME 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -H μg - ml/l	SiO ₄ -Si μg - ml/l	pH	SCC
		STD	0000	0598	3397	2676	0012933	0000	14736								
053		OBS	0000	0598	33967	2676			14736								
		STD	0010	0617	3402	2678	0012779	0013	14746								
		OBS	0010	0617	34020	2678			14746								
		STD	0020	0620	3410	2684	0012231	0025	14750								
010		OBS	0020	0620	34100	2684			14750								
		STD	0030	0717	3422	2680	0012591	0038	14792								
		OBS	0030	0717	34220	2680			14792								
		STD	0050	0742	3428	2681	0012513	0063	14806								
		OBS	0050	0742	34280	2681			14806								
		OBS	0058	0643	34240	2692			14768								
		OBS	0070	0805	34660	2702			14838								
		STD	0075	0765	3458	2702	0010642	0092	14823								
		OBS	0075	0765	34580	2702			14823								
		OBS	0082	0667	34465	2706			14784								
		OBS	0090	0768	34720	2712			14828								
		STD	0100	0724	3469	2716	0009300	0117	14812								
		OBS	0100	0724	34690	2716			14812								
		STD	0125	0600	3459	2725	0008471	0139	14766								
		OBS	0125	0600	34590	2725			14766								
		STD	0150	0583	3464	2731	0007922	0159	14764								
		OBS	0150	0583	34640	2731			14764								
		STD	0200	0524	3471	2744	0006780	0196	14749								
		OBS	0200	0524	34707	2744			14749								
		OBS	0232	0639	34930	2747			14804								
		STD	0250	0611	3495	2752	0006103	0228	14796								
		OBS	0250	0611	34950	2752			14796								
		STD	0300	0569	3494	2757	0005716	0258	14787								
		OBS	0300	0569	34940	2757			14787								
		OBS	0331	0506	34915	2762			14766								
		STD	0400	0495	3496	2767	0004792	0311	14773								
		OBS	0400	0495	34960	2767			14773								
		STD	0500	0481	3499	2771	0004555	0357	14785								
		OBS	0500	0481	34985	2771			14785								
		STD	0600	0446	3497	2773	0004369	0402	14786								
		OBS	0600	0446	34969	2773			14786								
		STD	0700	0434	3498	2776	0004249	0445	14798								
		OBS	0700	0434	34980	2776			14798								
		STD	0800	0419	3497	2777	0004223	0487	14808								
		OBS	0800	0419	34973	2777			14808								
		STD	0900	0398	3496	2777	0004202	0529	14816								
		OBS	0900	0398	34955	2777			14816								
		STD	1000	0382	3494	2778	0004213	0572	14826								
		OBS	1000	0382	34940	2778			14826								
		STD	1100	0393	3497	2779	0004215	0614	14847								
		OBS	1100	0393	34970	2779			14847								
		STD	1200	0384	3497	2780	0004209	0656	14860								
		OBS	1200	0384	34968	2780			14860								
		STD	1300	0381	3497	2781	0004230	0698	14876								
		OBS	1300	0381	34972	2781			14876								
		STD	1400	0375	3497	2781	0004233	0740	14890								
		OBS	1400	0375	34973	2781			14890								
		STD	1500	0370	3498	2782	0004202	0782	14905								
		OBS	1500	0370	34980	2782			14905								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH INDICATOR	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'S	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		
318076	CC		44188N	047310W		149	47	04	11	082	1969	11P	10407		3713	15	20	1	2		X1	0	6	0035
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB												
						DT	SO	21	S16		254	070				070	7	30						
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ O OYN. 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						
082		STD	0000	0935	3488	2699		0010792		0000	14879													
		OBS	0000	0935	34880	2699					14879													
		STD	0010	0948	3493	2700		0010684		0011	14886													
010		OBS	0010	0948	34925	2700					14886													
		STD	0020	0950	3494	2701		0010626		0021	14888													
		OBS	0020	0950	34940	2701					14888													
		STD	0030	0962	3498	2702		0010542		0032	14895													
		OBS	0030	0962	34980	2702					14895													
		STD	0050	1031	3517	2705		0010309		0053	14925													
		OBS	0050	1031	35170	2705					14925													
		OBS	0055	1120	35370	2705					14961													
		STD	0075	1132	3539	2704		0010457		0079	14968													
		OBS	0075	1132	35394	2704					14968													
		STD	0100	1140	3541	2704		0010514		0105	14975													
		OBS	0100	1140	35414	2704					14975													
		STD	0125	1145	3543	2704		0010570		0131	14982													
		OBS	0125	1145	35427	2704					14982													
		STD	0150	1144	3543	2704		0010629		0158	14985													
		OBS	0150	1144	35425	2704					14985													
		OBS	0175	1148	35438	2705					14991													
		STD	0200	1062	3529	2709		0010296		0210	14963													
		OBS	0200	1062	35290	2709					14963													
		STD	0250	0784	3490	2724		0008845		0258	14863													
		OBS	0250	0784	34900	2724					14863													
		STD	0300	0635	3482	2739		0007453		0299	14812													
		OBS	0300	0635	34820	2739					14812													
		OBS	0317	0681	34904	2739					14834													
		OBS	0375	0528	34870	2756					14782													
		STD	0400	0550	3493	2758		0005707		0365	14795													
		OBS	0400	0550	34927	2758					14795													
		OBS	0448	0521	34940	2762					14792													
		OBS	0471	0556	35000	2763					14811													
		STD	0500	0537	3497	2763		0005353		0420	14807													
		OBS	0500	0537	34970	2763					14807													
	STD	0600	0484	3499	2770		0004691		0470	14802														
	OBS	0600	0484	34987	2770					14802														
	STD	0700	0451	3498	2774		0004468		0516	14805														
	OBS	0700	0451	34978	2774					14805														
	STD	0800	0433	3497	2775		0004399		0560	14814														
	OBS	0800	0433	34972	2775					14814														
	STD	0900	0411	3496	2776		0004321		0604	14822														
	OBS	0900	0411	34960	2776					14822														
	STD	1000	0390	3494	2777		0004309		0647	14829														
	OBS	1000	0390	34940	2777					14829														
	STD	1100	0389	3495	2778		0004306		0690	14846														
	OBS	1100	0389	34951	2778					14846														
	STD	1200	0384	3496	2779		0004275		0733	14860														
	OBS	1200	0384	34959	2779					14860														
	STD	1300	0382	3497	2780		0004294		0776	14876														
	OBS	1300	0382	34965	2780					14876														
	STD	1400	0374	3497	2781		0004279		0819	14890														
	OBS	1400	0374	34965	2781					14890														
	STD	1500	0376	3499	2782		0004221		0861	14908														
	OBS	1500	0376	34988	2782					14908														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUA RE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER			
CTRY CODE	IC. NO.				10°	1°	MD	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT			
318076		CC	44150N	047120W	149	47	04	11	107	1969	IIP	10408	3849	15	23	2	3		X1	0	6		0036	
					WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		ND, DBS, DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB		WET BULB												
					DT	SD	21	S18		268		099		097		7		31						
MESSING TIME OF NR 1/10	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ D DYN. M. $\times 10^3$		SOUND VELOCITY		D ₂ ml/l	PD 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 D ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH		S C			
	STD	0000	1185	3554	2705		0010181		0000		14976													
107	OBS	0000	1185	35535	2705						14976													
	STD	0010	1185	3554	2705		0010207		0010		14978													
	OBS	0010	1185	35535	2705						14978													
010	STD	0020	1185	3554	2705		0010233		0020		14980													
	OBS	0020	1185	35535	2705						14980													
	STD	0030	1186	3554	2705		0010277		0031		14982													
	OBS	0030	1186	35535	2705						14982													
	STD	0050	1187	3554	2705		0010346		0051		14985													
	OBS	0050	1187	35535	2705						14985													
	STD	0075	1188	3554	2705		0010429		0077		14990													
	OBS	0075	1188	35535	2705						14990													
	STD	0100	1188	3554	2705		0010493		0103		14994													
	OBS	0100	1188	35535	2705						14994													
	STD	0125	1188	3554	2705		0010557		0130		14998													
	OBS	0125	1188	35535	2705						14998													
	STD	0150	1188	3554	2705		0010599		0156		15002													
	OBS	0150	1188	35538	2705						15002													
	STD	0200	1188	3554	2705		0010720		0209		15010													
	OBS	0200	1188	35539	2705						15010													
	OBS	0220	1187	35535	2705						15013													
	STD	0250	1093	3536	2709		0010440		0262		14983													
	OBS	0250	1093	35360	2709						14983													
	STD	0300	0940	3517	2721		0009340		0312		14933													
	OBS	0300	0940	35172	2721						14933													
	OBS	0350	0789	35020	2733						14883													
	STD	0400	0715	3496	2739		0007663		0397		14862													
	OBS	0400	0715	34960	2739						14862													
	OBS	0468	0524	34840	2754						14795													
	OBS	0490	0562	34939	2757						14815													
	STD	0500	0547	3490	2756		0005998		0465		14810													
	OBS	0500	0547	34900	2756						14810													
	OBS	0522	0522	34935	2762						14804													
	OBS	0533	0531	34969	2764						14810													
	STD	0600	0494	3495	2766		0005088		0521		14806													
	OBS	0600	0494	34950	2766						14806													
	OBS	0630	0512	35018	2770						14819													
	STD	0700	0482	3499	2771		0004795		0570		14818													
	OBS	0700	0482	34985	2771						14818													
	STD	0800	0431	3496	2774		0004464		0616		14813													
	OBS	0800	0431	34960	2774						14813													
	STD	0900	0415	3496	2776		0004384		0661		14823													
	OBS	0900	0415	34958	2776						14823													
	STD	1000	0410	3497	2777		0004353		0704		14838													
	OBS	1000	0410	34967	2777						14838													
	STD	1100	0394	3496	2778		0004323		0748		14848													
	OBS	1100	0394	34957	2778						14848													
	STD	1200	0385	3495	2779		0004331		0791		14861													
	OBS	1200	0385	34953	2779						14861													
	STD	1300	0383	3497	2780		0004306		0834		14877													
	OBS	1300	0383	34965	2780						14877													
	STD	1400	0373	3496	2780		0004317		0877		14889													
	OBS	1400	0373	34958	2780						14889													
	STD	1500	0370	3497	2781		0004282		0920		14905													
	OBS	1500	0370	34969	2781						14905													

REFERENCE		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		MOOC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MO		DAY	HR.1/10			CRUISE NO.	STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318076		CC	44069N	046326W	149	46	04	11	137	1969	IIP	10409	3866	15	23	2	3		X1	0	6		0037
						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	SO	20	S15	936	100	100	7	31															
MESSENGER TIME HR 1/10	CAST OF-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 $\mu\text{g} \cdot \text{dl/l}$	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				
		STD	0000	1202	3556	2703		0010344		0000	14982												
137		OBS	0000	1202	35555	2703					14982												
		STD	0010	1202	3556	2704		0010340		0010	14984												
		OBS	0010	1202	35559	2704					14984												
		STD	0020	1201	3556	2704		0010348		0021	14985												
008		OBS	0020	1201	35559	2704					14985												
		STD	0030	1201	3556	2704		0010374		0031	14987												
		OBS	0030	1201	35559	2704					14987												
		STD	0050	1201	3556	2704		0010426		0052	14990												
		OBS	0050	1201	35559	2704					14990												
		STD	0075	1202	3556	2704		0010517		0078	14995												
		OBS	0075	1202	35558	2704					14995												
		STD	0100	1202	3556	2704		0010574		0104	14999												
		OBS	0100	1202	35559	2704					14999												
		STD	0125	1203	3556	2704		0010650		0131	15003												
		OBS	0125	1203	35560	2704					15003												
		STD	0150	1203	3556	2704		0010715		0158	15007												
		OBS	0150	1203	35560	2704					15007												
		STD	0200	1204	3556	2703		0010863		0212	15016												
		OBS	0200	1204	35560	2703					15016												
		STD	0250	1050	3520	2704		0010866		0266	14965												
		OBS	0250	1050	35200	2704					14965												
		STD	0300	0870	3498	2717		0009679		0317	14905												
		OBS	0300	0870	34975	2717					14905												
		OBS	0320	0758	34870	2725					14864												
		OBS	0335	0794	34990	2730					14882												
		OBS	0362	0628	34780	2736					14819												
		STD	0400	0635	3484	2740		0007450		0403	14828												
		OBS	0400	0635	34840	2740					14828												
		OBS	0410	0585	34825	2745					14810												
		OBS	0444	0647	34975	2749					14842												
		OBS	0464	0567	34902	2754					14813												
		OBS	0475	0593	34960	2755					14826												
		STD	0500	0553	3495	2759		0005741		0469	14813												
		OBS	0500	0553	34945	2759					14813												
		STD	0600	0525	3500	2767		0005119		0523	14819												
		OBS	0600	0525	34998	2767					14819												
		STD	0700	0478	3498	2771		0004782		0573	14816												
		OBS	0700	0478	34980	2771					14816												
		STD	0800	0455	3499	2774		0004549		0619	14824												
		OBS	0800	0455	34988	2774					14824												
		STD	0900	0428	3497	2775		0004454		0664	14829												
		OBS	0900	0428	34970	2775					14829												
		STD	1000	0414	3497	2777		0004395		0709	14840												
		OBS	1000	0414	34968	2777					14840												
		STD	1100	0399	3496	2778		0004363		0752	14850												
		OBS	1100	0399	34960	2778					14850												
		STD	1200	0400	3498	2779		0004328		0796	14867												
		OBS	1200	0400	34979	2779					14867												
		STD	1300	0401	3499	2780		0004352		0839	14885												
		OBS	1300	0401	34990	2780					14885												
		STD	1400	0389	3498	2780		0004361		0883	14896												
		OBS	1400	0389	34980	2780					14896												
		STD	1500	0383	3499	2781		0004334		0926	14911												
		OBS	1500	0383	34985	2781					14911												

REFERENCE CTRY CODE	IO. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DAY MO	YEAR	MARSOEN 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	OAT		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TRF		AMT
							10°	1°	MO	OAT		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TRF		AMT
318076		CC	43590N	045500W	149	35	04	11	157	1969	11P	10410		4034	15	24	1	2		X1	0	6	0038	
		WATER		WIND		AIR TEMP. °C		BARO- METER		DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS													
		DT	SD	18	S12	278	101	100	7	32														
MESSAGE TIME HR 1/10	CST NO.	CAPO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	S 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	0863	3458	2686	0011956	0000	14848															
157		OBS	0000	0863	34575	2686			14848															
		STD	0010	0866	3466	2692	0011427	0012	14852															
		OBS	0010	0866	34655	2692			14852															
		STD	0020	0920	3482	2697	0011015	0023	14876															
008		OBS	0020	0920	34824	2697			14876															
		STD	0030	0932	3484	2696	0011141	0034	14882															
		OBS	0030	0932	34835	2696			14882															
		STD	0050	1032	3507	2697	0011101	0056	14925															
		OBS	0050	1032	35065	2697			14925															
		STD	0075	1050	3511	2697	0011165	0084	14936															
		OBS	0075	1050	35105	2697			14936															
		STD	0100	1056	3511	2696	0011287	0112	14942															
		OBS	0100	1056	35110	2696			14942															
		STD	0125	0945	3487	2696	0011284	0140	14903															
		OBS	0125	0945	34870	2696			14903															
		OBS	0131	0900	34900	2706			14887															
		STD	0150	0910	3500	2712	0009821	0167	14895															
		OBS	0150	0910	35000	2712			14895															
		OBS	0160	0940	35070	2713			14909															
		STD	0200	0550	3454	2727	0008334	0212	14757															
		OBS	0200	0550	34540	2727			14757															
		OBS	0230	0637	34750	2733			14800															
		STD	0250	0611	3470	2732	0007963	0253	14792															
		OBS	0250	0611	34700	2732			14792															
		OBS	0295	0563	34780	2745			14781															
		STD	0300	0569	3479	2744	0006869	0290	14785															
		OBS	0300	0569	34785	2744			14785															
		OBS	0326	0629	34916	2747			14814															
		OBS	0345	0580	34900	2752			14798															
		OBS	0370	0570	34930	2756			14799															
		OBS	0390	0590	34960	2755			14810															
		STD	0400	0575	3492	2754	0006074	0355	14805															
		OBS	0400	0575	34920	2754			14805															
		STD	0500	0530	3500	2766	0005043	0410	14805															
		OBS	0500	0530	35000	2766			14805															
		STD	0600	0486	3500	2771	0004634	0459	14803															
		OBS	0600	0486	34998	2771			14803															
		STD	0700	0465	3500	2773	0004512	0504	14811															
		OBS	0700	0465	34995	2773			14811															
		STD	0800	0437	3498	2775	0004388	0549	14816															
		OBS	0800	0437	34980	2775			14816															
		STD	0900	0415	3497	2777	0004318	0592	14823															
		OBS	0900	0415	34967	2777			14823															
		STD	1000	0404	3497	2778	0004294	0635	14835															
		OBS	1000	0404	34965	2778			14835															
		STD	1100	0399	3497	2778	0004311	0678	14850															
		OBS	1100	0399	34967	2778			14850															
		STD	1200	0391	3497	2779	0004281	0721	14863															
		OBS	1200	0391	34970	2779			14863															
		STD	1300	0387	3497	2780	0004320	0764	14878															
		OBS	1300	0387	34970	2780			14878															
		STD	1400	0383	3497	2780	0004335	0808	14894															
		OBS	1400	0383	34973	2780			14894															
		STD	1500	0376	3498	2782	0004294	0851	14908															
		OBS	1500	0376	34978	2782			14908															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS 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		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076		CC	43526N	045098W		149	35	04	11	217	1969	IIP	10411		4491	15	24	1	4		X1	0	6	0039
						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	18	S05	268	092	092	7	30										

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 ₃ -N µg - at/l	NO ₃ -N µg - at/l	Si O ₂ -Si µg - at/l	pH	3 CO ₂
		STD	0000	0804	3432	2675	0012994	0000	14822								
217		OBS	0000	0804	34320	2675			14822								
		STD	0010	0775	3433	2680	0012567	0013	14813								
		OBS	0010	0775	34325	2680			14813								
		STD	0020	0773	3433	2681	0012519	0025	14813								
009		OBS	0020	0773	34330	2681			14813								
		STD	0030	0765	3434	2683	0012350	0038	14812								
		OBS	0030	0765	34340	2683			14812								
		STD	0050	0780	3442	2687	0012013	0062	14822								
		OBS	0050	0780	34418	2687			14822								
		STD	0075	0887	34711	2693	0011454	0091	14871								
		OBS	0075	0887	34711	2693			14871								
		STD	0100	1046	3513	2699	0010956	0119	14939								
		OBS	0100	1046	35132	2699			14939								
		OBS	0120	0825	34760	2707			14855								
		STD	0125	0855	3484	2708	0010111	0146	14869								
		OBS	0125	0855	34840	2708			14869								
		STD	0150	0700	3462	2714	0009576	0170	14810								
		OBS	0150	0700	34620	2714			14810								
		OBS	0157	0650	34610	2720			14791								
		STD	0200	0625	3472	2732	0007959	0214	14790								
		OBS	0200	0625	34715	2732			14790								
		STD	0250	0588	3477	2741	0007136	0252	14784								
		OBS	0250	0588	34772	2741			14784								
		OBS	0285	0523	34740	2746			14763								
		STD	0300	0633	3494	2748	0006573	0286	14812								
		OBS	0300	0633	34935	2748			14812								
		OBS	0332	0441	34710	2753			14737								
		OBS	0359	0556	34898	2755			14791								
		OBS	0375	0527	34905	2759			14782								
		STD	0400	0532	3492	2760	0005537	0347	14788								
		OBS	0400	0532	34920	2760			14788								
		STD	0500	0487	3495	2767	0004924	0399	14786								
		OBS	0500	0487	34945	2767			14786								
		STD	0600	0482	3499	2771	0004681	0447	14801								
		OBS	0600	0482	34985	2771			14801								
		STD	0700	0458	3498	2773	0004538	0493	14808								
		OBS	0700	0458	34980	2773			14808								
		STD	0800	0442	3498	2775	0004449	0538	14818								
		OBS	0800	0442	34980	2775			14818								
		STD	0900	0433	3499	2776	0004367	0582	14831								
		OBS	0900	0433	34990	2776			14831								
		STD	1000	0412	3500	2779	0004171	0625	14839								
		OBS	1000	0412	34995	2779			14839								
		STD	1100	0404	3498	2779	0004285	0667	14852								
		OBS	1100	0404	34979	2779			14852								
		STD	1200	0392	3497	2779	0004308	0710	14864								
		OBS	1200	0392	34968	2779			14864								
		STD	1300	0387	3498	2780	0004283	0753	14879								
		OBS	1300	0387	34975	2780			14879								
		STD	1400	0385	3498	2781	0004295	0796	14895								
		OBS	1400	0385	34982	2781			14895								
		STD	1500	0378	3499	2782	0004262	0839	14909								
		OBS	1500	0378	34986	2782			14909								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° ' 1/10	HOURS MINUTES	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
CRUISE NO.	IQ. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318076	CC					44241N	045304W	149	45	04		11	220			1969	IIP	10412	4052		15	24	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS.		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		7		35											
		DT	SD	19	S05	261	100	097	7	35													
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t 10 ³		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	SiO ₄ -Si μg - dl/l	pH	S CCT		
		STD	0000	0713	3420	2679		0012640		0000		14785											
	220	OBS	0000	0713	34200	2679						14785											
		STD	0010	0712	3420	2679		0012642		0013		14786											
		OBS	0010	0712	34200	2679						14786											
	010	STD	0020	0730	3426	2682		0012451		0025		14796											
		OBS	0020	0730	34260	2682						14796											
		STD	0030	0751	3433	2684		0012269		0038		14806											
		OBS	0030	0751	34325	2684						14806											
		STD	0050	0785	3443	2687		0011972		0062		14824											
		OBS	0050	0785	34433	2687						14824											
		STD	0075	0822	3455	2690		0011716		0091		14844											
		OBS	0075	0822	34545	2690						14844											
		OBS	0085	0877	34693	2693						14868											
		STD	0100	0842	3469	2699		0010981		0120		14858											
		OBS	0100	0842	34690	2699						14858											
		STD	0125	0660	3457	2715		0009402		0145		14790											
		OBS	0125	0660	34567	2715						14790											
		OBS	0143	0577	34460	2718						14758											
		STD	0150	0670	3468	2723		0008715		0168		14799											
		OBS	0150	0670	34682	2723						14799											
		OBS	0165	0680	34710	2724						14806											
		OBS	0170	0586	34580	2726						14768											
		STD	0200	0657	3473	2729		0008263		0210		14803											
		OBS	0200	0657	34730	2729						14803											
		OBS	0232	0511	34610	2737						14748											
		OBS	0245	0544	34680	2739						14764											
		STD	0250	0485	3458	2738		0007337		0249		14739											
		OBS	0250	0485	34580	2738						14739											
		OBS	0252	0456	34550	2739						14727											
		OBS	0262	0516	34680	2742						14756											
		OBS	0273	0483	34650	2744						14743											
		STD	0300	0536	3476	2746		0006651		0284		14771											
		OBS	0300	0536	34760	2746						14771											
		OBS	0329	0448	34686	2751						14739											
		OBS	0385	0564	34973	2760						14799											
		STD	0400	0545	3495	2760		0005474		0345		14794											
		OBS	0400	0545	34950	2760						14794											
		STD	0500	0504	3499	2768		0004811		0396		14794											
		OBS	0500	0504	34988	2768						14794											
		STD	0600	0487	3500	2771		0004631		0444		14804											
		OBS	0600	0487	35000	2771						14804											
		STD	0700	0471	3501	2773		0004504		0489		14814											
		OBS	0700	0471	35006	2773						14814											
		STD	0800	0448	3500	2776		0004374		0534		14821											
		OBS	0800	0448	35000	2776						14821											
		STD	0900	0435	3499	2776		0004377		0577		14832											
		OBS	0900	0435	34992	2776						14832											
		STD	1000	0424	3500	2778		0004282		0621		14844											
		OBS	1000	0424	35000	2778						14844											
		STD	1100	0404	3498	2779		0004292		0664		14852											
		OBS	1100	0404	34978	2779						14852											
		STD	1200	0399	3498	2779		0004308		0707		14867											
		OBS	1200	0399	34980	2779						14867											
		STD	1300	0391	3498	2780		0004275		0749		14880											
		OBS	1300	0391	34983	2780						14880											
		STD	1400	0383	3498	2781		0004284		0792		14894											
		OBS	1400	0383	34980	2781						14894											
		STD	1500	0379	3499	2782		0004245		0835		14909											
		OBS	1500	0379	34990	2782						14909											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR.1/10	MARSEEN 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.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT			
318076		CC	45243N	045461W	149 55 04 12 065	149	55	04	12	065		1969	IIP	10413	3462	15	24	1	4			X1	0	6	0041	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODES		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS												
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DT	SD	20	S10	230	09	09	6	35												
DT	SD	20	S10	230	09	09	6	35																		
MESSNGR 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	ST C						
065		STD	0000	0588	3405	2684	0012179		0000		14733															
		OBS	0000	0588	34052	2684					14733															
		STD	0010	0570	3403	2685	0012144		0012		14728															
		OBS	0010	0570	34030	2685					14728															
004		STD	0020	0507	3394	2685	0012118		0024		14702															
		OBS	0020	0507	33940	2685					14702															
		STD	0030	0550	3408	2691	0011563		0036		14723															
		OBS	0030	0550	34080	2691					14723															
		OBS	0040	0808	34620	2698					14834															
		STD	0050	0738	3452	2701	0010673		0058		14807															
		OBS	0050	0738	34520	2701					14807															
		OBS	0060	0898	34962	2711					14876															
		STD	0075	0821	3491	2719	0009030		0083		14848															
		OBS	0075	0821	34905	2719					14848															
		OBS	0098	0696	34840	2732					14803															
		STD	0100	0705	3495	2739	0007109		0103		14808															
		OBS	0100	0705	34950	2739					14808															
		OBS	0102	0750	35040	2740					14827															
		OBS	0119	0530	34765	2748					14739															
		STD	0125	0595	3487	2748	0006320		0120		14768															
		OBS	0125	0595	34870	2748					14768															
		OBS	0130	0650	34970	2748					14792															
		STD	0150	0645	3498	2750	0006170		0136		14793															
		OBS	0150	0645	34980	2750					14793															
		OBS	0171	0533	34910	2759					14751															
		OBS	0190	0589	35012	2760					14778															
		STD	0200	0545	3496	2761	0005141		0164		14761															
		OBS	0200	0545	34960	2761					14761															
		OBS	0219	0557	35000	2763					14769															
		STD	0250	0496	3496	2767	0004626		0188		14749															
		OBS	0250	0496	34960	2767					14749															
		OBS	0286	0402	34889	2772					14715															
		STD	0300	0406	3490	2772	0004164		0210		14719															
		OBS	0300	0406	34895	2772					14719															
		OBS	0340	0441	34980	2775					14741															
		STD	0400	0413	3495	2776	0003906		0251		14739															
		OBS	0400	0413	34953	2776					14739															
		STD	0500	0391	3495	2778	0003769		0289		14747															
		OBS	0500	0391	34952	2778					14747															
		STD	0600	0380	3495	2779	0003755		0327		14759															
		OBS	0600	0380	34950	2779					14759															
		STD	0700	0373	3495	2780	0003738		0364		14772															
		OBS	0700	0373	34954	2780					14772															
		STD	0800	0365	3495	2781	0003735		0401		14785															
		OBS	0800	0365	34954	2781					14785															
		STD	0900	0362	3496	2781	0003743		0439		14801															
		OBS	0900	0362	34960	2781					14801															
		STD	1000	0359	3497	2783	0003726		0476		14816															
		OBS	1000	0359	34969	2783					14816															
		STD	1100	0356	3498	2783	0003715		0513		14832															
		OBS	1100	0356	34977	2783					14832															
		STD	1200	0360	3499	2784	0003729		0551		14851															
		OBS	1200	0360	34993	2784					14851															
		STD	1300	0353	3499	2785	0003734		0588		14865															
		OBS	1300	0353	34992	2785					14865															
		STD	1400	0350	3500	2786	0003733		0625		14880															
		OBS	1400	0350	34998	2786					14880															
		STD	1500	0339	3500	2787	0003667		0662		14892															
		OBS	1500	0339	34999	2787					14892															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	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.						CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA	TYPE	AMT	
318076		CC	45268N	04631 W	149 56 04 12	092 1969	11P	10414	2992	15	28	2	1		X1	0 6	0042
		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												
DT	SD	18	S12	217	06	06	7	29									
MESSENGR TIME HR 1/10	CAST or NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-x10 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 ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S DO
		STD	0000	0329	3368	2683	0012273	0000	14621								
092		OBS	0000	0329	33683	2683			14621								
		STD	0010	0333	3369	2683	0012285	0012	14624								
		OBS	0010	0333	33687	2683			14624								
		STD	0020	0354	3371	2683	0012307	0025	14635								
005		OBS	0020	0354	33710	2683			14635								
		STD	0030	0400	3380	2685	0012072	0037	14657								
		OBS	0030	0400	33800	2685			14657								
		OBS	0040	0470	33940	2689			14690								
		STD	0050	0398	3396	2698	0010865	0060	14662								
		OBS	0050	0398	33960	2698			14662								
		OBS	0070	0605	34480	2716			14757								
		STD	0075	0585	3450	2720	0008891	0084	14750								
		OBS	0075	0585	34500	2720			14750								
		STD	0100	0553	3459	2731	0007892	0105	14743								
		OBS	0100	0553	34587	2731			14743								
		STD	0125	0492	3464	2742	0006840	0124	14723								
		OBS	0125	0492	34638	2742			14723								
		OBS	0139	0485	34670	2745			14722								
		STD	0150	0496	3473	2748	0006263	0140	14730								
		OBS	0150	0496	34725	2748			14730								
		OBS	0158	0507	34763	2750			14736								
		OBS	0170	0491	34773	2753			14731								
		STD	0200	0505	3488	2759	0005282	0169	14743								
		OBS	0200	0505	34878	2759			14743								
		STD	0250	0502	3493	2764	0004897	0194	14751								
		OBS	0250	0502	34933	2764			14751								
		STD	0300	0478	3497	2769	0004439	0218	14750								
		OBS	0300	0478	34965	2769			14750								
		STD	0400	0423	3495	2774	0004076	0260	14743								
		OBS	0400	0423	34945	2774			14743								
		STD	0500	0393	3494	2777	0003895	0300	14747								
		OBS	0500	0393	34938	2777			14747								
		STD	0600	0391	3495	2778	0003870	0339	14763								
		OBS	0600	0391	34951	2778			14763								
		STD	0700	0383	3496	2779	0003843	0378	14776								
		OBS	0700	0383	34955	2779			14776								
		STD	0800	0382	3497	2780	0003848	0416	14793								
		OBS	0800	0382	34955	2780			14793								
		STD	0900	0370	3496	2780	0003872	0455	14804								
		OBS	0900	0370	34955	2780			14804								
		STD	1000	0364	3496	2781	0003851	0493	14818								
		OBS	1000	0364	34960	2781			14818								
		STD	1100	0361	3497	2782	0003841	0532	14834								
		OBS	1100	0361	34968	2782			14834								
		STD	1200	0358	3498	2783	0003837	0570	14850								
		OBS	1200	0358	34975	2783			14850								
		STD	1300	0353	3498	2784	0003822	0608	14864								
		OBS	1300	0353	34980	2784			14864								
		STD	1400	0352	3499	2784	0003854	0647	14881								
		OBS	1400	0352	34985	2784			14881								
		STD	1500	0343	3499	2786	0003762	0685	14894								
		OBS	1500	0343	34993	2786			14894								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO/10	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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318076	CC	4530 N	04711 W	149	57	04	12	127	1969	11P	10415	2314	15	24	2	2			X1	0	6		0043
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIR. CODE	NO. OBS. OBTNS	SPECIAL OBSERVATIONS
COLOR CODE	TRANSL (m)	OIL	SPEED OR FORCE		DRY RULR	WET BULB			

DT	SD	19	517	210	086	086	7	29	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ 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 ₂ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	C

127		STD	0000	0542	3396	2682	0012335	0000	14714								
		OBS	0000	0542	33960	2682			14714								
		STD	0010	0538	3396	2683	0012339	0012	14713								
		OBS	0010	0538	33955	2683			14713								
		STD	0020	0538	3399	2685	0012088	0025	14716								
005		OBS	0020	0538	33990	2685			14716								
		STD	0030	0570	3406	2687	0011945	0037	14731								
		OBS	0030	0570	34060	2687			14731								
		STD	0050	0611	3413	2687	0011923	0060	14752								
		OBS	0050	0611	34132	2687			14752								
		STD	0075	0700	3435	2693	0011467	0090	14794								
		OBS	0075	0700	34350	2693			14794								
		STD	0100	0538	3444	2720	0008853	0115	14735								
		OBS	0100	0538	34435	2720			14735								
		STD	0125	0468	3449	2733	0007706	0136	14711								
		OBS	0125	0468	34487	2733			14711								
		STD	0150	0452	3456	2740	0007050	0154	14709								
		OBS	0150	0452	34555	2740			14709								
		OBS	0168	0494	34675	2745			14731								
		OBS	0180	0475	34670	2746			14725								
		STD	0200	0530	3487	2756	0005634	0186	14754								
		OBS	0200	0530	34870	2756			14754								
		OBS	0225	0504	34880	2760			14747								
		STD	0250	0550	3498	2762	0005118	0213	14771								
		OBS	0250	0550	34980	2762			14771								
		OBS	0254	0564	35000	2762			14778								
		STD	0300	0489	3494	2766	0004753	0237	14754								
		OBS	0300	0489	34940	2766			14754								
		STD	0400	0479	3500	2772	0004342	0283	14767								
		OBS	0400	0479	34995	2772			14767								
		STD	0500	0427	3496	2775	0004111	0325	14762								
		OBS	0500	0427	34960	2775			14762								
		STD	0600	0412	3497	2777	0003989	0366	14772								
		OBS	0600	0412	34967	2777			14772								
		OBS	0620	0425	34985	2777			14781								
		STD	0700	0408	3498	2778	0003944	0405	14787								
		OBS	0700	0408	34980	2778			14787								
		STD	0800	0400	3498	2779	0003932	0445	14801								
		OBS	0800	0400	34982	2779			14801								
		STD	0900	0379	3497	2780	0003903	0484	14808								
		OBS	0900	0379	34965	2780			14808								
		STD	1000	0370	3496	2781	0003922	0523	14821								
		OBS	1000	0370	34960	2781			14821								
		STD	1100	0376	3498	2782	0003941	0562	14841								
		OBS	1100	0376	34979	2782			14841								
		STD	1200	0374	3499	2782	0003960	0602	14856								
		OBS	1200	0374	34985	2782			14856								
		STD	1300	0366	3499	2783	0003909	0641	14870								
		OBS	1300	0366	34990	2783			14870								
		STD	1400	0362	3500	2784	0003906	0680	14885								
		OBS	1400	0362	34995	2784			14885								
		STD	1500	0352	3499	2785	0003876	0719	14898								
		OBS	1500	0352	34993	2785			14898								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE DDMMYY INDIC	MARS SQUARE 10° 1°	STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER			
CRUISE NO.	IQ. NO.						MO	DAY		HR.	1/10			CRUISE NO.	STATION NUMBER	DIR.		HGT	PER		SEA	TYPE	AMT
318076	CC		45333N	047571W	149	57	04	12	143	1969	11P	10417	1264	12	19	1	3		X2	0	6		0044

WATER	WIND	BARO-	AIR TEMP. °C	NO.	SPECIAL
COLOR	TRANS.	SPEED	DRY	DRY	NO.
CODE	IMT	OR	BULB	BULB	DEPTHS
DT	SD	19	526	179	08
					07
					7
					24

MESSNGR	CAST	CARD	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	Si O ₄ -Si	pH	S
TIME	NO.	TYPE					ANOMALY-2107	DYN. M.	VELOCITY		μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l		C
HR 1/10								X 10 ³									
		STD	0000	0065	3329	2671	0013373	0000	14499								
143		OBS	0000	0065	33290	2671			14499								
		STD	0010	0050	3342	2683	0012302	0013	14495								
		OBS	0010	0050	33420	2683			14495								
		STD	0020	0033	3354	2693	0011298	0025	14491								
004		OBS	0020	0033	33540	2693			14491								
		STD	0030	0056	3362	2698	0010847	0036	14504								
		OBS	0030	0056	33615	2698			14504								
		STD	0050	0077	3384	2715	0009253	0056	14520								
		OBS	0050	0077	33840	2715			14520								
		STD	0075	0100	3394	2722	0008633	0078	14536								
		OBS	0075	0100	33940	2722			14536								
		STD	0100	0165	3411	2731	0007784	0099	14571								
		OBS	0100	0165	34110	2731			14571								
		STD	0125	0205	3433	2745	0006428	0116	14596								
		OBS	0125	0205	34330	2745			14596								
		STD	0150	0233	3441	2749	0006059	0132	14614								
		OBS	0150	0233	34410	2749			14614								
		STD	0200	0335	3464	2759	0005267	0160	14669								
		OBS	0200	0335	34640	2759			14669								
		OBS	0225	0475	34900	2765			14736								
		STD	0250	0440	3487	2766	0004667	0185	14725								
		OBS	0250	0440	34870	2766			14725								
		OBS	0255	0434	34880	2768			14723								
		STD	0300	0465	3497	2771	0004261	0208	14745								
		OBS	0300	0465	34969	2771			14745								
		STD	0400	0395	3492	2775	0003956	0249	14731								
		OBS	0400	0395	34920	2775			14731								
		STD	0500	0394	3494	2777	0003891	0288	14748								
		OBS	0500	0394	34940	2777			14748								
		STD	0600	0391	3495	2778	0003878	0327	14763								
		OBS	0600	0391	34950	2778			14763								
		STD	0700	0384	3496	2779	0003854	0365	14777								
		OBS	0700	0384	34955	2779			14777								
		STD	0800	0378	3496	2779	0003876	0404	14791								
		OBS	0800	0378	34955	2779			14791								
		STD	0900	0374	3495	2780	0003941	0443	14806								
		OBS	0900	0374	34952	2780			14806								
		STD	1000	0368	3496	2780	0003936	0482	14820								
		OBS	1000	0368	34955	2780			14820								
		STD	1100	0362	3495	2781	0003972	0522	14834								
		OBS	1100	0362	34952	2781			14834								
		STD	1200	0373	3498	2782	0003984	0562	14856								
		OBS	1200	0373	34980	2782			14856								
		OBS	1240	0361	34970	2782			14858								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH CODE	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- TH- ER CODE	CLOUD CODES		NOCC STATION NUMBER
CRUISE CODE	IO, NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318	1076	CC	45327N	047407W	149	57	04	12	153	1969	11P	10416	1549	15	24	2	3		X1	0	6	0045	

318076	CC		45327N	047407W	149	57	04	12	153	1969	11P	10416		1549	15	24	2	3		X1	0	6		0045
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WATER		WIND		AIR TEMP. °C		BARO-METER		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS	
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB		
DT	SD	18	S18	196	08	08	7	31					

MESSAGE	CAST	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	S 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.C.
TIME OF	NO.	TYPE															
HR 1/10																	
	153	STD	0000	0160	3356	2687	0011917	0000	14545								
		OBS	0000	0160	33557	2687			14545								
		STD	0010	0157	3355	2686	0011990	0012	14545								
		OBS	0010	0157	33545	2686			14545								
	004	STD	0020	0150	3357	2688	0011793	0024	14544								
		OBS	0020	0150	33565	2688			14544								
		STD	0030	0163	3361	2691	0011541	0036	14552								
		OBS	0030	0163	33610	2691			14552								
		STD	0050	0159	3378	2705	0010244	0057	14556								
		OBS	0050	0159	33778	2705			14556								
		OBS	0058	0125	33893	2716			14544								
		STD	0075	0155	3410	2731	0007782	0080	14563								
		OBS	0075	0155	34100	2731			14563								
		STD	0100	0402	3450	2741	0006891	0098	14679								
		OBS	0100	0402	34500	2741			14679								
		STD	0125	0480	3466	2745	0006579	0115	14718								
		OBS	0125	0480	34655	2745			14718								
		OBS	0139	0469	34690	2749			14716								
		STD	0150	0493	3478	2753	0005818	0131	14729								
		OBS	0150	0493	34780	2753			14729								
		STD	0200	0527	3490	2759	0005374	0158	14753								
		OBS	0200	0527	34900	2759			14753								
		OBS	0232	0532	34942	2761			14761								
		STD	0250	0487	3492	2765	0004821	0184	14745								
		OBS	0250	0487	34920	2765			14745								
		OBS	0285	0450	34920	2769			14735								
		OBS	0292	0452	34925	2769			14737								
		STD	0300	0449	3494	2770	0004335	0207	14738								
		OBS	0300	0449	34935	2770			14738								
		STD	0400	0418	3495	2775	0003983	0248	14741								
		OBS	0400	0418	34950	2775			14741								
		OBS	0440	0404	34940	2776			14742								
		OBS	0476	0419	34960	2776			14754								
		STD	0500	0405	3495	2776	0003938	0288	14752								
		OBS	0500	0405	34950	2776			14752								
		STD	0600	0384	3494	2778	0003852	0327	14760								
		OBS	0600	0384	34943	2778			14760								
		STD	0700	0393	3497	2779	0003845	0365	14781								
		OBS	0700	0393	34970	2779			14781								
		STD	0800	0383	3496	2780	0003875	0404	14793								
		OBS	0800	0383	34963	2780			14793								
		STD	0900	0378	3495	2779	0003980	0443	14808								
		OBS	0900	0378	34953	2779			14808								
		STD	1000	0365	3495	2780	0003959	0483	14819								
		OBS	1000	0365	34947	2780			14819								
		STD	1100	0364	3496	2781	0003944	0523	14835								
		OBS	1100	0364	34959	2781			14835								
		STD	1200	0361	3497	2782	0003948	0562	14851								
		OBS	1200	0361	34965	2782			14851								
		STD	1300	0360	3497	2783	0003960	0602	14867								
		OBS	1300	0360	34973	2783			14867								
		STD	1400	0356	3498	2784	0003941	0641	14882								
		OBS	1400	0356	34980	2784			14882								
		STD	1500	0354	3499	2784	0003960	0681	14898								
		OBS	1500	0354	34985	2784			14898								

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 S'PL'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	
318076		CC	45350N	048080W		149	58	04	12	190	1969	IIP	10418	0832	08	21	3	3		X2	0 6	0046
						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									
						DT	SD	19	S20	173	05	05	7	20								
MESSNGR 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 - 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	SCC		
		STD	0000	0015	3314	2662		0014304		0000		14474										
	190	OBS	0000	0015	33135	2662						14474										
		STD	0010	0015	3314	2662		0014301		0014		14476										
		OBS	0010	0015	33135	2662						14476										
		STD	0020	0013	3314	2662		0014289		0029		14476										
	003	OBS	0020	0013	33135	2662						14476										
		STD	0030	0013	3314	2662		0014287		0043		14478										
		OBS	0030	0013	33135	2662						14478										
		OBS	0044	0013	33132	2662						14480										
		STD	0050	-0021	3312	2662		0014210		0071		14465										
		OBS	0050	-0021	33124	2662						14465										
		OBS	0068	0011	33360	2680						14486										
		STD	0075	0001	3340	2684		0012197		0104		14484										
		OBS	0075	0001	33400	2684						14484										
		STD	0100	0060	3392	2722		0008546		0130		14522										
		OBS	0100	0060	33920	2722						14522										
		STD	0125	0092	3402	2728		0007981		0151		14542										
		OBS	0125	0092	34020	2728						14542										
		STD	0150	0132	3414	2735		0007376		0170		14565										
		OBS	0150	0132	34135	2735						14565										
		STD	0200	0196	3434	2747		0006314		0204		14605										
		OBS	0200	0196	34340	2747						14605										
		STD	0250	0245	3449	2755		0005610		0234		14637										
		OBS	0250	0245	34490	2755						14637										
		STD	0300	0310	3466	2763		0004954		0261		14675										
		OBS	0300	0310	34660	2763						14675										
		STD	0400	0363	3479	2768		0004611		0308		14716										
		OBS	0400	0363	34787	2768						14716										
		STD	0500	0380	3483	2769		0004558		0354		14740										
		OBS	0500	0380	34830	2769						14740										
		STD	0600	0389	3487	2771		0004488		0400		14761										
		OBS	0600	0389	34865	2771						14761										
		STD	0700	0398	3493	2775		0004207		0443		14782										
		OBS	0700	0398	34929	2775						14782										
		STD	0800	0398	3494	2776		0004257		0485		14799										
		OBS	0800	0398	34935	2776						14799										
		OBS	0810	0397	34939	2776						14800										

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY ROSTER	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
CRUISE CODE	IO. NO.					MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER		DIR.	HGT			PER	SEA	TYPE		AMT		
318076	CC	45359N	048259W	149	58	04	12	220	1969	IIP	10419	0154	01	21	3	3		X1	0	6		0047
						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									
						DT	SD	20	S21	166	06	06	7	10								
MESSNGR 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	SCC					
		STD	0000	0020	3191	2563	0023700	0000	14459													
	220	OBS	0000	0020	31908	2563			14459													
		STD	0010	0037	3264	2621	0018185	0021	14479													
		OBS	0010	0037	32640	2621			14479													
		STD	0020	0068	3340	2680	0012550	0036	14505													
	002	OBS	0020	0068	33400	2680			14505													
		STD	0030	0072	3342	2682	0012420	0049	14509													
		OBS	0030	0072	33420	2682			14509													
		OBS	0036	0075	33455	2684			14512													
		STD	0050	0037	3338	2680	0012534	0074	14496													
		OBS	0050	0037	33380	2680			14496													
		STD	0075	0013	3350	2691	0011463	0104	14490													
		OBS	0075	0013	33504	2691			14490													
		STD	0100	0012	3343	2686	0012017	0133	14493													
		OBS	0100	0012	33430	2686			14493													
		STD	0125	0013	3349	2690	0011560	0163	14499													
		OBS	0125	0013	33490	2690			14499													
		OBS	0135	0017	33560	2696			14503													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH FATHOMS	MARS DEN SQUARE	STATION TIME ICMTI				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	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	
31	8076	CC	45 377N	04838 W		149 58	04	13	012	1969	IIP	10420	0082	01	20	1	2		X1	0	6		0048

318076 CC 45377N 04838 W 149 58 04 13 012 1969 IIP 10420 0082 01 20 1 2 X1 0 6 0048

WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			

DT SD 19 S15 176 04 04 6 06

MESSAGE TIME HR 1/10	CAS- 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 $\mu\text{g} \cdot \text{dl/l}$	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	3 CC
		STD	0000	0094	3288	2636	0016695	0000	14506								
012		OBS	0000	0094	32875	2636			14506								
		STD	0010	0094	3288	2636	0016694	0017	14508								
		OBS	0010	0094	32875	2636			14508								
		STD	0020	0094	3288	2636	0016694	0033	14510								
002		OBS	0020	0094	32875	2636			14510								
		STD	0030	0032	3298	2648	0015561	0050	14484								
		OBS	0030	0032	32980	2648			14484								
		STD	0050	0004	3321	2668	0013652	0079	14478								
		OBS	0050	0004	33212	2668			14478								
		STD	0075	-0002	3342	2685	0012068	0111	14482								
		OBS	0075	-0002	33415	2685			14482								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH FATHOMS	MARS DEN 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
CTRY CODE	ID. NO.						10"	1"	MO	DAY		HR.	1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA	
318	076	CC	46592N	048278W	149	68	04	13	110	1969	11P	10421	0109	00	23	2	3		X2	0	3		0049

318076 CC 46592N 048278W 149 68 04 13 110 1969 IIP 10421 0109 00 23 2 3 X2 0 3 0049

WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			

DT SD 35 S12 200 020 020 7 09

MESSAGE TIME HR 1/10	CAS- 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 $\mu\text{g} \cdot \text{dl/l}$	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	3 CC
		STD	0000	0093	3281	2631	0017184	0000	14505								
110		OBS	0000	0093	3281	2631			14505								
		OBS	0005	0093	3281	2631			14506								
		STD	0010	0093	3281	2631	0017183	0017	14507								
000		OBS	0010	0093	3281	2631			14507								
		OBS	0015	0093	3282	2632			14507								
		STD	0020	0093	3282	2632	0017107	0034	14508								
		OBS	0020	0093	3282	2632			14508								
		OBS	0025	0092	3282	2632			14509								
		STD	0030	0089	3282	2632	0017083	0051	14508								
		OBS	0030	0089	3282	2632			14508								
		OBS	0038	0089	3283	2633			14510								
		STD	0050	0062	3288	2639	0016475	0085	14500								
		OBS	0050	0062	3288	2639			14500								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WAVE METER 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	
CITY CODE	IO. NO.					10°	1°	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318076	CC	46594N	048135W	149	68	04	13	125	1969	IIP	10422	0121	01	23	3	3			X2	0	3		0050	
						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												
						DT	SD	35	S11	210	020	020	7	10										
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C						
		STD	0000	0054	3289	2640	0016365		0000	14488														
125		OBS	0000	0054	3289	2640				14488														
		OBS	0005	0054	3289	2640				14489														
		STD	0010	0051	3289	2640	0016348		0016	14489														
000		OBS	0010	0051	3289	2640				14489														
		OBS	0015	0046	3291	2642				14487														
		STD	0020	0045	3292	2643	0016086		0033	14488														
		OBS	0020	0045	3292	2643				14488														
		OBS	0025	0045	3292	2643				14489														
		STD	0030	0045	3292	2643	0016084		0049	14490														
		OBS	0030	0045	3292	2643				14490														
		OBS	0038	0044	3292	2643				14490														
		STD	0050	0030	3294	2645	0015852		0081	14486														
		OBS	0050	0030	3294	2645				14486														
		OBS	0056	0023	3297	2648				14485														

REFERENCE CITY CODE	SHIP CODE	LATITUDE °	LONGITUDE °	DEPTH METER	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 (mbars)	DRY BULB		WET BULB	VIS. CODE			NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						

318076	CC	47006N	048018W		149	78	04	13	135	1969	IIP	10423		0140	01	23	3	3		X2	0	3		0051
					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													
					DT	SD	34	S11	217	020	020	7	09											
MESSINGR TIME HR 1/10	CAS 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C							
		STD	0000	0052	3288	2639		0016431	0000	14487														
135		OBS	0000	0052	3288	2639				14487														
		OBS	0005	0051	3288	2639				14488														
		STD	0010	0048	3289	2640	0016332	0016		14487														
000		OBS	0010	0048	3289	2640				14487														
		OBS	0015	0047	3290	2641				14488														
		STD	0020	0046	3291	2642	0016168	0033		14488														
		OBS	0020	0046	3291	2642				14488														
		OBS	0025	0046	3292	2643				14489														
		STD	0030	0044	3292	2643	0016079	0049		14489														
		OBS	0030	0044	3292	2643				14489														
		OBS	0038	0038	3292	2643				14488														
		STD	0050	0023	3292	2644	0015970	0081		14483														
		OBS	0050	0023	3292	2644				14483														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WMO INDIC	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		
CTRY CODE	IO. NO.						10'	1'	MO	DAY		HR,1/10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318076	CC		47000N	047450W		149	77	04	13	150	1969	11P	10424		0177	01	23	2	2		X2	0	3	0052
							WATER		WIND				BARO- METER		AIR TEMP. °C									
							COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE			DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
							DT	SD	32	S13	217	040	040	7	12									

MESSNGR 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 $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₂ -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	S C C
		STD	0000	0047	3281	2634	0016939	0000	14484								
150		OBS	0000	0047	3281	2634			14484								
		OBS	0005	0046	3281	2634			14484								
		STD	0010	0042	3282	2635	0016836	0017	14484								
002		OBS	0010	0042	3282	2635			14484								
		OBS	0015	0042	3282	2635			14484								
		STD	0020	0041	3284	2637	0016676	0034	14485								
		OBS	0020	0041	3284	2637			14485								
		OBS	0025	0043	3284	2637			14487								
		STD	0030	0043	3284	2637	0016684	0050	14488								
		OBS	0030	0043	3284	2637			14488								
		OBS	0038	0039	3285	2638			14487								
		STD	0050	0008	3293	2646	0015822	0083	14476								
		OBS	0050	0008	3293	2646			14476								
		OBS	0062	0005	3312	2661			14479								
		STD	0075	0002	3324	2671	0013422	0119	14482								
		OBS	0075	0002	3324	2671			14482								
		OBS	0080	0003	3329	2675			14484								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WMO INDIC	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		
CTRY CODE	IO. NO.						10'	1'	MO	DAY		HR,1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT	
318076	CC		46595N	047300W		149	67	04	13	162	1969	11P	10425		0208	01	24	2	2		X2	0	3	0053	
							WATER		WIND				AIR TEMP. °C												
							COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO- METER (mb)	DRY TEMP. °C		WET TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
							DT	SD	34	S15	213	020	020	7	12										

MESSNGR 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 $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₂ -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	S C C
		STD	0000	0027	3294	2645	0015849	0000	14477								
162		OBS	0000	0027	3294	2645			14477								
		OBS	0005	0025	3294	2645			14477								
		STD	0010	0025	3294	2645	0015837	0016	14477								
002		OBS	0010	0025	3294	2645			14477								
		OBS	0015	0025	3294	2645			14478								
		STD	0020	0025	3294	2645	0015835	0032	14479								
		OBS	0020	0025	3294	2645			14479								
		OBS	0025	0017	3294	2646			14476								
		STD	0030	0015	3297	2648	0015555	0047	14477								
		OBS	0030	0015	3297	2648			14477								
		OBS	0038	0012	3298	2649			14477								
		STD	0050	0005	3311	2660	0014435	0077	14477								
		OBS	0050	0005	3311	2660			14477								
		OBS	0062	0006	3317	2665			14481								
		STD	0075	0005	3334	2679	0012674	0111	14485								
		OBS	0075	0005	3334	2679			14485								
		STD	0100	0062	3364	2700	0010687	0140	14519								
		OBS	0100	0062	3364	2700			14519								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT MDCR	MARSDEN 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
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318076		CC	47000N	047130W		149	77	04	13	180		1969	IIP	10426	0342	02	24	2	2		X2	0	3	0054
						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	34	S12		217	040					040	7	18					
MESSAGE TIME NR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta O$ DTN. M. x 10 ³		SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	SIO ₄ -Si $\mu g - ml/l$	pH	1 C					
160		STD	0000	0014	3306	2656	0014872		0000		14472													
		OBS	0000	0014	3306	2656					14472													
003		OBS	0005	0013	3305	2655					14473													
		STD	0010	0013	3305	2655	0014941		0015		14473													
		OBS	0010	0013	3305	2655					14473													
		OBS	0015	0013	3306	2656					14474													
		STD	0020	0008	3301	2652	0015220		0030		14472													
		OBS	0020	0008	3301	2652					14472													
		OBS	0025	0003	3307	2657					14472													
		STD	0030	0002	3308	2658	0014655		0045		14472													
		OBS	0030	0002	3308	2658					14472													
		OBS	0038	0001	3310	2660					14473													
		STD	0050	0005	3334	2679	0012680		0072		14480													
		OBS	0050	0005	3334	2679					14480													
		OBS	0053	0028	3354	2694					14494													
		OBS	0060	0016	3346	2688					14489													
		OBS	0062	0022	3356	2696					14493													
		OBS	0063	0026	3361	2699					14496													
		STD	0075	0036	3374	2709	0009784		0100		14504													
		OBS	0075	0036	3374	2709					14504													
		STD	0100	0077	3389	2719	0008874		0124		14529													
		OBS	0100	0077	3389	2719					14529													
		STD	0125	0140	3410	2732	0007691		0144		14564													
		OBS	0125	0140	3410	2732					14564													
		STD	0150	0180	3421	2738	0007154		0163		14588													
		OBS	0150	0180	3421	2738					14588													
		OBS	0165	0212	3430	2742					14606													

REFERENCE CITY CODE	SHIP CODE	LATITUDE °	LONGITUDE °	DATE MO/DA/YR	MARSOEN 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			DIA	HGT	PER	SEA		TYPE	AMT	

318076	CC	46590N	046598W	149	66	04	13	193	1969	IIP	10427	1070	05	24	2	2	X2	0	3			0055
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WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE	SARCO- METER (mb)	DRY BULB	WET BULB		

DT	SD	35	S12	217	008	008	7	22
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MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-30°	Σ Δ σ QYN, 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	Si O ₄ -Si μg - at/l	pH	SC
		STD	0000	0059	3328	2671	0013417	0000	14496								
193		OBS	0000	0059	3328	2671			14496								
		OBS	0005	0058	3328	2671			14496								
		STD	0010	0058	3329	2672	0013335	0013	14497								
004		OBS	0010	0058	3329	2672			14497								
		OBS	0015	0053	3330	2673			14496								
		STD	0020	0057	3336	2678	0012795	0026	14499								
		OBS	0020	0057	3336	2678			14499								
		OBS	0025	0058	3340	2681			14501								
		STD	0030	0063	3346	2685	0012065	0039	14505								
		OBS	0030	0063	3346	2685			14505								
		OBS	0038	0091	3374	2706			14523								
		STD	0050	0110	3378	2708	0009908	0061	14534								
		OBS	0050	0110	3378	2708			14534								
		OBS	0062	0138	3391	2717			14550								
		STD	0075	0144	3394	2719	0008919	0084	14556								
		OBS	0075	0144	3394	2719			14556								
		STD	0100	0171	3411	2730	0007827	0105	14574								
		OBS	0100	0171	3411	2730			14574								
		STD	0125	0223	3435	2745	0006419	0123	14604								
		OBS	0125	0223	3435	2745			14604								
		STD	0150	0276	3449	2752	0005820	0138	14634								
		OBS	0150	0276	3449	2752			14634								
		STD	0200	0333	3464	2759	0005248	0166	14668								
		OBS	0200	0333	3464	2759			14668								
		STD	0250	0343	3466	2759	0005234	0192	14681								
		OBS	0250	0343	3466	2759			14681								
		STD	0300	0366	3472	2762	0005056	0218	14700								
		OBS	0300	0366	3472	2762			14700								
		OBS	0350	0395	3480	2765			14721								
		STD	0400	0410	3485	2768	0004642	0267	14737								
		OBS	0400	0410	3485	2768			14737								
		OBS	0450	0414	3487	2769			14747								
		STD	0500	0416	3488	2770	0004583	0313	14756								
		OBS	0500	0416	3488	2770			14756								
		OBS	0525	0416	3489	2770			14760								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT CODE	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			
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR./10			CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT				
318076		CC	47008N	046409W		149	76	04	13	212	1969	IIP	10428	1154	06	24	2	3		X2	0	3	0056				
						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	33	S12	220		014	014	7	24												
MESSAGE TIME HR 1/10	CST ND.	CARD TYPE	DEPTN (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ D OYN. M. x 10 ³	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P μg - dl/l	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	Si D ₄ -Si μg - dl/l	pH										
		STD	0000	0077	3338	2678	0012753		0000	14506																	
212		OBS	0000	0077	3338	2678				14506																	
		OBS	0005	0077	3338	2678				14506																	
		STD	0010	0077	3338	2678	0012753		0013	14507																	
004		OBS	0010	0077	3338	2678				14507																	
		OBS	0015	0075	3338	2678				14507																	
		STD	0020	0071	3337	2678	0012795		0026	14506																	
		OBS	0020	0071	3337	2678				14506																	
		OBS	0025	0123	3373	2703				14535																	
		STD	0030	0145	3380	2707	0009978		0037	14547																	
		OBS	0030	0145	3380	2707				14547																	
		OBS	0038	0147	3385	2711				14550																	
		STD	0050	0146	3387	2713	0009458		0056	14551																	
		OBS	0050	0146	3387	2713				14551																	
		OBS	0062	0169	3394	2717				14565																	
		STD	0075	0191	3402	2722	0008646		0079	14578																	
		OBS	0075	0191	3402	2722				14578																	
		STD	0100	0249	3430	2739	0006994		0099	14611																	
		OBS	0100	0249	3430	2739				14611																	
		STD	0125	0341	3456	2752	0005866		0115	14658																	
		OBS	0125	0341	3456	2752				14658																	
		STD	0150	0386	3468	2757	0005425		0129	14683																	
		OBS	0150	0386	3468	2757				14683																	
		STD	0200	0403	3482	2766	0004596		0154	14700																	
		OBS	0200	0403	3482	2766				14700																	
		STD	0250	0404	3486	2769	0004356		0176	14710																	
		OBS	0250	0404	3486	2769				14710																	
		STD	0300	0403	3487	2770	0004319		0198	14718																	
		OBS	0300	0403	3487	2770				14718																	
		OBS	0350	0397	3488	2772				14723																	
		STD	0400	0393	3488	2772	0004233		0241	14730																	
		OBS	0400	0393	3488	2772				14730																	
		OBS	0450	0392	3489	2773				14738																	
		STD	0500	0399	3491	2774	0004170		0283	14749																	
		OBS	0500	0399	3491	2774				14749																	
		OBS	0535	0392	3490	2774				14752																	
		OBS	0550	0398	3491	2774				14757																	
		OBS	0565	0399	3491	2774				14760																	

REFERENCE CITY CODE	IO. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS 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.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318076		CC	4701 N	04632 W	149 76	04	13	230	1969	IIP	10429	0450	02	24	2	3			X2	0	3		0057
		WATER		WIND		BARO- METER (mba)		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE			DRY BULB		WET BULB													
		DT	SD	35	S10	230		020		020		7		18									
MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-210°		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					
✓			STD	0000	0347	3369	2682		0012381		0000	14628											
	230		OBS	0000	0347	3369	2682					14628											
			OBS	0005	0347	3369	2682					14629											
			STD	0010	0347	3369	2682		0012388		0012	14630											
	004		OBS	0010	0347	3369	2682					14630											
			OBS	0015	0346	3369	2682					14631											
			STD	0020	0346	3370	2683		0012310		0025	14631											
			OBS	0020	0346	3370	2683					14631											
			OBS	0025	0333	3369	2683					14627											
			STD	0030	0311	3369	2685		0012082		0037	14618											
			OBS	0030	0311	3369	2685					14618											
			OBS	0038	0328	3372	2686					14627											
			STD	0050	0323	3371	2686		0012049		0061	14627											
			OBS	0050	0323	3371	2686					14627											
			OBS	0055	0343	3392	2701					14639											
			OBS	0062	0308	3400	2710					14626											
			STD	0075	0351	3424	2725		0008328		0087	14650											
			OBS	0075	0351	3424	2725					14650											
			STD	0100	0387	3442	2736		0007342		0106	14672											
			OBS	0100	0387	3442	2736					14672											
			STD	0125	0404	3457	2746		0006409		0123	14685											
			OBS	0125	0404	3457	2746					14685											
			STD	0150	0421	3469	2754		0005709		0138	14698											
			OBS	0150	0421	3469	2754					14698											
			OBS	0173	0436	3481	2762					14710											
			STD	0200	0416	3485	2767		0004508		0164	14706											
			OBS	0200	0416	3485	2767					14706											
			OBS	0212	0427	3486	2767					14713											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS SQUARE INDICH	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	
CITY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318076		CC	47010N	046120W	149	76	04	14	006	1969	IIP	10430	0309	01	24	2	4		X1	0	3		0058	
		WATER		WIND		AIR TEMP. °C		BARO- METER (mba)		DRY BULB		WET BULB		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
		COLOR CODE	TRANS. INT	DIR.	SPEED OR FORCE																			
		DT	SD	36	S12	227		020		020		7		14										
MESSAGE TIME HR. 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-210°		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						
	006	STD	0000	0449	3382	2682		0012384		0000	14673													
		OBS	0000	0449	3382	2682					14673													
		OBS	0005	0449	3382	2682					14674													
	003	STD	0010	0449	3382	2682		0012393		0012	14675													
		OBS	0010	0449	3382	2682					14675													
		OBS	0015	0449	3382	2682					14676													
		STD	0020	0449	3382	2682		0012402		0025	14677													
		OBS	0020	0449	3382	2682					14677													
		OBS	0025	0450	3382	2682					14678													
		STD	0030	0449	3382	2682		0012412		0037	14678													
		OBS	0030	0449	3382	2682					14678													
		OBS	0038	0450	3382	2682					14680													
		STD	0050	0447	3388	2687		0011960		0062	14681													
		OBS	0050	0447	3388	2687					14681													
		OBS	0062	0432	3397	2696					14678													
		STD	0075	0391	3413	2713		0009540		0088	14665													
		OBS	0075	0391	3413	2713					14665													
		STD	0100	0382	3426	2724		0008495		0111	14667													
		OBS	0100	0382	3426	2724					14667													
		STD	0125	0404	3451	2741		0006860		0130	14684													
		OBS	0125	0404	3451	2741					14684													
		OBS	0145	0422	3462	2748					14697													

REFERENCE CTRY CODE	IO. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSOEN 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.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB													
318076		CC	47192N	046092W	149	76	04	14	030	1969	IIP	10431		0432	02	36	2	3		X1	0	3	0059	
						WATER		WIND		AIR TEMP. °C														
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						DT	SD	02	S10	230	050	040	7	21										
MESSNGR TIME HR 1/10	CAS 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 - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH	S C C							
030		STD	0000	0452	3383	2682	0012339	0000	14675															
		OBS	0000	0452	3383	2682			14675															
		OBS	0005	0452	3383	2682			14675															
003		STD	0010	0452	3383	2682	0012349	0012	14676															
		OBS	0010	0452	3383	2682			14676															
		OBS	0015	0452	3383	2682			14677															
		STD	0020	0452	3383	2682	0012358	0025	14678															
		OBS	0020	0452	3383	2682			14678															
		OBS	0025	0452	3383	2682			14679															
		STD	0030	0453	3383	2682	0012378	0037	14680															
		OBS	0030	0453	3383	2682			14680															
		OBS	0038	0452	3383	2682			14681															
		STD	0050	0450	3383	2683	0012366	0062	14682															
		OBS	0050	0450	3383	2683			14682															
		OBS	0062	0434	3384	2685			14677															
		STD	0075	0432	3389	2689	0011754	0092	14679															
		OBS	0075	0432	3389	2689			14679															
		OBS	0090	0365	3400	2705			14655															
		OBS	0097	0387	3410	2711			14667															
		STD	0100	0366	3408	2711	0009694	0119	14658															
		OBS	0100	0366	3408	2711			14658															
		OBS	0114	0362	3429	2728			14662															
		STD	0125	0400	3444	2736	0007345	0140	14682															
		OBS	0125	0400	3444	2736			14682															
		STD	0150	0366	3450	2745	0006578	0157	14672															
		OBS	0150	0366	3450	2745			14672															
		OBS	0175	0413	3468	2754			14699															
		OBS	0190	0464	3483	2760			14724															
		STD	0200	0454	3484	2762	0004992	0186	14722															
		OBS	0200	0454	3484	2762			14722															
		OBS	0203	0456	3483	2761			14723															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	GAUGE INCHES	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTN OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NCDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
1	318076	CC	47394N	046099W	149	76	04	14	054	1969	11P	10432	1051	05	35	2	3		X1	0	3		0060	

318076	CC	47394N	046099W	149	76	04	14	054	1969	IIP	10432	1051	05	35	2	3	X1	0	3	0060
					WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
					COLOR CODE	TRANS. IMT	DIR.	SPEED OF FORCE	(mb)		DRY BULB	WET BULB								
					DT	SD	35	S12	230	007	000	7	22							

MESSAGE TIME HR 1/10	CAS 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	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	COND.
		STD	0000	0192	3398	2718	0008930	0000	14565								
054		OBS	0000	0192	3398	2718			14565								
		OBS	0005	0192	3398	2718			14566								
		STD	0010	0192	3398	2718	0008934	0009	14567								
004		OBS	0010	0192	3398	2718			14567								
		OBS	0015	0192	3398	2718			14568								
		STD	0020	0192	3398	2718	0008937	0018	14568								
		OBS	0020	0192	3398	2718			14568								
		OBS	0025	0192	3398	2718			14569								
		STD	0030	0193	3398	2718	0008948	0027	14571								
		OBS	0030	0193	3398	2718			14571								
		OBS	0038	0193	3398	2718			14572								
		STD	0050	0196	3400	2720	0008826	0045	14575								
		OBS	0050	0196	3400	2720			14575								
		OBS	0062	0198	3402	2721			14579								
		STD	0075	0217	3410	2726	0008238	0066	14590								
		OBS	0075	0217	3410	2726			14590								
		STD	0100	0296	3433	2738	0007168	0085	14632								
		OBS	0100	0296	3433	2738			14632								
		STD	0125	0310	3446	2747	0006331	0102	14644								
		OBS	0125	0310	3446	2747			14644								
		STD	0150	0337	3460	2755	0005547	0117	14661								
		OBS	0150	0337	3460	2755			14661								
		OBS	0170	0397	3478	2764			14692								
		STD	0200	0413	3483	2766	0004626	0142	14705								
		OBS	0200	0413	3483	2766			14705								
		STD	0250	0421	3488	2769	0004387	0165	14717								
		OBS	0250	0421	3488	2769			14717								
		STD	0300	0421	3490	2771	0004288	0187	14725								
		OBS	0300	0421	3490	2771			14725								
		OBS	0350	0417	3490	2771			14732								
		STD	0400	0414	3490	2771	0004312	0230	14739								
		OBS	0400	0414	3490	2771			14739								
		OBS	0450	0415	3491	2772			14748								
		STD	0500	0413	3491	2772	0004326	0273	14755								
		OBS	0500	0413	3491	2772			14755								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MAGNITUDE	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
CRUISE NO.	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076	CC	48005N	046115W		149	86	04	14	083	1969	11P	10433	1150	06	28	1	2		X1	0	3		0061

318076	CC	48005N	046115W	149	86	04	14	083	1969	IIP	10433	1150	06	28	1	2		X1	0	3		0061
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WATER		WIND		SAR- METER (mba)	AIR TEMP. °C		VIS CODE	ND. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			

DT	SD	35	S08	230	003	000	7	25	
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MESSINGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t 07	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 ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₂ -Si μg - at/l	pH	3 CLD
		STD	0000	0175	0340	0274	0246251	0000	14153								
	083	OBS	0000	0175	03398	0274			14153								
		OBS	0005	0175	03398	0274			14154								
		STD	0010	0174	0340	0274	0246208	0246	14154								
	004	OBS	0010	0174	03398	0274			14154								
		OBS	0015	0174	03399	0274			14155								
		STD	0020	0176	0340	0274	0246149	0492	14157								
		OBS	0020	0176	03399	0274			14157								
		OBS	0025	0177	03399	0274			14158								
		STD	0030	0175	0340	0274	0246098	0739	14158								
		OBS	0030	0175	03400	0274			14158								
		OBS	0038	0178	03403	0274			14161								
		STD	0050	0187	0341	0275	0245925	1231	14167								
		OBS	0050	0187	03407	0275			14167								
		OBS	0062	0184	03408	0275			14168								
		OBS	0072	0232	03416	0277			14192								
		STD	0075	0213	0342	0276	0245670	1845	14184								
		OBS	0075	0213	03419	0276			14184								
		STD	0100	0284	0345	0280	0245264	2459	14221								
		OBS	0100	0284	03448	0280			14221								
		OBS	0105	0255	03444	0279			14209								
		STD	0125	0286	0346	0280	0245079	3072	14227								
		OBS	0125	0286	03458	0280			14227								
		STD	0150	0314	0346	0281	0244929	3684	14244								
		OBS	0150	0314	03464	0281			14244								
		STD	0200	0390	0348	0282	0244671	4908	14287								
		OBS	0200	0390	03481	0282			14287								
		STD	0250	0409	0349	0282	0244461	6131	14304								
		OBS	0250	0409	03488	0282			14304								
		STD	0300	0412	0349	0283	0244264	7353	14313								
		OBS	0300	0412	03490	0283			14313								
		OBS	0350	0407	03491	0283			14319								
		STD	0400	0402	0349	0283	0243856	9793	14325								
		OBS	0400	0402	03491	0283			14325								
		OBS	0450	0399	03491	0283			14332								
		STD	0500	0397	0349	0283	0243467	2230	14339								
		OBS	0500	0397	03491	0283			14339								
		OBS	0550	0394	03491	0283			14346								
		OBS	0554	0393	03491	0283			14346								

REFERENCE		SHIP	LATITUDE	LONGITUDE	M. S. S. S.	MARSOEN		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH	MAX.	WAVE				WEA-	CLOUD	NODC
CTRY	ID.	CODE	NO.	1/10		10"	1"	MO	DAY	HR.	1/10		CRUISE	STATION	TO	DEPTH	OBS.	DIR	HGT	PER	SEA	THER	TYPE

318076 CC 48185N 046045W 149 86 04 14 108 1969 IIP 10434 1040 05 28 1 2 X1 0 3 0062

WATER		WIND		BARO-	AIR TEMP. °C		VIS.	NO.	SPECIAL
COLOR	TRANSP.	DIR.	SPEED		DRY	WET			
CODE	(m)		OR FORCE	METER (mba)	BULB	BULB	CODE	OBS. DEPTHS	OBSERVATIONS
DT	SD	01	S05	240	020	020	7	22	

MESSENGER	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Σ Δ O	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	SiO ₄ -Si	pH	1
TIME OF	NO.					AND MALT-810°	DYN. M. X 10 ³	VELOCITY		μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l		CC
		STD	0000	0199	0341	0276	0246093	0000	14165							
108		OBS	0000	0199	03411	0276			14165							
		OBS	0005	0199	03411	0276			14165							
		STD	0010	0198	0341	0276	0246050	0246	14166							
004		OBS	0010	0198	03411	0276			14166							
		OBS	0015	0198	03411	0276			14167							
		STD	0020	0198	0341	0276	0245997	0492	14167							
		OBS	0020	0198	03412	0276			14167							
		OBS	0025	0199	03412	0276			14169							
		STD	0030	0199	0341	0276	0245950	0738	14170							
		OBS	0030	0199	03412	0276			14170							
		OBS	0038	0199	03413	0276			14171							
		STD	0050	0202	0342	0276	0245831	1230	14174							
		OBS	0050	0202	03415	0276			14174							
		OBS	0062	0202	03417	0276			14176							
		STD	0075	0220	0344	0278	0245515	1844	14187							
		OBS	0075	0220	03437	0278			14187							
		STD	0100	0293	0346	0281	0245182	2457	14226							
		OBS	0100	0293	03458	0281			14226							
		STD	0125	0344	0347	0281	0245006	3070	14254							
		OBS	0125	0344	03469	0281			14254							
		STD	0150	0356	0347	0282	0244893	3683	14263							
		OBS	0150	0356	03472	0282			14263							
		STD	0200	0395	0348	0282	0244664	4906	14289							
		OBS	0200	0395	03483	0282			14289							
		STD	0250	0405	0349	0282	0244469	6129	14302							
		OBS	0250	0405	03486	0282			14302							
		STD	0300	0408	0349	0282	0244271	7351	14312							
		OBS	0300	0408	03488	0282			14312							
		OBS	0350	0409	03489	0283			14320							
		STD	0400	0409	0349	0283	0243881	9792	14328							
		OBS	0400	0409	03490	0283			14328							
		OBS	0450	0408	03491	0283			14336							
		STD	0500	0406	0349	0283	0243491	2229	14343							
		OBS	0500	0406	03491	0283			14343							
		OBS	0515	0407	03492	0283			14346							

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN	STATION TIME				YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE				WEA-	CLOUD	NODC		
						10"	1"	MO	DAY		HR./10	CRUISE			STATION	DIR	HGT	PER				SEA	TYPE
CTRY	ID.											NO.	NUMBER										NUMBER
CODE	NO.																						
318076	CC	48347N	046100W	1969	149	86	04	14	130	1969	IIP	10435	2082	07	28	1	2			X1	0	3	0063
						WATER		WIND		BARO-		AIR TEMP. °C		VIS.		NO. OBS.		SPECIAL OBSERVATIONS					
						METER		IMBAL		DRY BULB		WET BULB		DEPTHS									
						COLOR		DIR.		SPEED OR FORCE													
						TRANS. (ml)																	
						DT		SD		02		505		240		036		031		7		26	

MESSNGR TIME HR 1/10	CST 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 - σ _t /l	TOTAL-P μg - σ _t /l	NO ₂ -N μg - σ _t /l	NO ₃ -N μg - σ _t /l	SiO ₄ -Si μg - σ _t /l	pH
130		STD	0000	0216	3412	2728	0008046	0000	14578							
		OBS	0000	0216	3412	2728			14578							
		OBS	0005	0198	3409	2727			14570							
005		STD	0010	0194	3413	2730	0007811	0008	14570							
		OBS	0010	0194	3413	2730			14570							
		OBS	0015	0193	3413	2730			14570							
		STD	0020	0193	3413	2730	0007808	0016	14571							
		OBS	0020	0193	3413	2730			14571							
		OBS	0025	0192	3414	2731			14571							
		STD	0030	0191	3414	2731	0007721	0024	14572							
		OBS	0030	0191	3414	2731			14572							
		OBS	0038	0191	3414	2731			14573							
		STD	0050	0191	3414	2731	0007729	0039	14575							
		OBS	0050	0191	3414	2731			14575							
		OBS	0062	0195	3418	2734			14579							
		STD	0075	0215	3429	2741	0006786	0057	14592							
		OBS	0075	0215	3429	2741			14592							
		STD	0100	0272	3453	2756	0005452	0072	14624							
		OBS	0100	0272	3453	2756			14624							
		STD	0125	0336	3468	2762	0004916	0085	14658							
		OBS	0125	0336	3468	2762			14658							
		STD	0150	0380	3479	2766	0004539	0097	14682							
		OBS	0150	0380	3479	2766			14682							
		STD	0200	0403	3486	2769	0004296	0119	14701							
		OBS	0200	0403	3486	2769			14701							
		STD	0250	0409	3489	2771	0004184	0140	14712							
		OBS	0250	0409	3489	2771			14712							
		STD	0300	0408	3490	2772	0004148	0161	14720							
		OBS	0300	0408	3490	2772			14720							
		OBS	0350	0404	3490	2772			14727							
		STD	0400	0406	3491	2773	0004150	0203	14736							
		OBS	0400	0406	3491	2773			14736							
		OBS	0450	0404	3492	2774			14743							
		STD	0500	0398	3492	2775	0004084	0244	14749							
		OBS	0500	0398	3492	2775			14749							
		OBS	0550	0394	3491	2774			14756							
		STD	0600	0395	3492	2775	0004146	0285	14764							
		OBS	0600	0395	3492	2775			14764							
		OBS	0650	0390	3492	2775			14771							
		STD	0700	0386	3491	2775	0004211	0327	14777							
		OBS	0700	0386	3491	2775			14777							
		OBS	0750	0382	3491	2775			14784							

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MM/YY DD/HH	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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076	CC	48460N	052530W	150	82	04	19	005	1969	11P	10436	0108	01	36	X	X		X5	X	8			0064
WATER		WIND		BARD- METER (mbal)	AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS														
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRT BULB	WET RULB																	
			24	S13	041	040	040	6	06														

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT=2107	Σ Δ D DTN, M. x 10 ³	SOUND VELOCITY	D 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 ₂ -Si μg - dl/l	pH
		STD	0000	-0029	3237	2602	0019986	0000	14443							
005		OBS	0000	-0029	32367	2602			14443							
		STD	0010	-0094	3250	2614	0018775	0019	14416							
005		OBS	0010	-0094	32495	2614			14416							
		STD	0020	-0093	3253	2617	0018502	0038	14419							
005		OBS	0026	-0093	32549	2619			14420							
		STD	0030	-0093	3255	2619	0018344	0056	14421							
		STD	0050	-0092	3257	2620	0018181	0093	14425							
005		OBS	0052	-0092	32577	2621			14425							
		STD	0075	-0096	3262	2625	0017771	0138	14428							
005		OBS	0078	-0096	32630	2625			14428							
005		OBS	0094	-0096	32670	2629			14432							

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARS 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	
CTRY CODE	ID. NO.					16"	1"		MO	DAY			HR./10	CRUISE NO.	STATION NUMBER	DIR.		HGT	PER		SEA
318076	CC	48485N	052420W	150	82	04	19	024	1969	IIP	10437	0223	02	36	X	X		X5	X	8	0065
						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									
									24	515	868	030	030	6	08						

MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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 CC
		STD	0000	-0078	3258	2621	0018172	0000	14423								
024		OBS	0000	-0078	32581	2621			14423								
		STD	0010	-0085	3258	2621	0018159	0018	14422								
024		OBS	0010	-0017Q	32579	2618Q											
		STD	0020	-0090	3264	2626	0017669	0036	14422								
024		OBS	0025	-0092	32662	2628			14422								
		STD	0030	-0092	3268	2629	0017349	0054	14423								
		STD	0050	-0094	3272	2633	0017025	0088	14426								
024		OBS	0051	-0094	32725	2633			14426								
		STD	0075	-0094	3276	2636	0016703	0130	14431								
024		OBS	0076	-0094	32766	2636			14431								
		STD	0100	-0080	3282	2640	0016278	0171	14442								
024		OBS	0102	-0079	32823	2640			14443								
		STD	0125	-0071	3290	2646	0015686	0211	14452								
		STD	0150	-0068	3301	2655	0014845	0249	14459								
024		OBS	0152	-0068	33017	2656			14459								
		STD	0200		3329												
024		OBS	0203	-0003Q	33305	2676Q											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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
318076	CC	48554N	052215W	150	82	04	19	054	1969	IIP	10438	0340	03	18	1	3		X4	X	8		0066
						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									
									35	507	692	040	040	4	09							

MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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 CC
		STD	0000	-0059	3272	2631	0017172	0000	14434								
054		OBS	0000	-0059	32720	2631			14434								
		STD	0010	-0065	3274	2633	0017015	0017	14433								
054		OBS	0011	-0066	32739	2633			14433								
		STD	0020	-0070	3273	2633	0017046	0034	14432								
054		OBS	0027	-0074	32729	2633			14432								
		STD	0030	-0077	3273	2633	0017016	0051	14431								
		STD	0050	-0091	3276	2636	0016728	0085	14428								
054		OBS	0055	-0092	32773	2637			14428								
		STD	0075	-0086	3289	2646	0015735	0125	14436								
054		OBS	0082	-0084	32916	2648			14439								
		STD	0100	-0083	3292	2648	0015534	0165	14442								
054		OBS	0110	-0082	32916	2648			14444								
		STD	0125	-0077	3296	2651	0015205	0203	14450								
		STD	0150	-0048	3308	2660	0014392	0240	14469								
054		OBS	0163	-0023	33181	2667			14484								
		STD	0200		0113												
054		OBS	T0218		0159	3409P	2730P										
		STD	0250		0159												
		STD	0300		0159												
054		OBS	T0323		0159	33420	2676Q										

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	NODC STATION NUMBER	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				
318076	CC		49012N	052016W		150	92	04	19	082	1969	11P	10439	0287	03	18	2	4		X7	7	8		0067			
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB															
									32	S12	044	040	040	6	09												
MESSAGE TIME HR 1/10	CAS 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 $\mu g - \text{at/l}$	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	S C								
		STD	0000	-0048	3270	2629		0017396		0000	14439																
082		OBS	0000	-0048	32696	2629					14439																
		STD	0010	-0057	3271	2631		0017250		0017	14436																
082		OBS	0011	-0058	32713	2631					14436																
		STD	0020	-0070	3272	2631		0017161		0035	14432																
082		OBS	0027	-0076	32717	2632					14430																
		STD	0030	-0076	3272	2632		0017112		0052	14431																
		STD	0050	-0074	3273	2633		0017030		0086	14435																
082		OBS	0054	-0074	32730	2633					14436																
		STD	0075	-0068	3285	2642		0016105		0127	14444																
082		OBS	0081	-0064	32877	2644					14447																
		STD	0100	-0047	3294	2649		0015487		0167	14459																
082		OBS	0109	-0038	32964	2650					14465																
		STD	0125	-0023	3301	2653		0015045		0205	14475																
		STD	0150	0011	3310	2659		0014514		0242	14496																
082		OBS	0162	0031	33154	2662					14508																
		STD	0200	0135	3338	2674		0013122		0311	14565																
082		OBS	T0217	0158	33503	2683					14579																
		STD	0250	0146	3378	2706		0010180		0369	14583																
082		OBS	0271	0138	33990	2723					14586																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	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			
318076	CC		49045N	051517W		150	91	04	19	107	1969	11P	10440	0289	02	18	1	4		X2	8	8		0068
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	WET BULB	DRY BULB	WET BULB												
									28	S04	058	020	010	7	09									
MESSAGE TIME HR 1/10	CAS 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 $\mu g - \text{at/l}$	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	S C					
		STD	0000	-0063	3288	2644		0015970		0000	14434													
107		OBS	0000	-0063	32875	2644					14434													
		STD	0010	-0066	3289	2645		0015878		0016	14435													
107		OBS	0010	-0066	32885	2645					14435													
		STD	0020	-0067	3289	2645		0015861		0032	14436													
107		OBS	0025	-0068	32887	2645					14436													
		STD	0030	-0064	3291	2647		0015684		0048	14439													
		STD	0050	-0057	3295	2650		0015386		0079	14446													
107		OBS	0050	-0057	32951	2650					14446													
		STD	0075	-0064	3293	2649		0015508		0117	14447													
107		OBS	0075	-0064	32930	2649					14447													
		STD	0100	-0065	3315	2666		0013841		0154	14454													
107		OBS	0100	-0065	33146	2666					14454													
		STD	0125	-0006	3337	2682		0012380		0187	14488													
		STD	0150	0042	3356	2694		0011201		0216	14517													
107		OBS	0150	0042	33557	2694					14517													
		STD	0200	0105	3381	2710		0009695		0268	14557													
107		OBS	0200	0105	33806	2710					14557													
		STD	0250	0163	3416	2735		0007429		0311	14596													
107		OBS	0250	0163	34161	2735					14596													

MEASURED TIME HR 1/10	CAST 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 $\mu g \cdot dl/l$	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	COND.
		STD	0000	-0009	3306	2657	0014783	0000	14462								
125		OBS	0000	-0009	33058	2657			14462								
		STD	0010	-0024	3306	2657	0014724	0015	14457								
125		OBS	0016	-0030	33057	2657			14455								
		STD	0020	-0031	3306	2657	0014699	0029	14455								
		STD	0030	-0033	3306	2657	0014694	0044	14456								
125		OBS	0042	-0035	33053	2657			14457								
		STD	0050	-0036	3305	2657	0014698	0074	14458								
125		OBS	0069	-0038	33049	2657			14460								
		STD	0075	-0030	3319	2668	0013659	0109	14466								
125		OBS	0095	-0002	33561	2697			14488								
		STD	0100	0007	3360	2700	0010697	0139	14493								
		STD	0125	0052	3380	2713	0009412	0165	14521								
125		OBS	0148	0090	33956	2723			14544								
		STD	0150	0093	3397	2724	0008369	0187	14546								
		STD	0200	0167	3420	2738	0007149	0226	14590								
125		OBS	T0213	0184	34253	2741			14600								
		STD	0250	0225	3437	2747	0006344	0259	14626								
125		OBS	T0277	0250	34435	2750			14642								

MESSAGE TIME HR / 10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ OYN. M. x 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	S C
		STD	0000	0008	3305	2655	0014951	0000	14469								
153		OBS	0000	0008	33046	2655			14469								
		STD	0010	-0016	3305	2656	0014811	0015	14460								
153		OBS	0010	-0016	33050	2656			14460								
		STD	0020	-0019	3305	2656	0014795	0030	14460								
153		OBS	0026	-0021	33046	2656			14460								
		STD	0030	-0022	3305	2656	0014795	0044	14461								
		STD	0050	-0026	3306	2657	0014702	0074	14462								
153		OBS	0051	-0026	33057	2657			14462								
		STD	0075	-0022	3343	2687	0011862	0107	14473								
153		OBS	0077	-0019	33460	2689			14476								
		STD	0100	0051	3371	2706	0010092	0135	14515								
153		OBS	0102	0056	33733	2708			14518								
		STD	0125	0088	3389	2718	0008943	0158	14538								
		STD	0150	0120	3403	2727	0008090	0180	14559								
153		OBS	0154	0125	34045	2728			14562								
		STD	0200	0176	3422	2739	0007065	0218	14594								
153		OBS	0205	0182	34240	2740			14598								
		STD	0250	0251	3444	2750	0006038	0250	14638								
153		OBS	0256	0259	34457	2751			14643								
		STD	0300	0304	3458	2757	0005498	0279	14672								
153		OBS	0307	0309	34593	2757			14675								

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT INDCTR	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
318076	CC	49306N	050323W		150	90	04	19	182	1969	IIP	10443	0336	03	18	1	3		X2	8	8	0071
					WATER		WIND		AIR TEMP. °C		BARO- METER (mb)		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE	DRY BULB	WET BULB												
							22	509	075	010	010	7	10									
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 - 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	S C					
		STD	0000	-0054	3318	2668	0013683	0000	14443													
182	OBS	0000	-0054	33178	2668				14443													
	STD	0010	-0061	3317	2668	0013683	0014		14441													
182	OBS	0010	-0061	33174	2668				14441													
	STD	0020	-0074	3321	2672	0013356	0027		14437													
182	OBS	0025	-0079	33223	2673				14436													
	STD	0030	-0083	3325	2675	0013014	0040		14435													
	STD	0050	-0098	3333	2682	0012338	0066		14433													
182	OBS	0051	-0099	33336	2683				14432													
	STD	0075	-0015	3343	2687	0011893	0096		14477													
182	OBS	0076	-0011	33438	2687				14479													
	STD	0100	0098	3360	2694	0011205	0125		14535													
182	OBS	0102	0105	33609	2695				14538													
	STD	0125	0161	3379	2705	0010185	0152		14569													
	STD	0150	0195	3397	2717	0009081	0176		14591													
182	OBS	0154	0198	33993	2719				14593													
	STD	0200	0171	3423	2740	0006954	0216		14592													
182	OBS	T0209	0166	34265	2743				14592													
	STD	0250	0245	3442	2749	0006137	0249		14636													
182	OBS	0262	0262	34460	2751				14645													
	STD	0300	0300	3456	2756	0005610	0278		14670													
182	OBS	T0312	0307	34592	2757				14675													

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT INDCTR	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		
318076	CC	49407N	050006W		150	90	04	19	205	1969	IIP	10444	0616	03	20	2	3		X1	4	6		0072
					WATER		WIND		AIR TEMP. °C		BARO- METER (mb)		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. IMI	DIR.	SPEED OF FORCE	DRY BULB	WET BULB													
							21		507	068	056	056	7	08									
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 - 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	S C						
		STD	0000	-0039	3333	2680	0012586	0000	14452														
205	OBS	0000	-0039	33329	2680				14452														
	STD	0010	-0046	3335	2682	0012415	0013		14450														
205	OBS	0011	-0047	33349	2682				14450														
	STD	0020	-0040	3339	2685	0012108	0025		14455														
205	OBS	0026	-0036	33412	2686				14459														
	STD	0030	-0035	3342	2687	0011896	0037		14460														
	STD	0050	-0030	3349	2692	0011378	0060		14467														
205	OBS	0052	-0029	33498	2693				14467														
	STD	0075	0026	3376	2711	0009579	0086		14500														
	STD	0100	0083	3399	2727	0008151	0108		14533														
205	OBS	0104	0092	34020	2728				14538														
	STD	0125	0143	3415	2736	0007333	0128		14566														
	STD	0150	0190	3427	2742	0006776	0145		14593														
205	OBS	0157	0201	34303	2743				14599														
	STD	0200	0240	3444	2751	0005917	0177		14625														
205	OBS	0209	0248	34462	2752				14631														
	STD	0250	0289	3456	2757	0005474	0206		14657														
205	OBS	0261	0300	34589	2758				14664														

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	GRID INDEX	MARSEEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	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	
318076	CC	49514N	049310W	149	99	04	20	017	1969	IIP	10445	1339	12	20	2	3		X2	7	8	0073	

318076		CC	49514N	049310W	149	99	04	20	017	1969	IIP	10445	1339	12	20	2	3		X2	7	8	0073
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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			

		19	S10	064	005	005	6	14	
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDALTY-10 ⁷	$\Sigma \Delta D$ DYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - at/l	TOTAL-P µg - at/l	NO ₂ -N µg - at/l	NO ₃ -N µg - at/l	SiO ₄ -Si µg - at/l	pH	STC
		STD	0000	0001	3342	2685	0012085	0000	14471								
		OBS	0000	0001	33417	2685			14471								
		STD	0010	-0003	3342	2685	0012049	0012	14471								
		OBS	0010	-0003	33419	2685			14471								
		STD	0020	-0008	3342	2686	0012016	0024	14471								
		OBS	0026	-0010	33421	2686			14471								
		STD	0030	-0011	3343	2686	0011963	0036	14471								
		STD	0050	-0015	3344	2688	0011803	0060	14473								
		OBS	0052	-0015	33445	2688			14473								
		STD	0075	0044	3378	2712	0009522	0087	14508								
		OBS	0078	0050	33816	2715			14512								
		STD	0100	0083	3396	2724	0008379	0109	14533								
		OBS	0104	0090	33987	2726			14537								
		STD	0125	0142	3415	2736	0007326	0129	14566								
		STD	0150	0198	3431	2744	0006535	0146	14597								
		OBS	0155	0209	34340	2746			14603								
		STD	0200	0298	3456	2756	0005522	0176	14652								
		OBS	T0206	0307	34583	2757			14657								
		STD	0250	0340	3467	2761	0005130	0203	14680								
		STD	0300	0371	3475	2764	0004883	0228	14702								
		OBS	0310	0376	34766	2765			14706								
		STD	0400	0409	3486	2769	0004556	0275	14736								
		OBS	T0416	0413	34877	2770			14741								
		STD	0500	0408	3489	2771	0004419	0320	14753								
		STD	0600	0403	3490	2773	0004385	0364	14768								
		OBS	0616	0402	34902	2773			14770								
		STD	0700	0401	3490	2773	0004427	0408	14783								
		STD	0800	0397	3491	2774	0004452	0452	14798								
		OBS	T0812	0396	34907	2774			14800								
		STD	0900	0386	3490	2774	0004452	0497	14810								
		STD	1000	0378	3490	2775	0004483	0541	14824								
		OBS	T1076	0374	34893	2775			14835								
		STD	1100	0373	3489	2775	0004532	0586	14838								
		STD	1200	0371	3490	2776	0004563	0632	14854								
		OBS	T1240	0371	34900	2776			14861								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	NODC NUMBER	MARSDEN 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	
CIN CODE	ID. NO.					10°	1°	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318076		CC	49593N	049006W		149	99	04	20	078	1969	11P	10446	1803	12	20	2	3		X2	7	8	0074
WATER		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																	
			31	S10	058	011	011	6	14														
MESSENGER TIME HR 1/10	CAST OF 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.C.						
		STD	0000	0064	3398	2727	0008135	0000	14508														
078		OBS	0000	0064	33977	2727			14508														
		STD	0010	0061	3398	2727	0008104	0008	14508														
078		OBS	0011	0061	33979	2727			14508														
		STD	0020	0058	3400	2729	0007926	0016	14509														
078		OBS	0026	0057	34016	2730			14510														
		STD	0030	0059	3402	2731	0007757	0024	14511														
		STD	0050	0070	3406	2733	0007559	0039	14520														
078		OBS	0051	0070	34059	2733			14520														
		STD	0075	0108	3417	2739	0006937	0057	14543														
078		OBS	0077	0111	34183	2740			14545														
		STD	0100	0140	3428	2746	0006321	0074	14563														
078		OBS	0102	0144	34284	2746			14565														
		STD	0125	0237	3442	2750	0006003	0089	14612														
		STD	0150	0308	3455	2754	0005654	0104	14648														
078		OBS	0155	0319	3426P	2730P																	
		STD	0200	0353	3474	2765	0004691	0130	14678														
078		OBS	0206	0357	34753	2766			14681														
		STD	0250	0377	3480	2767	0004525	0153	14697														
		STD	0300	0394	3484	2769	0004448	0175	14713														
078		OBS	0309	0396	34848	2769			14716														
		STD	0400	0405	3489	2772	0004259	0219	14735														
078		OBS	T0413	0406	34900	2772			14738														
		STD	0500	0402	3491	2773	0004203	0261	14751														
		STD	0600	0398	3491	2774	0004254	0303	14766														
078		OBS	0616	0397	34913	2774			14768														
		STD	0700	0396	3492	2775	0004281	0346	14781														
		STD	0800	0392	3492	2775	0004305	0389	14796														
078		OBS	0821	0391	34920	2775			14800														
		STD	0900	0381	3491	2776	0004334	0432	14808														
		STD	1000	0373	3491	2776	0004327	0476	14822														
078		OBS	1027	0371	34906	2776			14825														
		STD	1100	0370	3491	2777	0004376	0519	14837														
		STD	1200	0369	3492	2778	0004371	0563	14853														
078		OBS	T1233	0368	34925	2778			14859														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	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				
CTRY CODE	IO. NO.					10"	1'	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT			
318076		CC	49364N	049090W	149	99	04	20	104	1969	IIP	10447	1597	11	20	2	2		X2	8	8		0075			
						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															
								02	515	064	-010	-010	7	14												
MESSAGE TIME MR 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	Si O ₄ -Si μg - at/l	pH								
		STD	0000	-0014	3344	2687		0011865		0000	14465															
104		OBS	0000	-0014	33437	2687					14465															
		STD	0010	-0022	3344	2688		0011828		0012	14463															
104		OBS	0010	-0022	33437	2688					14463															
		STD	0020	-0031	3344	2688		0011778		0024	14460															
104		OBS	0023	-0032	33438	2688					14460															
		STD	0030	-0030	3346	2690		0011626		0035	14463															
104		OBS	0045	-0026	33501	2693					14468															
		STD	0050	0000	3361	2701		0010596		0058	14482															
104		OBS	0068	0078	33913	2721					14525															
		STD	0075	0099	3399	2726		0008247		0081	14536															
104		OBS	0090	0138	34141	2735					14558															
		STD	0100	0157	3420	2739		0007046		0100	14569															
		STD	0125	0198	3433	2746		0006374		0117	14593															
104		OBS	0136	0214	34376	2748					14603															
		STD	0150	0228	3443	2751		0005867		0132	14612															
104		OBS	0180	0261	34537	2757					14633															
		STD	0200	0292	3460	2760		0005167		0160	14650															
		STD	0250	0355	3473	2764		0004828		0185	14687															
104		OBS	0270	0374	34768	2765					14699															
		STD	0300	0391	3482	2767		0004566		0208	14712															
104		OBS	T0358	0414	34892	2771					14732															
		STD	0400	0411	3490	2772		0004279		0253	14738															
		STD	0500	0405	3491	2773		0004236		0295	14752															
104		OBS	0537	0403	34911	2773					14757															
		STD	0600	0399	3491	2774		0004258		0338	14766															
		STD	0700	0392	3491	2774		0004279		0380	14780															
104		OBS	0718	0391	34910	2775					14782															
		STD	0800	0384	3491	2775		0004309		0423	14793															
		STD	0900	0376	3490	2775		0004342		0467	14806															
104		OBS	0908	0375	34901	2775					14807															
		STD	1000	0369	3490	2776		0004354		0510	14820															
		STD	1100	0363	3490	2777		0004367		0554	14834															
104		OBS	T1105	0363	34896	2776					14835															

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPT INCH	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO EDDITM	MAX. DEPTH OF S'MPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER		
CITY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		A-V-T	
318076	CC		49119N	049189W		149	99	04	20	132	1969	11P	10448	1520	13	35	2	3		X1	6	6	0076		
						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													
									02	511	071	020	020	7	14										
MESSNGR TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t 67	Σ Δ 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	SIO ₄ -Si μg - dl/l	pH	S C								
		STD	0000	0053	3378	2711	0009590	0000	14500																
132		OBS	0000	0053	33778	2711			14500																
		STD	0010	0055	3380	2713	0009433	0010	14503																
132		OBS	0012	0056	33805	2713			14504																
		STD	0020	0061	3384	2716	0009158	0019	14508																
132		OBS	0028	0065	33888	2720			14512																
		STD	0030	0073	3390	2720	0008772	0028	14516																
		STD	0050	0139	3406	2729	0007970	0045	14551																
132		OBS	0055	0153	34104	2731			14559																
		STD	0075	0194	3429	2743	0006625	0063	14583																
132		OBS	0082	0211	34347	2746			14592																
		STD	0100	0264	3449	2753	0005686	0078	14620																
132		OBS	0109	0285	34543	2756			14631																
		STD	0125	0296	3459	2758	0005227	0092	14639																
		STD	0150	0316	3465	2761	0004975	0105	14653																
132		OBS	0164	0329	34684	2763			14661																
		STD	0200	0375	3477	2765	0004684	0129	14688																
132		OBS	0218	0392	34807	2766			14699																
		STD	0250	0401	3484	2768	0004474	0152	14708																
		STD	0300	0410	3487	2769	0004394	0174	14720																
132		OBS	0326	0412	34883	2770			14726																
		STD	0400	0407	3489	2771	0004340	0217	14736																
132		OBS	T0436	0405	34887	2771			14741																
		STD	0500	0404	3490	2772	0004300	0261	14751																
		STD	0600	0400	3491	2774	0004276	0304	14766																
132		OBS	0654	0397	34913	2774			14774																
		STD	0700	0391	3491	2775	0004268	0346	14779																
		STD	0800	0379	3490	2775	0004296	0389	14791																
132		OBS	0874	0374	34899	2775			14801																
		STD	0900	0374	3490	2776	0004326	0432	14805																
		STD	1000	0372	3490	2776	0004389	0476	14821																
132		OBS	1087	0371	34901	2776			14835																
		STD	1100	0371	3490	2776	0004449	0520	14837																
		STD	1200	0369	3491	2777	0004436	0564	14853																
		STD	1300	0366	3492	2778	0004409	0609	14869																
132		OBS	T1301	0366	34922	2778			14869																

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARDEN 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	ID. NO.					10"	1'	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076	CC	48447N	049288W	149	89	04	20	181	1969	11P	10449	1195	09	35	2	4			X2	6	8		0077
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	IMBAL	DRY BULB	WET BULB											
								02	510	061	010	010	7	14									

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 - 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	CTRY CODE
		STD	0000	-0061	3318	2669	0013611	0000	14440								
181		OBS	0000	-0061	33184	2669			14440								
181		OBS	0009	-0064	33189	2669			14440								
		STD	0010	-0065	3319	2670	0013546	0014	14439								
		STD	0020	-0073	3319	2670	0013512	0027	14437								
181		OBS	0022	-0074	33191	2670			14437								
		STD	0030	-0074	3321	2671	0013382	0041	14439								
181		OBS	0042	-0076	33228	2673			14440								
		STD	0050	-0079	3337	2685	0012101	0066	14442								
181		OBS	0064	-0083	33550	2699			14445								
		STD	0075	-0027	3360	2701	0010542	0094	14473								
181		OBS	0085	0016	33666	2704			14496								
		STD	0100	0049	3381	2714	0009320	0119	14515								
		STD	0125	0105	3403	2728	0007988	0141	14548								
181		OBS	0128	0112	34051	2730			14552								
		STD	0150	0166	3423	2740	0006899	0159	14582								
181		OBS	0169	0206	34358	2747			14604								
		STD	0200	0253	3448	2753	0005726	0191	14632								
		STD	0250	0312	3462	2759	0005237	0218	14667								
181		OBS	0253	0315	34631	2760			14669								
		STD	0300	0344	3470	2763	0004985	0244	14690								
181		OBS	T0342	0366	34748	2764			14707								
		STD	0400	0390	3480	2766	0004813	0293	14728								
		STD	0500	0415	3488	2770	0004549	0340	14756								
181		OBS	0507	0416	34889	2770			14757								
		STD	0600	0411	3490	2772	0004476	0385	14771								
181		OBS	T0670	0408	34910	2773			14781								
		STD	0700	0407	3491	2773	0004452	0430	14786								
		STD	0800	0402	3491	2773	0004481	0474	14800								
181		OBS	T0861	0399	34912	2774			14809								
		STD	0900	0396	3492	2774	0004474	0519	14815								
181		OBS	T0948	0393	34918	2775			14821								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARDEN 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	ID. NO.						10"	1'	MO DAY HR, 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076	CC	48339N	049328W	149	89	04	20	202	1969	11P	10450	0619	06	35	2	4			X2	6	8	0078
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	IMBAL	DRY BULB	WET BULB										
								02	515	058	010	010	7	10								

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 - 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	CTRY CODE
		STD	0000	-0012	3311	2661	0014411	0000	14461								
202		OBS	0000	-0012	33105	2661			14461								
		STD	0010	-0016	3311	2661	0014375	0014	14461								
202		OBS	0014	-0018	33108	2661			14461								
		STD	0020	-0021	3312	2662	0014251	0029	14460								
		STD	0030	-0027	3314	2664	0014070	0043	14460								
202		OBS	0032	-0028	33150	2665			14460								
202		OBS	0049	-0037	33200	2669			14459								
		STD	0050	-0037	3320	2669	0013547	0070	14459								
202		OBS	0074	-0037	33242	2673			14464								
		STD	0075	-0036	3325	2673	0013175	0104	14464								
		STD	0100	-0010	3352	2694	0011224	0134	14484								
		STD	0125	0022	3373	2709	0009780	0161	14506								
202		OBS	0126	0023	33734	2709			14507								
		STD	0150	0061	3386	2718	0009008	0184	14530								
202		OBS	T0180	0107	34016	2727			14558								
		STD	0200	0138	3411	2733	0007619	0226	14576								
		STD	0250	0207	3432	2744	0006573	0261	14618								
202		OBS	0282	0244	34430	2750			14641								
		STD	0300	0261	3447	2752	0005929	0292	14651								
202		OBS	T0385	0325	34647	2760			14695								
		STD	0400	0334	3467	2761	0005190	0348	14702								
		STD	0500	0376	3478	2766	0004888	0398	14738								
202		OBS	T0593	0386	34792	2766			14758								

REFERENCE		SHIP CODE	LATITUDE ° I/10	LONGITUDE ° I/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
CITY CODE	ID. NO.					10°	1°	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318076		CC	48142N	049408W		149	89	04	20	223		1969	IIP	10451	0220	02	19	2	3		X2	6	8	0079
						WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS										
						COLOR	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mbars)	DRY BULB	WET BULB	VIS. CODE											
								01	S13	044	010	010	7	09										
MESSAGE TIME HR I/10	CARD 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 C							
		STD	0000	-0008	3298	2650	0015369	0000	14461															
223		OBS	0000	-0008	32982	2650			14461															
		STD	0010	-0010	3301	2653	0015135	0015	14462															
223		OBS	0010	-0010	33011	2653			14462															
		STD	0020	-0010	3302	2653	0015101	0030	14464															
223		OBS	0020	-0010	33015	2653			14464															
		STD	0030	-0016	3304	2656	0014858	0045	14463															
223		OBS	0030	-0016	33043	2656			14463															
		STD	0050	-0036	3306	2658	0014628	0075	14458															
223		OBS	0050	-0036	33061	2658			14458															
		STD	0075	-0036	3306	2658	0014603	0111	14462															
223		OBS	0075	-0036	33063	2658			14462															
		STD	0100	-0008	3333	2679	0012666	0145	14483															
223		OBS	0100	-0008	33332	2679			14483															
		STD	0125	-0000	3333	2678	0012683	0177	14490															
		STD	0150	0017	3334	2678	0012748	0209	14502															
223		OBS	0151	0018	33336	2678			14503															
		STD	0200	0080	3361	2696	0011020	0268	14543															
223		OBS	0201	0082	33616	2697			14544															

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
CITY CODE	ID. NO.					10'	1°	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318076		CC	47581N	04946 W		149	79	04	21	001		1969	IIP	10452	0174	02	19	2	2		X5	7	8	0080
						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												
									03	S16	041	020	020	6	07									
MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	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	Si O ₄ -Si μg - at/l	pH	3 C C							
		STD	0000	0022	3279	2633	0016986	0000	14472															
		OBS	0000	0022	32788	2633			14472															
		STD	0010	0020	3279	2633	0016981	0017	14473															
		OBS	0010	0020	32787	2633			14473															
		STD	0020	0034	3281	2635	0016870	0034	14481															
		OBS	0026	0037	32823	2635			14484															
		STD	0030	0035	3283	2636	0016736	0051	14484															
		STD	0050	0013	3285	2639	0016449	0084	14477															
		OBS	0051	0012	32852	2639			14477															
		STD	0075	-0036	3310	2661	0014321	0122	14462															
		OBS	0077	-0040	33124	2663			14461															
		STD	0100	0006	3335	2679	0012597	0156	14489															
		OBS	0102	0010	33373	2681			14492															
		STD	0125	0051	3359	2696	0011003	0186	14517															
		STD	0150	0089	3380	2711	0009633	0211	14541															
		OBS	0155	0096	33839	2714			14546															

REFERENCE	SHIP CODE	LATITUDE	LONGITUDE	DEPTH	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
318076	CC	47435N	04954 W	149	79	04 21 020	1969	IIP 10453	0115	01	19 2 2	X5	6 8	0081

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			
		06	515	010	010	010	6	06	

MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	$\Sigma \Delta D$ 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
		STD	0000	0089	3285	2635	0016872	0000	14504							
	020	OBS	0000	0089	32848	2635			14504							
		STD	0010	0091	3285	2635	0016852	0017	14506							
	020	OBS	0010	0091	32852	2635			14506							
		STD	0020	0091	3285	2635	0016867	0034	14508							
	020	OBS	0025	0091	32845	2634			14509							
		STD	0030	0081	3285	2635	0016802	0051	14505							
		STD	0050	0054	3287	2639	0016486	0084	14496							
	020	OBS	0050	0054	32873	2639			14496							
		STD	0075	0045	3303	2652	0015245	0124	14499							
	020	OBS	0075	0045	33029	2652			14499							
		STD	0100	0036	3357	2696	0011075	0156	14506							
	020	OBS	0100	0036	33570	2696			14506							

REFERENCE	SHIP CODE	LATITUDE	LONGITUDE	DEPTH	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
318076	CC	47248N	050011W	150	70	04 21 041	1969	IIP 10454	0073	01	19 2 3	X6	7 8	0082

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			
		07	517	963	020	020	6	05	

MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	$\Sigma \Delta D$ 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
		STD	0000	0111	3284	2633	0017029	0000	14513							
	041	OBS	0000	0111	32844	2633			14513							
		STD	0010	0109	3284	2633	0017032	0017	14514							
	041	OBS	0010	0109	32842	2633			14514							
		STD	0020	0110	3285	2633	0017009	0034	14516							
	041	OBS	0025	0111	32848	2633			14518							
		STD	0030	0110	3285	2634	0016961	0051	14518							
		STD	0050	0106	3287	2635	0016800	0085	14520							
	041	OBS	0050	0106	32870	2635			14520							
	041	OBS	0064	0054	32995	2648			14500							

REFERENCE	SHIP CODE	LATITUDE	LONGITUDE	DEPTH	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
318076	CC	46596N	047298W	149	67	04 23 131	1969	IIP 10455	0216	02	32 5 3	X2	8 8	0083

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			
		30	517	200	019	019	7	09	

MESSAGE TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	$\Sigma \Delta D$ 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
		STD	0000	-0015	3311	2661	0014398	0000	14460							
	140	OBS	0000	-0015	33105	2661			14460							
		STD	0010	-0019	3312	2662	0014280	0014	14460							
	140	OBS	0011	-0019	33119	2662			14460							
		STD	0020	-0019	3312	2662	0014260	0029	14461							
	140	OBS	0022	-0019	33125	2662			14462							
		STD	0030	-0020	3313	2663	0014185	0043	14463							
	140	OBS	0033	-0020	33130	2663			14463							
		STD	0050	-0018	3314	2663	0014133	0071	14467							
	140	OBS	0055	-0017	33138	2663			14468							
		STD	0075	-0027	3327	2675	0013059	0105	14469							
	140	OBS	0082	-0031	33344	2661			14469							
		STD	0100	0055	3367	2703	0010419	0134	14516							
	140	OBS	0109	0083	33785	2710			14532							
		STD	0125	0099	3365	2714	0009315	0159	14543							
	140	OBS	0136	0109	33897	2718			14549							
		STD	0150	0119	3394	2720	0008765	0182	14557							
	140	OBS	0194	0136	34038	2727			14573							

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	UNIT MOON	MARS DEN 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./10	CRUISE NO.		STATION NUMBER				DIR.	NGV	PER	SEA		TYPE	AMT				
						10"	1"	MO	DAY	HR./10																	
318076		CC	46593N	047144W		149	67	04	23	155	1969	11P	10456	0532	05	32	2	2			X1	6	6	0084			
						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														
								28	S15	207	020	020	7					13									
MISSING TIME NR 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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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	1 C C							
			STD	0000	0024	3347	2688		0011820		0000	14483															
	155		OBS	0000	0024	33466	2688					14483															
	155		OBS	0008	0020	33469	2688					14482															
			STD	0010	0020	3347	2688		0011768		0012	14483															
			STD	0020	0019	3348	2689		0011685		0024	14484															
	155		OBS	0020	0019	33480	2689					14484															
			STD	0030	0019	3349	2690		0011615		0035	14486															
	155		OBS	0039	0019	33497	2691					14487															
			STD	0050	0017	3352	2693		0011366		0058	14489															
	155		OBS	0057	0016	33545	2695					14489															
			STD	0075	0038	3369	2705		0010175		0085	14504															
	155		OBS	0089	0060	33815	2714					14519															
			STD	0100	0085	3393	2722		0008619		0109	14533															
	155		OBS	0119	0124	34089	2732					14556															
			STD	0125	0133	3411	2733		0007567		0129	14561															
			STD	0150	0173	3423	2740		0006950		0147	14585															
	155		OBS	0158	0186	34264	2742					14592															
	155		OBS	T0195	0248	34444	2751					14628															
			STD	0200	0253	3445	2751		0005952		0179	14631															
	155		OBS	T0240	0280	34513	2754					14650															
			STD	0250	0281	3452	2754		0005716		0208	14652															
			STD	0300	0286	3454	2755		0005618		0237	14663															
	155		OBS	T0316	0287	34548	2756					14666															
	155		OBS	T0327	0295	34568	2757					14672															
			STD	0400	0306																						
			STD	0500	0321																						
	155		OBS	T0507	0322	34610	2758Q																				

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPT PROCT	MARS DEN 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./10	CRUISE NO.		STATION NUMBER				DIR.	NGV	PER	SEA		TYPE	AMT				
						10"	1"	MO	DAY	HR./10																	
318076		CC	47010N	046559W		149	76	04	23	197	1969	11P	10457		1163	09	34	2	2		X3	7	8	0085			
						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														
									31	S20	210		030	030	6	14											
MESSNGR NR 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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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	1 C C										
		STD	0000	0158	3390	2715	0009269	0000	14549																		
185		OBS	0000	0158	33904	2715			14549																		
185		OBS	0009	0156	33912	2716			14550																		
		STD	0010	0156	3391	2716	0009197	0009	14550																		
		STD	0020	0156	3392	2716	0009177	0018	14552																		
185		OBS	0023	0156	33916	2716			14552																		
		STD	0030	0156	3392	2716	0009167	0028	14553																		
185		OBS	0044	0157	33919	2716			14556																		
		STD	0050	0158	3392	2716	0009168	0046	14557																		
185		OBS	0065	0159	33919	2716			14560																		
		STD	0075	0159	3392	2716	0009156	0069	14562																		
185		OBS	0088	0158	33927	2717			14564																		
		STD	0100	0184	3406	2725	0008301	0091	14579																		
		STD	0125	0239	3432	2742	0006774	0109	14611																		
185		OBS	0131	0252	34376	2745			14618																		
		STD	0150	0299	3454	2754	0005647	0125	14644																		
185		OBS	0174	0347	34704	2763			14671																		
		STD	0200	0372	3478	2766	0004579	0151	14687																		
		STD	0250	0406	3489	2771	0004152	0172	14711																		
185		OBS	T0261	0410	34909	2772			14715																		
		STD	0300	0411	3493	2774	0003951	0193	14721																		
185		OBS	T0345	0411	34943	2775			14729																		
		STD	0400	0406	3494	2776	0003896	0232	14736																		
185		OBS	T0496	0398	34947	2777			14749																		
		STD	0500	0398	3495	2777	0003883	0271	14750																		
		STD	0600	0393	3495	2777	0003908	0310	14764																		
185		OBS	T0649	0391	34950	2778			14771																		
		STD	0700	0390	3495	2778	0003960	0349	14779																		
		STD	0800	0386	3495	2778	0004006	0389	14794																		
185		OBS	T0831	0384	34950	2778			14799																		
		STD	0900	0379	3494	2778	0004088	0429	14808																		
185		OBS	T0928	0377	34940	2778			14812																		

REFERENCE		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		NOCC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318076	CC	47015N	047435W	149	77	04	23	229	1969	IIP	10458	0181	01	31	4	3			X2	7	8	0086	
						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																
					32	S12	166	010	010	6	07												
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{at/l}$	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					
		STD	0000	-0007	3300	2652		0015220		0000	14462												
		OBS	0000	-0007	33002	2652					14462												
		STD	0010	-0010	3304	2655		0014944		0015	14463												
228		OBS	0010	-0010	33036	2655					14463												
		STD	0020	-0018	3307	2658		0014646		0030	14461												
228		OBS	0025	-0021	33087	2659					14461												
		STD	0030	-0026	3310	2660		0014418		0044	14459												
		STD	0050	-0031	3313	2663		0014137		0073	14461												
228		OBS	0050	-0031	33128	2663					14461												
		STD	0075	-0007	3332	2678		0012762		0107	14479												
228		OBS	0075	-0007	33321	2678					14479												
		STD	0100	0050	3363	2699		0010733		0136	14513												
228		OBS	0100	0050	33625	2699					14513												
		STD	0125	0044																			
		STD	0150	-0025																			
228		OBS	0150	-0025	3306P	2657P																	

REFERENCE CTRY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	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		NOCC STATION NUMBER	
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
318076	CC	46597N	048138W		149	68	04	24	014	1969	IIP	10460	0121	01	27	3	3		X2	7	8		0087
					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																		
							32 S10		244	000	000	7	06										
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{at/l}$	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					
		STD	0000	0015	3291	2644		0016014		0000	14471												
	017	OBS	0000	0015	32911	2644					14471												
		STD	0010	0013	3291	2644		0016025		0016	14471												
	017	OBS	0010	0013	32908	2644					14471												
		STD	0020	0013	3291	2644		0016007		0032	14473												
	017	OBS	0025	0012	32917	2644					14474												
		STD	0030	0010	3292	2645		0015914		0048	14474												
		STD	0050	0003	3293	2646		0015799		0080	14474												
	017	OBS	0050	0003	32930	2646					14474												
		STD	0075	-0009	3309	2659		0014515		0118	14475												
	017	OBS	0075	-0009	3219P	2587P																	
		STD	0100	0007	3340	2683		0012220		0151	14490												
	017	OBS	0110	0022	33568	2696					14501												

REFERENCE		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'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT
318076	CC	46596N	048294W	149	68	04	24	033	1969	IIP	10461	0110	01	31	3	3			X2	7	8		0088
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbs)		DRY BULB	WET BULB														
								36		S06	240	010	010	5	05								
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{at/l}$	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					
		STD	0000	0084	3290	2639		0016441		0000	14502												
033		OBS	0000	0084	32901	2639					14502												
		STD	0010	0082	3290	2639		0016407		0016	14503												
033		OBS	0011	0082	32904	2640					14503												
		STD	0020	0083	3291	2640		0016404		0033	14505												
		OBS	0027	0084	32905	2639					14507												
		STD	0030	0083	3291	2640		0016356		0049	14507												
		STD	0050	0066	3295	2644		0015933		0081	14503												
033		OBS	0054	0061	32963	2645					14501												
		STD	0075	0026	3313	2661		0014378		0119	14491												
033		OBS	0098	-0030	33447	2689					14474												

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	MARS 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./10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
318076		CC	46599N	048438W		149	68	04	24	046	1969	IIP	10462	0091	01	31	3	3		X2	7	8	0089
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB											
									01	507	244	010	010	6	05								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107		$\Sigma \Delta D$ 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 ₃ -N $\mu g - \text{dl/l}$	NO ₃ -N $\mu g - \text{dl/l}$	SiO ₄ -Si $\mu g - \text{dl/l}$	pH	S CODE					
		STD	0000	0096	3288	2636	0016699		0000	14507													
	046	OBS	0000	0096	32876	2636				14507													
		STD	0010	0096	3288	2637	0016690		0017	14509													
	046	OBS	0011	0096	32877	2637				14509													
		STD	0020	0088	3288	2637	0016621		0033	14507													
	046	OBS	0027	0082	32885	2638				14505													
		STD	0030	0081	3289	2638	0016533		0050	14505													
		STD	0050	0071	3289	2639	0016457		0083	14504													
	046	OBS	0053	0070	32890	2639				14504													
		STD	0075	0003	3326	2672	0013274		0120	14483													
	046	OBS	0079	-0015	33361	2681				14476													

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	MARS 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			DIR.	HGT	PER	SEA		TYPE	AMT	
318076	CC	46598N	048490W	149	68	04	24	059	1969	IIP	10463	0086	01	31	3	3		X2	7	8		0090
					WATER		WIND		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbal)	DRY BULB					WET BULB							
																6	05					
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-2107	$\Sigma \Delta D$ 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 ₃ -N $\mu g - \text{dl/l}$	NO ₃ -N $\mu g - \text{dl/l}$	SiO ₄ -Si $\mu g - \text{dl/l}$	pH	S CODE					
		STD	0000	0105	3286	2634	0016903	0000	14511													
	059	OBS	0000	0105	32856	2634			14511													
		STD	0010	0105	3286	2634	0016910	0017	14513													
	059	OBS	0010	0105	32855	2634			14513													
		STD	0020	0100	3286	2635	0016873	0034	14512													
	059	OBS	0025	0099	32857	2635			14512													
		STD	0030	0099	3286	2635	0016861	0051	14513													
		STD	0050	0101	3286	2635	0016862	0084	14517													
	059	OBS	0050	0101	32858	2635			14517													
	059	OBS	0060	0086	32870	2637			14512													

REFERENCE CITY CODE ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	MARS DEN SQUARE		STATION TIME IGMT1			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	
318076	CC	46595N	047581W	149	67	04	24	238	1969	IIP	10459	0143	01	31	4	3		X2	7	8		0091
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	DRY BULB	WET BULB											
								33	S12	234	000						000	6	07			
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-2107		$\Sigma \Delta D$ 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 ₃ -N $\mu g - \text{dl/l}$	NO ₃ -N $\mu g - \text{dl/l}$	SiO ₄ -Si $\mu g - \text{dl/l}$	pH	S CODE		
		STD	0000	-0008	3292	2646		0015827		0000		14460										
	002	OBS	0000	-0008	32922	2646						14460										
		STD	0010	-0010	3293	2646		0015792		0016		14461										
	002	OBS	0010	-0010	32925	2646						14461										
		STD	0020	-0008	3293	2646		0015790		0032		14464										
	002	OBS	0027	-0007	32927	2646						14465										
		STD	0030	-0007	3293	2646		0015776		0047		14466										
		STD	0050	-0008	3293	2646		0015742		0079		14469										
	002	OBS	0053	-0009	32932	2646						14469										
		STD	0075	-0019	3311	2661		0014318		0116		14470										
	002	OBS	0080	-0021	33164	2666						14471										
		STD	0100	0023	3347	2688		0011768		0149		14499										
	002	OBS	0106	0033	33537	2693						14505										
		STD	0125	0052	3366	2702		0010476		0177		14519										
	002	OBS	0134	0055	33674	2703						14522										

TABLE II.—Observed and interpolated oceanographic data from stations occupied by USCGC COOK INLET,
5 May to 4 June 1969, prepared from NODC Listing No. 31-8081

REFERENCE		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		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

318081	CO	4722 N	04957 W	149	79	05	16	230	1969	IIP	10464	0097	01	36	4	3				X2	0	6		0001								
					WATER				WIND				BARO- METER				AIR TEMP. °C				VIS. CODE				NO. OBS. DEPTH				SPECIAL OBSERVATIONS			
COLOR CODE		TRANS. (m)		DIR.		SPEED OR FORCE		DRY RULR		WET RULR																						
DT		SD		36		S23		098		03		03		6		07																

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta \sigma$ 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 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
		STD	0000	0237	3295	2632	0017074	0000	14571							
	230	OBS	0000	0237	32949	2632			14571							
		STD	0010	0236	3295	2633	0017054	0017	14572							
		OBS	0010	0236	32951	2633			14572							
		STD	0020	0230	3295	2633	0017013	0034	14571							
	000	OBS	0020	0230	32951	2633			14571							
		OBS	0025	0180	32956	2637			14550							
		STD	0030	0167	3295	2638	0016546	0051	14545							
		OBS	0030	0167	32954	2638			14545							
		STD	0050	0142	3299	2643	0016096	0084	14538							
		OBS	0050	0142	32992	2643			14538							
		OBS	0065	0107	33016	2647			14525							

REFERENCE		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		NOOC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	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 RULR	WET BULB					
DT	SD	34	S30	112	03	03	7	08		

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta \sigma$ 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 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
		STD	0000	0217	3295	2634	0016942	0000	14562							
	026	OBS	0000	0217	32947	2634			14562							
		STD	0010	0217	3295	2634	0016944	0017	14564							
		OBS	0010	0217	32947	2634			14564							
		STD	0020	0204	3295	2635	0016823	0034	14560							
	000	OBS	0020	0204	32951	2635			14560							
		OBS	0027	0175	33021	2643			14549							
		STD	0030	0173	3299	2640	0016344	0050	14548							
		OBS	0030	0173	32986	2640			14548							
		STD	0050	0158	3300	2642	0016178	0083	14545							
		OBS	0050	0158	32995	2642			14545							
		STD	0075	0098	3310	2654	0015033	0122	14523							
		OBS	0075	0098	33096	2654			14523							
		OBS	0097	0042	33419	2683			14506							

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	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			
CIRY CODE	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT	
318081		CD	4806 N	04944 W		149	89	05	17	062	1969	IIP	10466		0199	02	36	4	3		X2	0 6		0003
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mba)	DRY BULB	WET BULB												
						OT	SD	32	524	108	03	02	7	12										
MESSNGR TIME HR 1/10	CAST ND.	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	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	ND ₃ -N $\mu\text{g} - \text{dl/l}$	SiD ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S CC						
		STD	0000	0045	3280	2633	0016983		0000	14483														
	062	OBS	0000	0045	32803	2633				14483														
		STD	0010	0048	3280	2633	0016988		0017	14486														
		OBS	0010	0048	32804	2633				14486														
		STD	0020	0047	3281	2634	0016973		0034	14487														
	001	OBS	0020	0047	32805	2634				14487														
		OBS	0025	0048	32796	2633				14488														
		STD	0030	0048	3281	2634	0016969		0051	14489														
		OBS	0030	0048	32806	2634				14489														
		STD	0050	-0102	3314	2666	0013819		0082	14428														
		OBS	0050	-0102	33135	2666				14428														
		STD	0075	-0098	3312	2665	0013972		0116	14434														
		OBS	0075	-0098	33115	2665				14434														
		OBS	0085	-0075	33166	2668				14447														
		STD	0100	-0068	3318	2669	0013547		0151	14453														
		OBS	0100	-0068	33183	2669				14453														
		STD	0125	-0048	3333	2680	0012525		0183	14468														
		OBS	0125	-0048	33326	2680				14468														
		STD	0150	0000	3355	2696	0011055		0213	14498														
		OBS	0150	0000	33547	2696				14498														
		OBS	0175	0025	33669	2704				14515														

REFERENCE CIRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDICATOR	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		
						10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318081		CD	48136N	049406W		149	89	05	17	079	1969	11P	10467	0220	02	32	4	3		X1	0 6		0004
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	(mba)	DRY BULB	WET BULB											
						OT	SD	33	518	115	02	01	7	12									
MESSNGR TIME HR 1/10	CAST 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	PO ₄ -P $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -N $\mu\text{g} - \text{dl/l}$	ND ₃ -N $\mu\text{g} - \text{dl/l}$	SiD ₄ -Si $\mu\text{g} - \text{dl/l}$	pH	S CC					
		STD	0000	0092	3282	2632	0017095		0000	14505													
	079	OBS	0000	0092	32821	2632				14505													
		STD	0010	0092	3282	2632	0017094		0017	14506													
		OBS	0010	0092	32821	2632				14506													
		STD	0020	0092	3282	2632	0017086		0034	14508													
	002	OBS	0020	0092	32822	2632				14508													
		OBS	0025	0089	32822	2633				14507													
		STD	0030	0092	3282	2632	0017085		0051	14510													
		OBS	0030	0092	32822	2632				14510													
		STD	0050	-0017	3300	2652	0015206		0084	14466													
		OBS	0050	-0017	32996	2652				14466													
		STD	0075	-0048	3322	2671	0013385		0119	14458													
		OBS	0075	-0048	33216	2671				14458													
		STD	0100	-0034	3338	2684	0012197		0151	14471													
		OBS	0100	-0034	33378	2684				14471													
		STD	0125	0001	3354	2695	0011088		0180	14494													
		OBS	0125	0001	33544	2695				14494													
		STD	0150	0067	3385	2716	0009150		0206	14532													
		OBS	0150	0067	33846	2716				14532													
		OBS	0175	0083	33909	2720				14544													
		STD	0200	0186	3436	2749	0006107		0244	14601													
		OBS	0200	0186	34357	2749				14601													

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /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		NOCC STATION NUMBER
CTRY CODE	IC. NO.					10"	1"	MO	DAY	HR. /10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081	CO	4833 N	04933 W	149	89	05	17	110	1969	11P	10468	0770	05	33	6	3			X2	0	6	0005
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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			
PT	50	33	522	129	04	03	7	15	

DT	50	33	522	129	04	03	7	15	
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MESSENGR 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. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₂ -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 ₂ -Si $\mu g - at/l$	pH
		STD	0000	0042	3330	2674	0013169	0000	14489							
110		OBS	0000	0042	33301	2674			14489							
		STD	0010	0042	3330	2674	0013167	0013	14490							
		OBS	0010	0042	33301	2674			14490							
		STD	0020	0042	3330	2674	0013151	0026	14492							
001		OBS	0020	0042	33303	2674			14492							
		STD	0030	0040	3330	2674	0013154	0039	14493							
		OBS	0030	0040	33301	2674			14493							
		STD	0050	-0112	3351	2697	0010899	0064	14429							
		OBS	0050	-0112	33512	2697			14429							
		OBS	0067	-0055	33673	2708			14460							
		OBS	0071	-0067	33686	2710			14456							
		STD	0075	-0065	3374	2714	0009304	0089	14458							
		OBS	0075	-0065	33741	2714			14458							
		STD	0100	0033	3391	2723	0008502	0111	14509							
		OBS	0100	0033	33906	2723			14509							
		STD	0125	0079	3407	2733	0007521	0131	14537							
		STD	0150	0117	3420	2741	0006774	0149	14560							
		OBS	0150	0117	34201	2741			14560							
		STD	0200	0167	3434	2749	0006106	0181	14592							
		OBS	0200	0167	34338	2749			14592							
		STD	0250	0242	3449	2755	0005585	0210	14635							
		STD	0300	0296	3461	2760	0005175	0237	14669							
		OBS	0300	0296	34613	2760			14669							
		STD	0400	0343	3478	2769	0004487	0286	14707							
		OBS	0400	0343	34776	2769			14707							
		STD	0500	0393	3491	2774	0004126	0329	14747							
		OBS	0500	0393	34907	2774			14747							
		OBS	0550	0393	34908	2774			14755							

REFERENCE	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		NODC STATION NUMBER				
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT			
318081	CO	4849 N	04926 W	149	89	05	17	151	1969	11P	10469		1463	14	05	4	3		X2	0	6		0006		
					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														
					DT	SD	31	S18	132	06	04	7					26								
MESSENGER TIME OF HR 1/10	CASST 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	SEC								
		STD	0000	0123	3353	2687	0011876	0000	14528																
151		OBS	0000	0123	33531	2687			14528																
		STD	0010	0120	3353	2687	0011896	0012	14529																
		OBS	0010	0120	33526	2687			14529																
		STD	0020	0118	3353	2687	0011869	0024	14529																
004		OBS	0020	0118	33528	2687			14529																
		STD	0030	0100	3356	2691	0011547	0035	14523																
		OBS	0030	0100	33556	2691			14523																
		OBS	0040	0075	33716	2705			14516																
		OBS	0047	0088	33736	2706			14523																
		STD	0050	0068	3378	2710	0009687	0057	14515																
		OBS	0050	0068	33776	2710			14515																
		OBS	0065	0030	33988	2730			14503																
		STD	0075	0040	3400	2730	0007857	0079	14510																
		OBS	0075	0040	33996	2730			14510																
		STD	0100	0136	3431	2749	0006096	0096	14561																
		OBS	0100	0136	34306	2749			14561																
		STD	0125	0185	3444	2756	0005443	0111	14589																
		STD	0150	0230	3454	2760	0005076	0124	14614																
		OBS	0150	0230	34537	2760			14614																
		STD	0200	0307	3465	2762	0004913	0149	14657																
		OBS	0200	0307	34652	2762			14657																
		STD	0250	0336	3474	2767	0004536	0172	14679																
		OBS	0250	0336	34744	2767			14679																
		STD	0300	0362	3482	2770	0004304	0194	14699																
		OBS	0300	0362	34815	2770			14699																
		STD	0400	0393	3490	2773	0004114	0236	14730																
		OBS	0400	0393	34896	2773			14730																
		STD	0500	0394	3491	2774	0004145	0278	14747																
		OBS	0500	0394	34906	2774			14747																
		STD	0600	0394	3493	2776	0004082	0319	14764																
		OBS	0600	0394	34927	2776			14764																
		STD	0700	0395	3494	2776	0004121	0360	14781																
		OBS	0700	0395	34936	2776			14781																
		STD	0800	0395	3494	2776	0004192	0401	14798																
		OBS	0800	0395	34939	2776			14798																
		STD	0900	0394	3494	2777	0004273	0444	14814																
		OBS	0900	0394	34939	2777			14814																
		STD	1000	0386	3493	2776	0004364	0487	14827																
		OBS	1000	0386	34926	2776			14827																
		STD	1100	0378	3492	2777	0004378	0531	14841																
		OBS	1100	0378	34923	2777			14841																
		STD	1200	0377	3493	2777	0004438	0575	14857																
		OBS	1200	0377	34925	2777			14857																
		STD	1300	0362	3494	2780	0004249	0618	14868																
		OBS	1300	0362	34937	2780			14868																
		STD	1400	0355	3494	2781	0004192	0660	14882																
		OBS	1400	0355	34944	2781			14882																
		OBS	1420	0355	34942	2781			14885																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS 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	

318081 CO 4911 N 04919 W 149 99 05 17 190 1969 IIP 10470 1536 15 05 5 3 X1 0 6 0007

WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB	
DT	SD	ZB	S08	129	03	01	8 26

MESSENGR TIME NR 1/10	CAST or NO.	CARO TYPE	DEPTN (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D DTN. 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	1 C C
	190	STD	0000	0256	3396	2712	0009560	0000	14593								
		OBS	0000	0256	33961	2712			14593								
		STD	0010	0256	3396	2712	0009565	0010	14595								
		OBS	0010	0256	33961	2712			14595								
		STD	0020	0245	3397	2713	0009437	0019	14592								
	003	OBS	0020	0245	33967	2713			14592								
		STD	0030	0215	3396	2715	0009293	0028	14580								
		OBS	0030	0215	33956	2715			14580								
		OBS	0038	0187	34107	2729			14571								
		OBS	0040	0199	34116	2729			14577								
		STD	0050	0082	3407	2733	0007564	0045	14526								
		OBS	0050	0082	34066	2733			14526								
		STD	0075	0154	3434	2750	0005987	0062	14566								
		OBS	0075	0154	34336	2750			14566								
		OBS	0086	0184	34356	2749			14581								
		STD	0100	0167	3440	2754	0005626	0077	14576								
		OBS	0100	0167	34397	2754			14576								
		STD	0125	0202	3450	2759	0005120	0090	14597								
		STD	0150	0239	3459	2763	0004743	0103	14619								
		OBS	0150	0239	34591	2763			14619								
		STD	0200	0321	3474	2768	0004360	0125	14665								
		OBS	0200	0321	34743	2768			14665								
		STD	0250	0363	3482	2770	0004263	0147	14692								
		OBS	0250	0363	34816	2770			14692								
		STD	0300	0388	3488	2772	0004116	0168	14711								
		OBS	0300	0388	34876	2772			14711								
		STD	0400	0397	3492	2774	0004015	0208	14732								
		OBS	0400	0397	34915	2774			14732								
		STD	0500	0397	3494	2776	0003939	0248	14749								
		OBS	0500	0397	34938	2776			14749								
		STD	0600	0397	3494	2777	0003997	0288	14766								
		OBS	0600	0397	34943	2777			14766								
		STD	0700	0395	3495	2777	0004046	0328	14781								
		OBS	0700	0395	34946	2777			14781								
		STD	0800	0392	3495	2777	0004105	0369	14797								
		OBS	0800	0392	34946	2777			14797								
		STD	0900	0382	3494	2778	0004094	0410	14809								
		OBS	0900	0382	34944	2778			14809								
		STD	1000	0370	3494	2779	0004100	0451	14821								
		OBS	1000	0370	34936	2779			14821								
		STD	1100	0367	3494	2779	0004135	0492	14836								
		OBS	1100	0367	34938	2779			14836								
		STD	1200	0366	3494	2779	0004222	0534	14853								
		OBS	1200	0366	34936	2779			14853								
		STD	1300	0364	3494	2780	0004259	0576	14869								
		OBS	1300	0364	34939	2780			14869								
		STD	1400	0363	3495	2780	0004286	0619	14885								
		OBS	1400	0363	34945	2780			14885								
		STD	1500	0362	3495	2781	0004311	0662	14901								
		OBS	1500	0362	34951	2781			14901								

REFERENCE CTRY CODE	SHIP ID. CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS DEN SQUARE	STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAR. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						STATION TIME IGMT				CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
						10"	1"	MO DAY HR.1/10												
318081	CO		49354N	049090W	149 99	05 17	205	1969	11P	10471	1609	15	05	5	3		X2	0 6	0008	
WATER						WIND			BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mba)	DRY RULB	WET RULB	VIS. CODE													
DT	SD	20	S10	105	03	02	7	20												
MISSING TIME HR 1/10	CASE OF NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-8107	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 ₂ -N μg - ml/l	SiO ₄ -Si μg - ml/l	pH				
		STD	0000	0200	3373	2698	0010853	0000	14565											
205		OBS	0000	0200	33734	2698			14565											
		STD	0010	0200	3374	2699	0010795	0011	14567											
		OBS	0010	0200	33742	2699			14567											
		STD	0020	0205	3383	2705	0010169	0021	14572											
006		OBS	0020	0205	33830	2705			14572											
		OBS	0025	0130	33816	2710			14539											
		STD	0030	0110	3392	2719	0008842	0031	14533											
		OBS	0030	0110	33920	2719			14533											
		OBS	0040	0089	34136	2738			14528											
		STD	0050	0113	3422	2743	0006616	0046	14542											
		OBS	0050	0113	34216	2743			14542											
		STD	0075	0139	3432	2749	0006019	0062	14559											
		OBS	0075	0139	34318	2749			14559											
		STD	0100	0174	3442	2755	0005533	0077	14580											
		OBS	0100	0174	34416	2755			14580											
		STD	0125	0212	3453	2760	0005002	0090	14602											
		OBS	0125	0212	34526	2760			14602											
		STD	0150	0258	3461	2763	0004753	0102	14627											
		OBS	0150	0258	34611	2763			14627											
		STD	0200	0337	3479	2770	0004182	0124	14672											
		OBS	0200	0337	34787	2770			14672											
		STD	0250	0372	3487	2773	0003987	0145	14696											
		OBS	0250	0372	34865	2773			14696											
		STD	0300	0382	3489	2774	0003919	0164	14709											
		OBS	0300	0382	34894	2774			14709											
		STD	0400	0387	3491	2775	0003975	0204	14728											
		OBS	0400	0387	34906	2775			14728											
		STD	0500	0386	3492	2776	0003953	0243	14744											
		STD	0600	0384	3493	2777	0003978	0283	14760											
		OBS	0600	0384	34926	2777			14760											
		STD	0700	0381	3492	2776	0004080	0323	14775											
		STD	0800	0377	3491	2776	0004213	0365	14790											
		OBS	0800	0377	34908	2776			14790											
		STD	0900	0369	3490	2776	0004268	0407	14803											
		STD	1000	0364	3489	2776	0004354	0450	14818											
		OBS	1000	0364	34892	2776			14818											
		STD	1100	0364	3491	2777	0004305	0494	14835											
		STD	1200	0364	3492	2778	0004345	0537	14851											
		OBS	1200	0364	34916	2778			14851											
		STD	1300	0364	3492	2778	0004399	0581	14868											
		STD	1400	0363	3493	2779	0004396	0625	14885											
		STD	1500	0362	3494	2780	0004421	0669	14901											
		OBS	1500	0362	34936	2780			14901											

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	MARS DEN 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
318081	CO	5001 N	04859 W	185	08	05	18	039	1969	IIP	10472	1850	15	05	4	3		X2	0	6		0009	
					WATER		WIND		AIR TEMP. °C		BARO- METER		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS											
					DT	SD	19	S20	054	04	03	7	25										

MESSENGER TIME HR 1/10	CARD ND.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SDND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SID ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	0.00
		STD	0000	0319	3414	2720	0008767	0000	14623								
039		OBS	0000	0319	34136	2720			14623								
		STD	0010	0318	3414	2720	0008765	0009	14624								
		OBS	0010	0318	34136	2720			14624								
		STD	0020	0313	3414	2721	0008728	0018	14623								
005		OBS	0020	0313	34136	2721			14623								
		OBS	0025	0156	34011	2723			14554								
		STD	0030	0156	3422	2740	0006897	0025	14557								
		OBS	0030	0156	34216	2740			14557								
		STD	0050	0156	3434	2750	0005993	0038	14562								
		OBS	0050	0156	34336	2750			14562								
		STD	0075	0157	3441	2755	0005478	0053	14568								
		OBS	0075	0157	34406	2755			14568								
		STD	0100	0189	3450	2760	0005025	0066	14587								
		OBS	0100	0189	34498	2760			14587								
		STD	0125	0280	3463	2763	0004814	0078	14633								
		OBS	0125	0280	34626	2763			14633								
		STD	0150	0315	3467	2763	0004800	0090	14653								
		OBS	0150	0315	34672	2763			14653								
		STD	0200	0346	3478	2769	0004330	0113	14676								
		OBS	0200	0346	34779	2769			14676								
		STD	0250	0382	3486	2772	0004127	0134	14700								
		OBS	0250	0382	34860	2772			14700								
		STD	0300	0384	3489	2774	0003984	0154	14710								
		OBS	0300	0384	34888	2774			14710								
		STD	0400	0385	3490	2774	0003991	0194	14727								
		OBS	0400	0385	34901	2774			14727								
		STD	0500	0385	3492	2776	0003972	0234	14744								
		OBS	0500	0385	34916	2776			14744								
		STD	0600	0385	3491	2775	0004116	0274	14760								
		OBS	0600	0385	34909	2775			14760								
		STD	0700	0380	3491	2776	0004158	0316	14775								
		OBS	0700	0380	34908	2776			14775								
		STD	0800	0374	3490	2776	0004209	0358	14789								
		OBS	0800	0374	34904	2776			14789								
		STD	0900	0369	3491	2776	0004231	0400	14803								
		OBS	0900	0369	34905	2776			14803								
		STD	1000	0367	3491	2777	0004271	0442	14819								
		OBS	1000	0367	34908	2777			14819								
		STD	1100	0366	3492	2778	0004292	0485	14836								
		OBS	1100	0366	34915	2778			14836								
		STD	1200	0366	3492	2778	0004377	0528	14852								
		OBS	1200	0366	34915	2778			14852								
		STD	1300	0363	3493	2779	0004350	0572	14868								
		OBS	1300	0363	34925	2779			14868								
		STD	1400	0359	3493	2779	0004382	0616	14883								
		OBS	1400	0359	34925	2779			14883								
		STD	1500	0355	3494	2780	0004324	0659	14898								
		OBS	1500	0355	34937	2780			14898								

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HAUSSEN 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
						COLOR CODE	TRANS. (m)	DIR.		SPEED OR FORCE	BARO- METER (mba)			DRY BULB	WET BULB	VIS. CODE		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS				
318081	CO		4835 N	04607 W	149 86	05	18	145	1969	11P	10473	1187	11	24	3	3		X1	0	6	0010		

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	ROUTE	MARDEN 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
CTRY CODE	ID. NO.						MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	NGT	PER	SEA	TYPE	AMT	

318081	CO	4820 N	04605 W	149	86	05 18 169	1969	11P	10474	1134	11	25	3	3		X2	0	6		0011
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WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY RULR	WET RULR	VIS CODE
DT	SD	26	513	163	06	04	6

MESSAGE TIME HR 1/10	CAST NO.	CARGO 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 ₃ -N μg - dl/l	SiO ₂ -Si μg - dl/l	pH	S DU
169		STD	0000	0243	3396	2713	0009472	0000	14587								
		OBS	0000	0243	33959	2713			14587								
		STD	0010	0243	3396	2713	0009477	0009	14589								
		OBS	0010	0243	33959	2713			14589								
002		STD	0020	0241	3396	2713	0009459	0019	14590								
		OBS	0020	0241	33960	2713			14590								
		STD	0030	0217	3395	2714	0009323	0028	14581								
		OBS	0030	0217	33954	2714			14581								
		STD	0050	0151	3419	2738	0007042	0045	14558								
		OBS	0050	0151	34193	2738			14558								
		STD	0075	0310	3470	2766	0004518	0059	14639								
		OBS	0075	0310	34696	2766			14639								
		STD	0100	0338	3475	2767	0004388	0070	14655								
		OBS	0100	0338	34750	2767			14655								
		STD	0125	0370	3482	2770	0004192	0081	14674								
		STD	0150	0391	3487	2771	0004065	0091	14688								
		OBS	0150	0391	34868	2771			14688								
		STD	0200	0402	3490	2773	0003956	0111	14701								
		OBS	0200	0402	34904	2773			14701								
		STD	0250	0402	3492	2774	0003901	0131	14710								
		OBS	0250	0402	34918	2774			14710								
		STD	0300	0402	3492	2775	0003905	0151	14718								
		OBS	0300	0402	34924	2775			14718								
		STD	0400	0402	3493	2775	0003980	0190	14734								
		OBS	0400	0402	34927	2775			14734								
		STD	0500	0394	3492	2775	0004010	0230	14748								
		OBS	0500	0394	34924	2775			14748								
		STD	0600	0392	3493	2776	0004060	0270	14763								
		OBS	0600	0392	34927	2776			14763								
		STD	0700	0385	3492	2776	0004103	0311	14777								
		OBS	0700	0385	34923	2776			14777								
		STD	0800	0377	3492	2776	0004161	0352	14790								
		OBS	0800	0377	34915	2776			14790								
		STD	0900	0371	3491	2777	0004187	0394	14804								
		OBS	0900	0371	34914	2777			14804								
		STD	1000	0371	3492	2777	0004222	0436	14821								
		OBS	1000	0371	34921	2777			14821								
		STD	1100	0366	3493	2779	0004189	0478	14836								
		OBS	1100	0366	34929	2779			14836								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH M	MARSEN 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	IO. NO.					10°	1°	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA	TYPE		AMT			
318081		CO	48013N	046055W	149	86	05	18	208	1969		11P	10475		0732	07	29	2	4		X2	0	6	0012	
						WATER		WIND		BARO- METER		AIR TEMP. °C													
						COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	METER (mbal)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
						DT	SD	31	520	217			7	16											
MESSAGE TIME HR 1/10	CAST NO.	CARO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-σ _t		Σ Δ D OTN. 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	1 CC						
		STD	0000	0356	3410	2714		0009341		0000	14638														
208		OBS	0000	0356	34104	2714					14638														
		STD	0010	0356	3410	2714		0009349		0009	14640														
		OBS	0010	0356	34104	2714					14640														
		STD	0020	0356	3410	2714		0009356		0019	14641														
001		OBS	0020	0356	34104	2714					14641														
		STD	0030	0353	3411	2714		0009329		0028	14642														
		OBS	0030	0353	34105	2714					14642														
		STD	0050	0315	3411	2719		0008939		0046	14629														
		OBS	0050	0315	34113	2719					14629														
		STD	0075	0258	3419	2730		0007855		0067	14609														
		OBS	0075	0258	34194	2730					14609														
		STD	0100	0295	3440	2744		0006610		0085	14632														
		OBS	0100	0295	34403	2744					14632														
		OBS	0123	0280	34508	2753					14631														
		STD	0125	0287	3453	2754		0005599		0101	14635														
		STD	0150	0357	3474	2765		0004672		0113	14672														
		OBS	0150	0357	34742	2765					14672														
		STD	0200	0388	3487	2772		0004074		0135	14695														
		OBS	0200	0388	34869	2772					14695														
		STD	0250	0393	3490	2773		0003949		0155	14705														
		OBS	0250	0393	34899	2773					14705														
		STD	0300	0393	3491	2775		0003899		0175	14714														
		OBS	0300	0393	34912	2775					14714														
		STD	0400	0388	3492	2776		0003866		0214	14728														
		OBS	0400	0388	34922	2776					14728														
		STD	0500	0387	3492	2776		0003971		0253	14745														
		OBS	0500	0387	34919	2776					14745														
		STD	0600	0380	3492	2776		0003986		0293	14758														
		OBS	0600	0380	34919	2776					14758														
		STD	0700	0374	3492	2777		0004039		0333	14772														
		OBS	0700	0374	34915	2777					14772														

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPT 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		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT
318081	CO		47395N	046045W		149	76	05	19	007	1969	IIP	10476	0296	03	25	3	3		X2	06		0013
						WATER		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												
		DT		SD	31	S25		271	-02		-03	7		17									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ 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	COND.
		STD	0000	0463	3393	2689	0011701	0000	14681								
	007	OBS	0000	0463	33930	2689			14681								
		STD	0010	0462	3393	2689	0011701	0012	14682								
		OBS	0010	0462	33930	2689			14682								
		STD	0020	0462	3393	2690	0011681	0023	14684								
	002	OBS	0020	0462	33934	2690			14684								
		STD	0030	0462	3393	2690	0011691	0035	14685								
		OBS	0030	0462	33934	2690			14685								
		OBS	0040	0441	33924	2691			14678								
		STD	0050	0362	3410	2713	0009466	0056	14649								
		OBS	0050	0362	34100	2713			14649								
		OBS	0065	0474	34304	2718			14701								
		OBS	0068	0429	34404	2730			14684								
		STD	0075	0543	3456	2730	0007915	0078	14734								
		OBS	0075	0543	34564	2730			14734								
		OBS	0082	0606	34704	2733			14763								
		STD	0100	0513	3463	2739	0007078	0097	14727								
		OBS	0100	0513	34634	2739			14727								
		STD	0125	0400	3458	2747	0006324	0113	14683								
		OBS	0125	0400	34576	2747			14683								
		STD	0150	0337	3464	2759	0005216	0128	14662								
		OBS	0150	0337	34644	2759			14662								
		OBS	0178	0470	34824	2759			14725								
		STD	0200	0418	3476	2760	0005180	0154	14706								
		OBS	0200	0418	34763	2760			14706								
		STD	0250	0406	3486	2769	0004369	0178	14710								
		OBS	0250	0406	34861	2769			14710								
		OBS	0275	0403	34879	2771			14714								

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DEPT 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		NOOC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR, 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT
318081	CO		47198N	046078W		149	76	05	19	043	1969	IIP	10477	0292	03	32	3	3		X2	06		0014
						WATER		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												
		DT		SD	34	S20		312	03		03	7		12									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ 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	COND.
		STD	0000	0483	3394	2688	0011845	0000	14689								
	043	OBS	0000	0483	33939	2688			14689								
		STD	0010	0483	3394	2688	0011825	0012	14691								
		OBS	0010	0483	33943	2688			14691								
		STD	0020	0484	3394	2688	0011846	0024	14693								
	001	OBS	0020	0484	33943	2688			14693								
		STD	0030	0475	3392	2687	0011903	0036	14690								
		OBS	0030	0475	33924	2687			14690								
		OBS	0040	0437	33964	2695			14677								
		STD	0050	0480	3418	2707	0010042	0057	14699								
		OBS	0050	0480	34182	2707			14699								
		STD	0075	0373	3420	2720	0008808	0081	14659								
		OBS	0075	0373	34204	2720			14659								
		STD	0100	0382	3438	2733	0007601	0102	14669								
		OBS	0100	0382	34379	2733			14669								
		STD	0125	0391	3455	2746	0006428	0119	14679								
		STD	0150	0398	3468	2755	0005569	0134	14688								
		OBS	0150	0398	34677	2755			14688								
		STD	0200	0407	3482	2766	0004608	0160	14702								
		OBS	0200	0407	34824	2766			14702								
		STD	0250	0407	3487	2770	0004283	0182	14711								
		OBS	0250	0407	34874	2770			14711								
		OBS	0270	0405	34874	2770			14713								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARSDEN 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	IO. NO.					10"	1"	MO	DAY		HR, 1/10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318081	CO		47000N	046110W		149	76	05	19	071	1969	IIP	10478	0289	03	32	3	3		X2	0	6	0015
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB														
		DT	SD	33	515	342	03	02	7	20													
MESSAGE# TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?		Σ Δ σ CYN. 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	0499	3395	2687	0011934		0000	14696													
071		OBS	0000	0499	33950	2687				14696													
		STD	0010	0495	3395	2687	0011916		0012	14696													
		OBS	0010	0495	33948	2687				14696													
		STD	0020	0495	3395	2687	0011934		0024	14697													
002		OBS	0020	0495	33947	2687				14697													
		STD	0030	0493	3395	2687	0011931		0036	14698													
		OBS	0030	0493	33946	2687				14698													
		STD	0050	0485	3394	2688	0011881		0060	14698													
		OBS	0050	0485	33944	2688				14698													
		OBS	0060	0328	34004	2709				14634													
		OBS	0069	0403	34204	2717				14670													
		OBS	0072	0375	34244	2723				14660													
		STD	0075	0418	3436	2728	0008051		0085	14680													
		OBS	0075	0418	34364	2728				14680													
		OBS	0080	0405	34364	2730				14675													
		STD	0100	0530	3465	2739	0007123		0103	14734													
		OBS	0100	0530	34654	2739				14734													
		OBS	0124	0518	34734	2746				14734													
		STD	0125	0529	3475	2746	0006424		0120	14739													
		OBS	0135	0543	34760	2746				14747													
		OBS	0140	0487	34689	2747				14724													
		STD	0150	0494	3475	2750	0006069		0136	14729													
		OBS	0150	0494	34748	2750				14729													
		OBS	0185	0473	34779	2755				14727													
		STD	0200	0434	3480	2761	0005096		0164	14713													
		OBS	0200	0434	34797	2761				14713													
		OBS	0214	0420	34788	2762				14709													
		STD	0250	0408	3485	2768	0004480		0188	14711													
		OBS	0250	0408	34849	2768				14711													
		OBS	0260	0408	34843	2767				14713													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH OF BOTTOM	MAX. DEPTH OF S'AMPL'S	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
318081	CO		4700 N	04631 W		149	76	05	19	091	1969	IIP	10479	0344	03	31	4	3		X2	0	6	0016
						WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB					WET BULB							
						DT	SD	32	S20	369	03	02	7	13									
MESSAGE TIME HR 1/10	CAS 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 - 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	0488	3395	2688	0011853		0000	14691													
091		OBS	0000	0488	33945	2688				14691													
		STD	0010	0489	3395	2687	0011874		0012	14693													
		OBS	0010	0489	33945	2687				14693													
		STD	0020	0489	3395	2687	0011877		0024	14695													
001		OBS	0020	0489	33946	2687				14695													
		STD	0030	0489	3395	2688	0011880		0036	14697													
		OBS	0030	0489	33947	2688				14697													
		STD	0050	0457	3397	2693	0011403		0059	14687													
		OBS	0050	0457	33968	2693				14687													
		OBS	0069	0432	34104	2706				14681													
		STD	0075	0515	3432	2714	0009421		0085	14720													
		OBS	0075	0515	34320	2714				14720													
		STD	0100	0663	3473	2727	0008227		0107	14789													
		OBS	0100	0663	34725	2727				14789													
		STD	0125	0623	3475	2735	0007565		0127	14777													
		STD	0150	0570	3477	2743	0006824		0145	14760													
		OBS	0150	0570	34766	2743				14760													
		STD	0200	0428	3475	2758	0005354		0175	14710													
		OBS	0200	0428	34754	2758				14710													
		STD	0250	0416	3485	2767	0004528		0200	14715													
		OBS	0250	0416	34854	2767				14715													
		STD	0300	0405	3489	2771	0004228		0222	14719													
		OBS	0300	0405	34885	2771				14719													
		OBS	0320	0398	34894	2773				14719													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	NODC STATION NUMBER	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
CTRY CODE	ID. NO.					10°	1°	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA		TYPE	AMT	
318081		CO	47015N	046486W		149	76	05	19	109	1969	IIP	10480	0558	05	34	5	3		X2	0	6	0017
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	34	S12	379	04	02	7	17															
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ D 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	Si O ₄ -Si μg - at/l	pH							
109		STD	0000	0347	3380	2691	0011543	0000	14630														
		OBS	0000	0347	33801	2691			14630														
001		STD	0010	0347	3380	2691	0011551	0012	14632														
		OBS	0010	0347	33801	2691			14632														
		STD	0020	0347	3380	2691	0011558	0023	14633														
		OBS	0020	0347	33801	2691			14633														
		STD	0030	0347	3380	2691	0011580	0035	14635														
		OBS	0030	0347	33799	2691			14635														
		OBS	0040	0340	33774	2689			14633														
		STD	0050	0211	3401	2719	0008870	0055	14582														
		OBS	0050	0211	34009	2719			14582														
		STD	0075	0227	3426	2738	0007076	0075	14597														
		OBS	0075	0227	34264	2738			14597														
		STD	0100	0287	3446	2749	0006080	0091	14630														
		OBS	0100	0287	34464	2749			14630														
		OBS	0110	0268	34514	2755			14624														
		STD	0125	0416	3476	2760	0005107	0105	14693														
		OBS	0140	0444	34814	2761			14708														
		STD	0150	0396	3475	2761	0005031	0118	14688														
		OBS	0150	0396	34746	2761			14688														
		STD	0200	0479	3492	2766	0004672	0142	14733														
		OBS	0200	0479	34920	2766			14733														
		STD	0250	0434	3491	2770	0004281	0165	14723														
		OBS	0250	0434	34913	2770			14723														
		STD	0300	0428	3491	2771	0004267	0186	14729														
		OBS	0300	0428	34913	2771			14729														
		STD	0400	0406	3491	2773	0004120	0228	14736														
		OBS	0400	0406	34914	2773			14736														
		STD	0500	0387	3491	2775	0004046	0269	14744														
		OBS	0500	0387	34909	2775			14744														
		OBS	0528	0384	34910	2775			14748														

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WIND DIRECTION	MARSO SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER	
					10°	1°	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318081	CO	4700 N	04701 W		149	77	05	19	164	1969	IIP	10481	1010	10	33	4	3		X1	0 6	0018
					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										
					DT	SD	00	500	383	06	04	7	20								

MESSENGER TIME HR 1/10	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	ST C
164	STD	0000	0386	3372	2681	0012485	0000	14646								
	OBS	0000	0386	33724	2681			14646								
	STD	0010	0351	3377	2688	0011858	0012	14633								
	OBS	0010	0351	33765	2688			14633								
	STD	0020	0350	3377	2688	0011834	0024	14634								
002	OBS	0020	0350	33768	2688			14634								
	STD	0030	0348	3377	2689	0011777	0036	14635								
	OBS	0030	0348	33774	2689			14635								
	STD	0050	0219	3408	2725	0008363	0056	14587								
	OBS	0050	0219	34084	2725			14587								
	STD	0075	0218	3426	2739	0007043	0075	14593								
	OBS	0075	0218	34259	2739			14593								
	STD	0100	0292	3447	2749	0006093	0092	14632								
	OBS	0100	0292	34468	2749			14632								
	OBS	0110	0275	34504	2753			14627								
	STD	0125	0370	3464	2756	0005514	0106	14672								
	OBS	0125	0370	34644	2756			14672								
	STD	0150	0309	3466	2763	0004805	0119	14650								
	OBS	0150	0309	34664	2763			14650								
	STD	0200	0387	3485	2770	0004191	0142	14694								
	OBS	0200	0387	34852	2770			14694								
	STD	0250	0393	3488	2772	0004091	0162	14705								
	STD	0300	0397	3491	2774	0003979	0182	14715								
	OBS	0300	0397	34907	2774			14715								
	STD	0400	0397	3493	2775	0003940	0222	14732								
	OBS	0400	0397	34925	2775			14732								
	STD	0500	0394	3493	2776	0003973	0262	14748								
	OBS	0500	0394	34929	2776			14748								
	STD	0600	0386	3493	2776	0003993	0301	14761								
	OBS	0600	0386	34927	2776			14761								
	STD	0700	0377	3490	2776	0004154	0342	14773								
	OBS	0700	0377	34904	2776			14773								
	STD	0800	0370	3491	2777	0004126	0384	14787								
	OBS	0800	0370	34909	2777			14787								
	STD	0900	0368	3492	2778	0004093	0425	14803								
	OBS	0900	0368	34922	2778			14803								
	STD	1000	0368	3492	2778	0004179	0466	14820								
	OBS	1000	0368	34922	2778			14820								
	OBS	1008	0368	34923	2778			14821								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DPT. MDCR	MARSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		MOOC STATION NUMBER
CTRY CODE	IO. NO.						10"	1"	MO		OAT	NR.1/10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA	
318081		CO	4700 N	04714 W		149 77	05	19	183	1969	IIP	10482	1225	12	33	4	3		X2	0	6	0019
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB										
						DT	SD	20	SOS	369	06	04	7	20								

MESSNGR TIME MR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t 10 ³	Σ Δ σ 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	SiO ₄ -Si μg - ml/l	pH	S C
183		STD	0000	0238	3380	2700	0010667	0000	14583								
		OBS	0000	0238	33796	2700			14583								
		STD	0010	0205	3382	2704	0010279	0010	14570								
		OBS	0010	0205	33815	2704			14570								
		STD	0020	0201	3382	2705	0010238	0021	14570								
002		OBS	0020	0201	33817	2705			14570								
		STD	0030	0190	3386	2709	0009805	0031	14568								
		OBS	0030	0190	33864	2709			14568								
		STD	0050	0218	3410	2726	0008272	0049	14586								
		OBS	0050	0218	34095	2726			14586								
		STD	0075	0185	3411	2729	0007913	0069	14576								
		OBS	0075	0185	34111	2729			14576								
		STD	0100	0185	3432	2746	0006326	0087	14583								
		OBS	0100	0185	34322	2746			14583								
		STD	0125	0224	3448	2756	0005445	0102	14607								
		STD	0150	0262	3460	2762	0004855	0114	14629								
		OBS	0150	0262	34602	2762			14629								
		STD	0200	0335	3475	2767	0004449	0138	14671								
		OBS	0200	0335	34749	2767			14671								
		STD	0250	0380	3485	2771	0004189	0159	14699								
		OBS	0250	0380	34849	2771			14699								
		STD	0300	0399	3490	2773	0004082	0180	14716								
		OBS	0300	0399	34896	2773			14716								
		STD	0400	0405	3492	2774	0004042	0221	14736								
		OBS	0400	0405	34923	2774			14736								
		STD	0500	0405	3493	2774	0004125	0261	14752								
		OBS	0500	0405	34925	2774			14752								
		STD	0600	0401	3493	2775	0004169	0303	14767								
		OBS	0600	0401	34926	2775			14767								
		STD	0700	0400	3494	2776	0004186	0345	14783								
		OBS	0700	0400	34935	2776			14783								
		STD	0800	0394	3493	2776	0004247	0387	14797								
		OBS	0800	0394	34930	2776			14797								
		STD	0900	0386	3493	2776	0004282	0429	14811								
		OBS	0900	0386	34925	2776			14811								
		STD	1000	0376	3492	2777	0004289	0472	14823								
		OBS	1000	0376	34920	2777			14823								
		STD	1100	0374	3492	2777	0004337	0515	14839								
		OBS	1100	0374	34922	2777			14839								
		OBS	1180	0371	34925	2778			14851								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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
CTRY CODE	ID. NO.					10"	1"	MD	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081	CO	4700 N	04731 W	149	77	05	19	210	1969	IIP	10483		0603	06	31	5	3		X2	0	6	0020
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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			

OT	SD	20	S10	369	02	01	7	16	
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MESSNGR TIME HR 1/10	CARD NO.	CARD 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 $\mu\text{g} - \text{at/l}$	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	S
210	STD	0000	0179	3319	2656	0014823	0000	14549									
	OBS	0000	0179	33191	2656			14549									
	STD	0010	0116	3319	2660	0014441	0015	14522									
	OBS	0010	0116	33188	2660			14522									
003	STD	0020	0103	3319	2662	0014318	0029	14518									
	OBS	0020	0103	33194	2662			14518									
	STD	0030	0075	3320	2664	0014089	0043	14507									
	OBS	0030	0075	33203	2664			14507									
	OBS	0048	-0046	33624	2704			14461									
	STD	0050	-0025	3364	2705	0010222	0068	14471									
	OBS	0050	-0025	33644	2705			14471									
	OBS	0065	-0049	33704	2710			14463									
	STD	0075	0056	3377	2711	0009650	0092	14514									
	OBS	0075	0056	33772	2711			14514									
	STD	0100	0087	3391	2720	0008821	0115	14534									
	OBS	0100	0087	33905	2720			14534									
	STD	0125	0088	3403	2730	0007877	0136	14540									
	STD	0150	0088	3415	2739	0006942	0155	14546									
	OBS	0150	0088	34154	2739			14546									
	STD	0200	0193	3439	2751	0005898	0187	14604									
	OBS	0200	0193	34392	2751			14604									
	STD	0250	0250	3455	2759	0005194	0215	14640									
	OBS	0250	0250	34551	2759			14640									
	STD	0300	0306	3465	2763	0004961	0240	14673									
	OBS	0300	0306	34654	2763			14673									
	STD	0400	0379	3483	2770	0004435	0287	14723									
	OBS	0400	0379	34833	2770			14723									
	STD	0500	0405	3491	2773	0004221	0330	14752									
	OBS	0500	0405	34912	2773			14752									
	STD	0600	0405	3493	2775	0004184	0372	14769									
	OBS	0600	0405	34930	2775			14769									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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
CTRY CODE	ID. NO.					10"	1"	MD	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081	CO	46598N	047469W	149	67	05	19	231	1969	IIP	10484		0183	02	21	4	3		X2	0	6	0021
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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			

OT	SD	20	S12	356	02	01	7	12	
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MESSNGR TIME HR 1/10	CARD NO.	CARD 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 $\mu\text{g} - \text{at/l}$	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	S
231	STD	0000	0134	3293	2639	0016483	0000	14525									
	OBS	0000	0134	32934	2639			14525									
	STD	0010	0085	3295	2643	0016042	0016	14505									
	OBS	0010	0085	32954	2643			14505									
002	STD	0020	0074	3303	2650	0015386	0032	14503									
	OBS	0020	0074	33032	2650			14503									
	STD	0030	0072	3305	2652	0015222	0047	14504									
	OBS	0030	0072	33052	2652			14504									
	OBS	0038	-0047	33154	2666			14452									
	STD	0050	-0052	3328	2676	0012890	0075	14453									
	OBS	0050	-0052	33280	2676			14453									
	STD	0075	-0034	3340	2685	0012061	0107	14467									
	OBS	0075	-0034	33397	2685			14467									
	STD	0100	0005	3354	2695	0011113	0136	14492									
	OBS	0100	0005	33544	2695			14492									
	OBS	0115	0024	33616	2700			14504									
	STD	0125	0007	3370	2708	0009900	0162	14499									
	OBS	0125	0007	33704	2708			14499									
	STD	0150	0101	3399	2726	0008268	0185	14549									
	OBS	0150	0101	33990	2726			14549									
	OBS	0175	0104	33996	2726			14555									

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DRAFT 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	
318081	CO		47004N	048025W		149	78	05	20	007	1969	IIP	10485	0163	01	21	4	3		X1	0	6	0022
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. CM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE											
						DT	SD	19	S15	339	02	01	7										08
MESSAGE TIME HR 1/10	CARD 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 ₂ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	1 CODE			
		STD	0000	0117	3298	2644	0016022		0000		14518												
	007	OBS	0000	0117	32981	2644					14518												
		STD	0010	0117	3298	2644	0016014		0016		14520												
		OBS	0010	0117	32982	2644					14520												
	000	STD	0020	0116	3298	2644	0016009		0032		14521												
		OBS	0020	0116	32982	2644					14521												
		STD	0030	0099	3298	2644	0015953		0048		14515												
		OBS	0030	0099	32976	2644					14515												
		STD	0050	0060	3301	2650	0015443		0079		14501												
		OBS	0050	0060	33014	2650					14501												
		STD	0075	-0038	3330	2678	0012754		0115		14464												
		OBS	0075	-0038	33304	2678					14464												
		STD	0100	-0009	3341	2685	0012082		0146		14483												
		OBS	0100	-0009	33408	2685					14483												
		STD	0125	0023	3357	2696	0011003		0175		14504												
		OBS	0140	0043	33704	2706					14518												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DPT FOOT	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.1/10	CRUISE NO.			STATION NUMBER	OBS.				TYPE	AMT		
																	DIR	HGT	PER					SEA
318081	CO		46595N	048145W		149	68	05	20	027	1969	IIP	10486	0128	01	21	4	3		X2	0	6		0023
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. SM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB													
						DT	SD	19	S15	328	03	02	7							09				
MESSAGE TIME HR 1/10	CARD 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 ₂ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S CODE				
		STD	0000	0088	3301	2648		0015610		0000		14505												
	027	OBS	0000	0088	33013	2648						14505												
		STD	0010	0089	3301	2648		0015623		0016		14508												
		OBS	0010	0089	33012	2648						14508												
	000	STD	0020	0088	3301	2648		0015647		0031		14509												
		OBS	0020	0088	33008	2648						14509												
		STD	0030	0078	3301	2649		0015544		0047		14506												
		OBS	0030	0078	33014	2649						14506												
		STD	0050	0025	3306	2655		0014882		0077		14486												
		OBS	0050	0025	33064	2655						14486												
		OBS	0055	-0023	33191	2668						14466												
		STD	0075	-0032	3329	2676		0012902		0112		14467												
		OBS	0075	-0032	33288	2676						14467												
		STD	0100	0004	3356	2696		0010994		0142		14491												
		OBS	0100	0004	33559	2696						14491												
		OBS	0105	0005	33634	2702						14494												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE INDEX	MARS DEN SQUARE	STATION TIME IGMT		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THE- R CODE	CLOUD CODES		NODC STATION NUMBER																															
CTRY CODE	ID. NO.						MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT																														
318081	CO	4700 N	04829 W	149	78 05 20	041	1969	IIP	10487	0128	01 35	4 3			X2	0 6		0024																																		
<table><tr><th colspan="3">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO-METER</th><th colspan="2">AIR TEMP. °C</th><th rowspan="2">VIS. CODE</th><th rowspan="2">NO. OBS. DEPTHS</th><th rowspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS. IMI</th><th>DIR.</th><th>SPEED OR FORCE</th><th>IMBAL</th><th>DRY BULB</th><th>WET BULB</th><th></th><th></th></tr><tr><td>DT</td><td>SO</td><td>19</td><td>S18</td><td>298</td><td>04</td><td>03</td><td>4</td><td>08</td><td></td><td></td><td></td></tr></table>																				WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	IMBAL	DRY BULB	WET BULB			DT	SO	19	S18	298	04	03	4	08			
WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																									
COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	IMBAL	DRY BULB	WET BULB																																														
DT	SO	19	S18	298	04	03	4	08																																												

MESSNGR	CAST	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SIO ₄ -Si	pH	ST
TIME	NO.	TYPE					ANOMALY-σ _T	DTN. M. X 10 ³	VELOCITY		μg - ol/l	μg - ol/l	μg - ol/l	μg - ol/l	μg - ol/l		CODE
HR 1/10																	
		STD	0000	0178	3298	2639	0016441	0000	14545								
	041	OBS	0000	0178	32977	2639			14545								
		STD	0010	0179	3298	2639	0016450	0016	14547								
		OBS	0010	0179	32977	2639			14547								
		STD	0020	0158	3297	2640	0016356	0033	14540								
	001	OBS	0020	0158	32971	2640			14540								
		STD	0030	0153	3298	2641	0016264	0049	14539								
		OBS	0030	0153	32979	2641			14539								
		OBS	0044	0153	32984	2641			14541								
		STD	0050	0100	3299	2646	0015821	0081	14519								
		OBS	0050	0100	32994	2646			14519								
		STD	0075	0001	3319	2667	0013799	0118	14481								
		OBS	0075	0001	3249P	2610P											
		STD	0100	0007	3362	2701	0010514	0149	14494								
		OBS	0100	0007	33624	2701			14494								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT METER	MARS 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.						CRUISE NO.	STATION NUMBER		10" 1"	MD DAY HR.1/10							CRUISE NO.	STATION NUMBER																															
318081	CO	4512 N	04852 W	149	58 05 20	129	1969	IIP	10488	0201	02	24	3 2		X4	0 6	0025																																	
<table><tr><th colspan="3">WATER</th><th colspan="2">WIND</th><th colspan="2">BARO-METER</th><th colspan="2">AIR TEMP. °C</th><th rowspan="2">VIS. CODE</th><th rowspan="2">NO. OBS. DEPTHS</th><th rowspan="2">SPECIAL OBSERVATIONS</th></tr><tr><th>COLOR CODE</th><th>TRANS. IMI</th><th>DIR.</th><th>SPEED OR FORCE</th><th>IMBAL</th><th>DRY BULB</th><th>WET BULB</th><th></th><th></th></tr><tr><td>DT</td><td>SO</td><td>24</td><td>S18</td><td>271</td><td>07</td><td>06</td><td>4</td><td>09</td><td></td><td></td><td></td></tr></table>																		WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS	COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	IMBAL	DRY BULB	WET BULB			DT	SO	24	S18	271	07	06	4	09			
WATER			WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS																																							
COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE	IMBAL	DRY BULB	WET BULB																																												
DT	SO	24	S18	271	07	06	4	09																																										

MESSNGR	CAST	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SIO ₄ -Si	pH	ST
TIME	NO.	TYPE					ANOMALY-σ _T	DTN. M. X 10 ³	VELOCITY		μg - ol/l	μg - ol/l	μg - ol/l	μg - ol/l	μg - ol/l		CODE
HR 1/10																	
		STD	0000	0149	3303	2645	0015855	0000	14533								
	129	OBS	0000	0149	33029	2645			14533								
		STD	0010	0144	3302	2645	0015877	0016	14532								
		OBS	0010	0144	33022	2645			14532								
		STD	0020	0098	3311	2655	0014913	0031	14515								
	000	OBS	0020	0098	33112	2655			14515								
		STD	0030	0047	3318	2664	0014097	0046	14494								
		OBS	0030	0047	33182	2664			14494								
		STD	0050	-0005	3328	2674	0013076	0073	14475								
		OBS	0050	-0005	33282	2674			14475								
		STD	0075	-0021	3345	2689	0011706	0104	14474								
		OBS	0075	-0021	33451	2689			14474								
		STD	0100	-0014	3347	2690	0011571	0133	14482								
		OBS	0100	-0014	33472	2690			14482								
		STD	0125	-0013	3347	2690	0011561	0162	14486								
		STD	0150	-0012	3347	2690	0011559	0191	14491								
		OBS	0150	-0012	33473	2690			14491								
		STD	0200	-0011	3348	2691	0011483	0248	14500								
		OBS	0200	-0011	33482	2691			14500								

REFERENCE	SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		MOOC STATION NUMBER
					10"	1"	MD	OAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081 CO 4519 N 04832 W 149 58 05 20 150 1969 IIP 10489 0585 05 23 2 3														
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	SU	22	S20	257	06	06	0	17						

MESSAGE TIME HR 1/10	CARD 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 $\mu\text{g} - \text{dl/l}$	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	3 C
		STD	0000	0125	3311	2654	0015059	0000	14523								
150		OBS	0000	0125	33114	2654			14523								
		STD	0010	0123	3312	2654	0015016	0015	14524								
		OBS	0010	0123	33118	2654			14524								
		STD	0020	0092	3314	2658	0014688	0030	14512								
001		OBS	0020	0092	33137	2658			14512								
		STD	0030	0079	3314	2659	0014568	0045	14508								
		OBS	0030	0079	33143	2659			14508								
		STD	0050	0074	3315	2660	0014454	0074	14509								
		OBS	0050	0074	33154	2660			14509								
		STD	0075	-0053	3339	2685	0012027	0107	14459								
		OBS	0075	-0053	33391	2685			14459								
		OBS	0087	-0054	33579	2701			14463								
		STD	0100	-0007	3362	2702	0010445	0135	14487								
		OBS	0100	-0007	33624	2702			14487								
		OBS	0120	0054	33732	2708			14520								
		STD	0125	0056	3374	2708	0009891	0160	14522								
		STD	0150	0063	3376	2710	0009764	0185	14529								
		OBS	0150	0063	33762	2710			14529								
		STD	0200	0078	3384	2715	0009233	0232	14545								
		OBS	0200	0078	33844	2715			14545								
		STD	0250	0083	3388	2718	0008987	0278	14556								
		OBS	0250	0083	33881	2718			14556								
		STD	0300	0111	3402	2728	0008106	0320	14579								
		OBS	0300	0111	34023	2728			14579								
		OBS	0345	0278	34602	2761			14668								
		STD	0400	0320	3468	2763	0004960	0386	14696								
		OBS	0400	0320	34682	2763			14696								
		STD	0500	0384	3484	2770	0004535	0433	14742								
		OBS	0500	0384	34839	2770			14742								
		OBS	0550	0387	34851	2770			14752								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	NODC STATION NUMBER	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		
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT	
318081	CO		4519 N	04818 W		149	58	05	20	165	1969	IIP	10490	1244	12	24	3	3		X4	0	6		0027
		WATER		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	24	526	251	07	06	1	24																
MESSNGR TIME HR 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 $\mu\text{g} - \text{dl/l}$	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	1 C							
		STD	0000	0092	3319	2662	0014262	0000	14510															
165		OBS	0000	0092	33193	2662			14510															
		STD	0010	0092	3319	2662	0014270	0014	14511															
		OBS	0010	0092	33192	2662			14511															
		STD	0020	0092	3319	2662	0014269	0029	14513															
003		OBS	0020	0092	33192	2662			14513															
		STD	0030	0077	3319	2663	0014176	0043	14508															
		OBS	0030	0077	33193	2663			14508															
		STD	0050	0025	3321	2667	0013753	0071	14488															
		OBS	0050	0025	33212	2667			14488															
		OBS	0058	-0013	33363	2681			14474															
		OBS	0065	0012	33487	2690			14488															
		STD	0075	-0012	3355	2697	0010976	0102	14480															
		OBS	0075	-0012	33552	2697			14480															
		STD	0100	0003	3379	2715	0009244	0127	14494															
		OBS	0100	0003	33788	2715			14494															
		STD	0125	0062	3384	2716	0009163	0150	14525															
		OBS	0144	0106	33943	2721			14550															
		STD	0150	0083	3399	2727	0008154	0172	14541															
		OBS	0150	0083	33990	2727			14541															
		STD	0200	0173	3428	2744	0006567	0208	14594															
		OBS	0200	0173	34283	2744			14594															
		STD	0250	0227	3448	2755	0005555	0239	14629															
		OBS	0250	0227	34477	2755			14629															
		STD	0300	0326	3468	2763	0004973	0265	14682															
		OBS	0300	0326	34678	2763			14682															
		STD	0400	0387	3482	2768	0004602	0313	14727															
		OBS	0400	0387	34822	2768			14727															
		STD	0500	0404	3488	2771	0004449	0358	14751															
		OBS	0500	0404	34880	2771			14751															
		STD	0600	0404	3489	2772	0004441	0403	14768															
		OBS	0600	0404	34894	2772			14768															
		STD	0700	0403	3490	2772	0004510	0447	14784															
		OBS	0700	0403	34896	2772			14784															
		STD	0800	0397	3490	2773	0004534	0493	14798															
		OBS	0800	0397	34896	2773			14798															
		STD	0900	0394	3490	2773	0004598	0538	14814															
		OBS	0900	0394	34895	2773			14814															
		STD	1000	0390	3490	2773	0004641	0584	14829															
		OBS	1000	0390	34895	2773			14829															
		STD	1100	0385	3489	2774	0004692	0631	14843															
		OBS	1100	0385	34892	2774			14843															
		STD	1200	0381	3489	2774	0004745	0678	14858															
		OBS	1200	0381	34890	2774			14858															
		OBS	1220	0380	34891	2774			14861															

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	HARDEN 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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

318081	CO	4518 N	04804 W	149	58	05	20	184	1969	IIP	10491	1536	15	24	3	3			X4	0	6	0028
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WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB			

DT	SO	24	S25	247	06	05	0	23		
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MESSAGE TIME HR 1/10	CAST 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 - at/l	TOTAL-P μg - at/l	NO ₃ -N μg - at/l	NO ₃ -N μg - at/l	Si D ₄ -Si μg - at/l	pH
184		STD	0000	0179	3353	2683	0012243	0000	14553							
		OBS	0000	0179	33531	2683			14553							
		STD	0010	0178	3355	2685	0012080	0012	14555							
		OBS	0010	0178	33552	2685			14555							
005		STD	0020	0192	3365	2692	0011476	0024	14564							
		OBS	0020	0192	33645	2692			14564							
		STD	0030	0190	3373	2699	0010805	0035	14566							
		OBS	0030	0190	33732	2699			14566							
		STD	0050	0188	3390	2712	0009540	0055	14570							
		OBS	0050	0188	33898	2712			14570							
		STD	0075	0162	3406	2727	0008119	0077	14565							
		OBS	0075	0162	34062	2727			14565							
		STD	0100	0173	3414	2733	0007592	0097	14575							
		OBS	0100	0173	34143	2733			14575							
		STD	0125	0218	3441	2751	0005926	0114	14603							
		STD	0150	0258	3460	2762	0004858	0128	14627							
		OBS	0150	0258	34597	2762			14627							
		STD	0200	0327	3470	2764	0004763	0152	14666							
		OBS	0200	0327	34697	2764			14666							
		STD	0250	0375	3481	2768	0004422	0175	14697							
		OBS	0250	0375	34811	2768			14697							
		STD	0300	0396	3485	2769	0004387	0197	14714							
		OBS	0300	0396	34851	2769			14714							
		STD	0400	0404	3489	2772	0004270	0240	14735							
		OBS	0400	0404	34891	2772			14735							
		STD	0500	0404	3490	2773	0004277	0283	14751							
		OBS	0500	0404	34903	2773			14751							
		STD	0600	0400	3490	2773	0004351	0326	14766							
		OBS	0600	0400	34900	2773			14766							
		STD	0700	0398	3490	2773	0004415	0370	14782							
		OBS	0700	0398	34901	2773			14782							
		STD	0800	0391	3490	2774	0004449	0414	14796							
		OBS	0800	0391	34898	2774			14796							
		STD	0900	0386	3490	2774	0004504	0459	14810							
		OBS	0900	0386	34895	2774			14810							
		STD	1000	0381	3489	2774	0004556	0504	14825							
		OBS	1000	0381	34892	2774			14825							
		STD	1100	0377	3489	2775	0004595	0550	14840							
		OBS	1100	0377	34892	2775			14840							
		STD	1200	0374	3489	2775	0004629	0596	14855							
		OBS	1200	0374	34894	2775			14855							
		STD	1300	0369	3490	2776	0004579	0642	14870							
		OBS	1300	0369	34904	2776			14870							
		STD	1400	0367	3492	2778	0004542	0687	14886							
		OBS	1400	0367	34917	2778			14886							
		STD	1500	0366	3493	2778	0004546	0733	14903							
		OBS	1500	0366	34926	2778			14903							

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DOBT PROCT	MARSOEN 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
CITY CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	45186N	04742 W		149	57	05	20	217	1969	IIP	10492		2242	15	24	3	2		X4	0	6	0029
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mb)	DRY RULE	WET RULE												
						DT	SD	24	S23	254	06	06	0	24										
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTN (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 $\mu\text{g} \cdot \text{at/l}$	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	3 C						
217		STD	0000	0208	3363	2689	0011707		0000	14567														
		OBS	0000	0208	33629	2689				14567														
		STD	0010	0207	3363	2689	0011703		0012	14569														
005		OBS	0010	0207	33629	2689				14569														
		STD	0020	0197	3361	2688	0011785		0023	14566														
		OBS	0020	0197	33609	2688				14566														
		STD	0030	0105	3377	2708	0009936		0034	14529														
		OBS	0030	0105	33772	2708				14529														
		STD	0050	0225	3433	2744	0006534		0051	14593														
		OBS	0050	0225	34332	2744				14593														
		STD	0075	0638	3471	2729	0008002		0069	14774														
		OBS	0075	0638	34707	2729				14774														
		OBS	0090	0645	34790	2735				14781														
		STD	0100	0600	3469	2733	0007667		0089	14763														
		OBS	0100	0600	34693	2733				14763														
		STD	0125	0545	3479	2748	0006313		0106	14746														
		STD	0150	0499	3484	2757	0005407		0121	14732														
		OBS	0150	0499	34844	2757				14732														
		STD	0200	0436	3483	2763	0004893		0146	14714														
		OBS	0200	0436	34827	2763				14714														
		STD	0250	0413	3484	2767	0004601		0170	14713														
		OBS	0250	0413	34840	2767				14713														
		STD	0300	0406	3486	2769	0004463		0193	14719														
		OBS	0300	0406	34855	2769				14719														
		STD	0400	0400	3487	2770	0004383		0237	14733														
		OBS	0400	0400	34870	2770				14733														
		STD	0500	0394	3488	2771	0004376		0281	14747														
		OBS	0500	0394	34875	2771				14747														
		STD	0600	0389	3489	2773	0004339		0324	14761														
		OBS	0600	0389	34885	2773				14761														
		STD	0700	0387	3489	2773	0004364		0368	14777														
		OBS	0700	0387	34891	2773				14777														
		STD	0800	0382	3489	2774	0004419		0412	14792														
		OBS	0800	0382	34888	2774				14792														
		STD	0900	0377	3489	2774	0004450		0456	14806														
		OBS	0900	0377	34888	2774				14806														
		STD	1000	0377	3489	2774	0004515		0501	14823														
		OBS	1000	0377	34891	2774				14823														
		STD	1100	0375	3490	2775	0004541		0546	14839														
		OBS	1100	0375	34896	2775				14839														
		STD	1200	0373	3490	2776	0004544		0592	14855														
		OBS	1200	0373	34904	2776				14855														
		STD	1300	0370	3491	2776	0004569		0637	14871														
		OBS	1300	0370	34907	2776				14871														
		STD	1400	0369	3491	2777	0004604		0683	14887														
		OBS	1400	0369	34912	2777				14887														
		STD	1500	0369	3492	2777	0004650		0729	14904														
		OBS	1500	0369	34917	2777				14904														

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'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
					10°	1°	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081 CO 4519 N 04723 W 149 57 05 20 238 1969 IIP 10493 2560 15 24 3 3 X4 0 6 0030

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			

DT SO 25 S21 261 06 05 1 20

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-3107	$\Sigma \Delta$ D OYAL, M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P µg - 01/l	TOTAL-P µg - 01/l	NO ₃ -N µg - 01/l	NO ₃ -N µg - 01/l	Si O ₄ -Si µg - 01/l	pH	NOCC
238	STD		0000	0530	3394	2683	0012320	0000	14708								
	OBS		0000	0530	33944	2683			14708								
005	STD		0010	0530	3394	2683	0012331	0012	14710								
	OBS		0010	0530	33944	2683			14710								
	STD		0020	0530	3394	2682	0012358	0025	14712								
	OBS		0020	0530	33942	2682			14712								
	STD		0030	0552	3404	2688	0011870	0037	14724								
	OBS		0030	0552	34042	2688			14724								
	STD		0050	0545	3414	2696	0011065	0060	14725								
	OBS		0050	0545	34142	2696			14725								
	STD		0075	0625	3451	2716	0009278	0085	14767								
	OBS		0075	0625	34514	2716			14767								
	STD		0100	0506	3459	2737	0007313	0106	14724								
	OBS		0100	0506	34592	2737			14724								
	STD		0125	0490	3467	2745	0006578	0123	14722								
	STD		0150	0477	3473	2751	0005983	0139	14722								
	OBS		0150	0477	34734	2751			14722								
	STD		0200	0462	3483	2761	0005140	0167	14725								
	OBS		0200	0462	34832	2761			14725								
	STD		0250	0449	3489	2767	0004609	0191	14729								
	OBS		0250	0449	34891	2767			14729								
	STD		0300	0466	3494	2769	0004459	0214	14745								
	OBS		0300	0466	34944	2769			14745								
	STD		0400	0443	3494	2771	0004360	0258	14752								
	OBS		0400	0443	34937	2771			14752								
	STD		0500	0420	3495	2775	0004106	0300	14759								
	OBS		0500	0420	34950	2775			14759								
	STD		0600	0408	3495	2776	0004077	0341	14770								
	OBS		0600	0408	34949	2776			14770								
	STD		0700	0404	3495	2777	0004098	0382	14785								
	OBS		0700	0404	34953	2777			14785								
	STD		0800	0391	3494	2777	0004123	0423	14796								
	OBS		0800	0391	34942	2777			14796								
	STD		0900	0389	3495	2778	0004169	0465	14812								
	OBS		0900	0389	34945	2778			14812								
	STD		1000	0375	3493	2778	0004181	0506	14823								
	OBS		1000	0375	34933	2778			14823								
	STD		1100	0375	3493	2778	0004268	0549	14839								
	STD		1200	0374	3493	2778	0004350	0592	14856								
	OBS		1200	0374	34932	2778			14856								
	STD		1300	0372	3494	2778	0004388	0635	14872								
	STD		1400	0369	3494	2779	0004413	0679	14887								
	STD		1500	0365	3494	2780	0004423	0724	14903								
	OBS		1500	0365	34941	2780			14903								

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	NODC STATION NUMBER	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER													
							MO		DAY			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT												
							10'	1"	MO	DAY														HR.1/10											
318081		CO	4519 N	04639 W	149	56	05	21	091	1969	IIP	10494	3044	14	25	3	3		X2	0	6		0031												
						WATER		WIND		BARD- 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		25		517		261		08		07												7		23									
MESSENGER TIME HR 1/10		CAST NO.		CARD TYPE		DEPTH (m)		T °C		S ‰		SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		$\frac{\sigma_t}{\sigma_\theta}$ x 10 ³		SOUND VELOCITY		D ₂ ml/l		PD ₄ -P µg - ml/l		TOTAL-P µg - ml/l		NO ₂ -H µg - ml/l		NO ₃ -N µg - ml/l		SiO ₄ -Si µg - ml/l		pH		CO ₂	
				STD		0000		0615		3399		2676		0012951		0000		14744																	
		091		OBS		0000		0615		33992		2676						14744																	
				STD		0010		0615		3399		2676		0012964		0013		14745																	
				OBS		0010		0615		33992		2676						14745																	
				STD		0020		0615		3399		2676		0012978		0026		14747																	
		003		OBS		0020		0615		33992		2676						14747																	
				STD		0030		0615		3399		2676		0012991		0039		14748																	
				OBS		0030		0615		33992		2676						14748																	
				STD		0050		0555		3426		2704		0010335		0062		14731																	
				OBS		0050		0555		34255		2704						14731																	
				STD		0075		0542		3440		2717		0009108		0087		14732																	
				OBS		0075		0542		34403		2717						14732																	
				STD		0100		0496		3449		2730		0007934		0108		14718																	
				OBS		0100		0496		34494		2730						14718																	
				STD		0125		0447		3456		2741		0006925		0126		14703																	
				OBS		0125		0447		34561		2741						14703																	
				STD		0150		0454		3465		2747		0006337		0143		14711																	
				OBS		0150		0454		34653		2747						14711																	
				STD		0200		0453		3473		2754		0005796		0173		14720																	
				OBS		0200		0453		34731		2754						14720																	
				STD		0250		0457		3483		2761		0005139		0201		14731																	
				OBS		0250		0457		34832		2761						14731																	
				STD		0300		0448		3488		2766		0004727		0225		14736																	
				OBS		0300		0448		34881		2766						14736																	
				STD		0400		0437		3492		2771		0004396		0271		14749																	
				OBS		0400		0437		34923		2771						14749																	
				STD		0500		0420		3493		2773		0004226		0314		14759																	
				OBS		0500		0420		34934		2773						14759																	
				STD		0600		0407		3495		2776		0004095		0356		14770																	
				OBS		0600		0407		34945		2776						14770																	
				STD		0700		0402		3493		2775		0004246		0397		14784																	
				OBS		0700		0402		34930		2775						14784																	
				STD		0800		0384		3492		2776		0004183		0440		14793																	
				OBS		0800		0384		34923		2776						14793																	
				STD		0900		0378		3492		2777		0004217		0482		14807																	
				OBS		0900		0378		34921		2777						14807																	
				STD		1000		0378		3492		2777		0004291		0524		14824																	
				OBS		1000		0378		34923		2777						14824																	
				STD		1100		0376		3494		2778		0004266		0567		14840																	
				OBS		1100		0376		34935		2778						14840																	
				STD		1200		0372		3494		2779		0004266		0609		14855																	
				OBS		1200		0372		34940		2779						14855																	
				STD		1300		0368		3493		2779		0004353		0653		14870																	
				OBS		1300		0368		34933		2779						14870																	
				STD		1400		0364		3493		2779		0004379		0696		14885																	
				OBS		1400		0364		34934		2779						14885																	

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSGEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER		
CTRY CODE	IO. NO.					10'	1'	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318081		CO	45195N	04555 W	149	55	05	21	121	1969	11P	10495	3475	15	25	3	2		X1	0	6	0032	
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
COLOR CODE		TRANS. (in)		DIR.		SPEED OR FORCE		DIR.		DRY RULB		WET RULB											
DT		SD		20		516		271		08		08		6		26							
MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		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	0622	3403	2678		0012774		0000		14747											
	121	OBS	0000	0622	34027	2678						14747											
		STD	0010	0622	3403	2678		0012788		0013		14748											
		OBS	0010	0622	34027	2678						14748											
		STD	0020	0622	3403	2678		0012787		0026		14750											
	006	OBS	0020	0622	34029	2678						14750											
		STD	0030	0622	3403	2678		0012793		0038		14752											
		OBS	0030	0622	34030	2678						14752											
		STD	0050	0622	3404	2679		0012752		0064		14755											
		OBS	0050	0622	34039	2679						14755											
		STD	0075	0765	3479	2718		0009075		0091		14825											
		OBS	0090	0850	34830	2708						14861											
		STD	0100	0785	3469	2707		0010136		0115		14836											
		OBS	0100	0785	34692	2707						14836											
		STD	0125	0659	3468	2725		0008533		0139		14791											
		STD	0150	0568	3467	2735		0007509		0159		14758											
		OBS	0150	0568	34671	2735						14758											
		STD	0200	0495	3472	2748		0006333		0193		14737											
		OBS	0200	0495	34722	2748						14737											
		OBS	0240	0522	34807	2752						14756											
		STD	0250	0519	3483	2754		0005861		0224		14757											
		STD	0300	0502	3489	2761		0005263		0251		14759											
		OBS	0300	0502	34892	2761						14759											
		OBS	0360	0423	34832	2765						14735											
		OBS	0390	0459	34892	2766						14756											
		STD	0400	0445	3489	2768		0004703		0301		14752											
		OBS	0400	0445	34894	2768						14752											
		OBS	0480	0453	34941	2770						14769											
		STD	0500	0428	3494	2773		0004294		0346		14762											
		OBS	0500	0428	34937	2773						14762											
		STD	0600	0421	3493	2773		0004374		0390		14775											
		OBS	0600	0421	34929	2773						14775											
		STD	0700	0397	3491	2774		0004337		0433		14782											
		OBS	0700	0397	34910	2774						14782											
		STD	0800	0393	3491	2775		0004369		0477		14797											
		OBS	0800	0393	34912	2775						14797											
		STD	0900	0384	3491	2775		0004384		0520		14810											
		OBS	0900	0384	34908	2775						14810											
		STD	1000	0392	3494	2777		0004333		0564		14830											
		OBS	1000	0392	34940	2777						14830											
		STD	1100	0392	3494	2777		0004446		0608		14847											
		OBS	1100	0392	34937	2777						14847											
		STD	1200	0377	3493	2777		0004431		0652		14857											
		OBS	1200	0377	34926	2777						14857											
		STD	1300	0373	3493	2778		0004460		0697		14872											
		OBS	1300	0373	34927	2778						14872											
		STD	1400	0370	3493	2779		0004462		0741		14888											
		OBS	1400	0370	34933	2779						14888											
		STD	1500	0368																			
		OBS	1500	0368																			

REFERENCE CHIT CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT MILES	MARS DEN SQUARE	STATION TIME (GMT)					YEAR	ORIGINATOR'S			DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLING	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		
						10"	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318081	CO	4453 N	04554 W		149	45	05	21	159	1969	IIP	10496	3585	15	24	3	3			X1	0	6		0033
						WATER		WIND		AIR TEMP. °C				VIS. CODE	NO. OBS. DEPTNS	SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbars)	DRY BULB	WET BULB												
						DT	SD	24	518	278	11	10	6			28								
MESSENGER TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND SALTY-307		Σ Δ O 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	SS CC/L						
159	STD		0000	0600	3363	2649	0015501	0000	14733															
	OBS		0000	0600	33627	2649			14733															
005	STD		0010	0600	3363	2649	0015514	0016	14734															
	OBS		0010	0600	33627	2649			14734															
	STD		0020	0582	3364	2652	0015224	0031	14729															
	OBS		0020	0582	33639	2652			14729															
	STD		0030	0545	3363	2656	0014861	0046	14715															
	OBS		0030	0545	33632	2656			14715															
	OBS		0037	0512	33872	2679			14706															
	STD		0050	0569	3395	2679	0012766	0074	14733															
	OBS		0050	0569	33952	2679			14733															
	STD		0075	0385	3396	2699	0010797	0103	14661															
	OBS		0075	0385	33955	2699			14661															
	STD		0100	0345	3409	2714	0009443	0128	14649															
	OBS		0100	0345	34087	2714			14649															
	OBS		0118	0416	34272	2721			14685															
	STD		0125	0365	3428	2727	0008200	0150	14665															
	OBS		0142	0338	34300	2731			14656															
	STD		0150	0372	3439	2735	0007455	0170	14673															
	OBS		0150	0372	34391	2735			14673															
	STD		0200	0407	3463	2751	0006039	0204	14699															
	OBS		0200	0407	34633	2751			14699															
STD		0250	0493	3482	2756	0005636	0233	14746																
OBS		0250	0493	34820	2756			14746																
STD		0300	0518	3489	2759	0005452	0261	14765																
OBS		0300	0518	34892	2759			14765																
OBS		0331	0503	34945	2765			14765																
OBS		0370	0507	34957	2765			14773																
STD		0400	0478	3492	2766	0004874	0312	14766																
OBS		0400	0478	34922	2766			14766																
STD		0500	0458	3495	2771	0004514	0359	14775																
OBS		0500	0458	34954	2771			14775																
STD		0600	0424	3494	2773	0004364	0404	14777																
OBS		0600	0424	34935	2773			14777																
STD		0700	0412	3494	2774	0004317	0447	14788																
OBS		0700	0412	34936	2774			14788																
STD		0800	0396	3492	2775	0004374	0490	14798																
OBS		0800	0396	34916	2775			14798																
STD		0900	0393	3493	2776	0004350	0534	14814																
OBS		0900	0393	34927	2776			14814																
STD		1000	0387	3492	2776	0004443	0578	14828																
OBS		1000	0387	34917	2776			14828																
STD		1100	0383	3493	2777	0004388	0622	14843																
OBS		1100	0383	34930	2777			14843																
STD		1200	0378	3493	2777	0004436	0666	14857																
OBS		1200	0378	34927	2777			14857																
STD		1300	0376	3493	2778	0004461	0711	14873																
OBS		1300	0376	34932	2778			14873																
STD		1400	0371	3494	2779	0004402	0755	14888																
OBS		1400	0371	34943	2779			14888																
STD		1500	0367	3494	2780	0004427	0799	14903																
OBS		1500	0367	34944	2780			14903																

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARSden 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 NO.	STATION NUMBER					MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081	CO		4427 N	04552 W	149 45	05	21	185	1969	IIP	10497	3690	15	24	3	3		X1	0	6	0034
		WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. MM	DIR.	SPEED OR FORCE			DRY BULB	WET BULB												
		DT	SD	24	S15	291		15	14	7		25									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	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	Si O ₄ -Si μg - at/l	pH	LOGS
185	STD	0000	1227	3521	2671	0013377	0000	14987									
			1227	35205	2671			14987									
006	STD	0010	1223	3519	2671	0013424	0013	14987									
			1223	35192	2671			14987									
	OBS	0010	1209	3522	2676	0012972	0027	14984									
			1209	35222	2676			14984									
	STD	0020	1209	3525	2678	0012792	0039	14986									
			1209	35250	2678			14986									
	OBS	0030	1212	3534	2685	0012223	0064	14991									
			1212	35342	2685			14991									
	STD	0050	1254	3559	2696	0011237	0094	15013									
			1254	35592	2696			15013									
	OBS	0075	1278	3559	2691	0011754	0123	15025									
			1278	35593	2691			15025									
	STD	0100	1295	3563	2691	0011878	0152	15035									
			1297	3564	2691	0011890	0182	15040									
	OBS	0150	1297	35643	2691			15040									
			1253	3560	2697	0011530	0240	15033									
	STD	0200	1253	35595	2697			15033									
			1100	3533	2705	0010769	0296	14985									
	OBS	0250	1100	35332	2705			14985									
			0951	3525	2725	0008923	0345	14938									
	STD	0300	0951	35253	2725			14938									
			0727	3495	2736	0007893	0429	14866									
	OBS	0400	0727	34952	2736			14866									
			0417	0700	35071	2750		14860									
	STD	0430	0731P	35052	2744P												
			0500	0558	3491	2756	0006034	0499	14815								
	OBS	0500	0558	34914	2756			14815									
			0600	0581	3503	2762	0005592	0557	14842								
	STD	0600	0581	35032	2762			14842									
			0480	3498	2770	0004829	0609	14817									
	OBS	0700	0480	34977	2770			14817									
			0460	3497	2772	0004744	0657	14825									
	STD	0800	0460	34970	2772			14825									
			0434	3496	2774	0004609	0704	14831									
	OBS	0900	0434	34959	2774			14831									
			1000	0415	3493	2774	0004665	0750	14839								
	STD	1000	0415	34933	2774			14839									
			1100	0385	3491	2775	0004559	0796	14843								
	OBS	1100	0385	34910	2775			14843									
			1200	0381	3490	2775	0004650	0842	14858								
	STD	1200	0381	34903	2775			14858									
			1300	0376	3491	2776	0004607	0889	14873								
	OBS	1300	0376	34912	2776			14873									
			1400	0376	3492	2777	0004619	0935	14890								
	STD	1400	0376	34922	2777			14890									
			1500	0377	3494	2778	0004607	0981	14907								
	OBS	1500	0377	34937	2778			14907									

REFERENCE CITY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S			DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
						10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER	DIR.			HGT	PER	SEA		TYPE	AMT	
318081	CO	4400 N	04550 W	149	45	05	21	212	1969	IIP	10498	2652	15	28	3	3		X1	0 6		0035
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTH'S		SPECIAL OBSERVATIONS				
					COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	GREY BULB	WET BULB											
					DT	SD	24	S15	312	15	14	7	30								
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-3107	Σ Δ O 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	ST C				
212	STD		0000	1306	3531	2664	0014101	0000	15015												
	OBS		0000	1306	35309	2664			15015												
005	STD		0010	1285	3531	2668	0013719	0014	15009												
	OBS		0010	1285	35310	2668			15009												
	STD		0020	1269	3537	2676	0012995	0027	15006												
	OBS		0020	1269	35371	2676			15006												
	STD		0030	1265	3537	2677	0012931	0040	15007												
	OBS		0030	1265	35373	2677			15007												
	STD		0050	1254	3538	2680	0012733	0066	15006												
	OBS		0050	1254	35379	2680			15006												
	STD		0075	1247	3538	2681	0012646	0098	15008												
	OBS		0075	1247	35382	2681			15008												
	STD		0100	1318	3566	2688	0012058	0128	15039												
	OBS		0100	1318	35657	2688			15039												
	STD		0125	1347	3574	2689	0012062	0159	15054												
	OBS		0125	1347	35744	2689			15054												
	STD		0135	1357	35789	2690			15060												
	OBS		0150	1331	3569	2688	0012225	0189	15052												
	STD		0150	1331	35688	2688			15052												
	OBS		0165	1313	35657	2689			15048												
	STD		0180	1341	35784	2693			15062												
	OBS		0200	1322	3570	2690	0012136	0250	15057												
STD		0200	1322	35695	2690			15057													
OBS		0250	1309	3569	2693	0012040	0310	15061													
STD		0250	1309	35692	2693			15061													
OBS		0300	1258	3559	2695	0011920	0370	15051													
STD		0300	1258	35591	2695			15051													
OBS		0400	0985	3525	2719	0009694	0478	14967													
STD		0400	0985	35254	2719			14967													
OBS		0500	0820	3507	2732	0008580	0570	14920													
STD		0500	0820	35070	2732			14920													
OBS		0600	0581	3488	2751	0006686	0646	14840													
STD		0600	0581	34884	2751			14840													
OBS		0640	0534	34869	2755			14828													
STD		0680	0583	35017	2761			14856													
OBS		0700	0579	3502	2762	0005795	0708	14858													
STD		0700	0579	35019	2762			14858													
OBS		0743	0476	34964	2770			14822													
STD		0800	0487	3495	2768	0005200	0763	14836													
OBS		0800	0487	34954	2768			14836													
STD		0900	0445	3494	2771	0004892	0814	14835													
OBS		0900	0445	34939	2771			14835													
STD		1000	0425	3494	2774	0004708	0862	14844													
OBS		1000	0425	34944	2774			14844													
STD		1100	0413	3495	2775	0004648	0909	14855													
OBS		1100	0413	34945	2775			14855													
STD		1200	0403	3494	2776	0004623	0955	14868													
OBS		1200	0403	34944	2776			14868													
STD		1300	0389	3493	2776	0004661	1001	14879													
OBS		1300	0389	34927	2776			14879													
STD		1400	0380	3492	2776	0004692	1048	14892													
OBS		1400	0380	34919	2776			14892													
STD		1500	0375	3493	2777	0004662	1095	14906													
OBS		1500	0375	34926	2777			14906													

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 S'AMPL'S	WAVE OBSERVATIONS				WEATHER 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		TYPE	AMT	
318081	CO	4408 N	04632 W	149	46	05	22	008	1969	11P	10499	3840	15	25	3	2			X1	0	6		0036
					WATER		WIND		AIR TEMP. °C		BARO-METER (mb)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE												
					07	50	25	S14	308	15	14	7	24										

MESSAGE TIME OF HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ D OTH. 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 ₂ -N μg - ml/l	SIO ₄ -Si μg - ml/l	pH	1	2
		STD	0000	1481	3604	2684	0012226	0000	15081									
008		OBS	0000	1481	36044	2684			15081									
		STD	0010	1481	3604	2684	0012257	0012	15082									
		OBS	0010	1481	36044	2684			15082									
004		STD	0020	1481	3604	2684	0012287	0025	15084									
		OBS	0020	1481	36044	2684			15084									
		STD	0030	1481	3604	2684	0012318	0037	15086									
		OBS	0030	1481	36044	2684			15086									
		STD	0050	1464	3604	2687	0012025	0061	15084									
		OBS	0050	1464	36044	2687			15084									
		STD	0075	1439	3604	2692	0011649	0091	15080									
		OBS	0075	1439	36035	2692			15080									
		STD	0100	1438	3604	2692	0011703	0120	15083									
		OBS	0100	1438	36035	2692			15083									
		STD	0125	1437	3603	2692	0011764	0149	15087									
		OBS	0125	1437	36034	2692			15087									
		STD	0150	1424	3601	2693	0011768	0179	15087									
		OBS	0150	1424	36007	2693			15087									
		STD	0200	1362	3591	2698	0011390	0237	15073									
		OBS	0200	1362	35906	2698			15073									
		STD	0250	1356	3589	2698	0011550	0294	15079									
		OBS	0250	1356	35887	2698			15079									
		STD	0300	1336	3583	2698	0011713	0352	15080									
		OBS	0300	1336	35829	2698			15080									
		STD	0400	1185	3552	2704	0011294	0467	15042									
		OBS	0400	1185	35522	2704			15042									
		STD	0500	0955	3525	2724	0009423	0571	14973									
		OBS	0500	0955	35251	2724			14973									
		STD	0600	0752	3507	2742	0007759	0657	14910									
		OBS	0600	0752	35065	2742			14910									
		STD	0700	0641	3506	2756	0006381	0727	14883									
		OBS	0700	0641	35055	2756			14883									
		STD	0800	0553	3503	2766	0005489	0787	14864									
		OBS	0800	0553	35031	2766			14864									
		STD	0900	0485	3499	2771	0005029	0839	14853									
		OBS	0900	0485	34989	2771			14853									
		STD	1000	0468	3500	2773	0004846	0889	14862									
		OBS	1000	0468	34999	2773			14862									
		STD	1100	0430	3497	2775	0004670	0936	14863									
		OBS	1100	0430	34971	2775			14863									
		STD	1200	0412	3496	2776	0004605	0983	14872									
		OBS	1200	0412	34962	2776			14872									
		STD	1300	0397	3494	2777	0004638	1029	14882									
		OBS	1300	0397	34944	2777			14882									
		STD	1400	0391	3495	2777	0004643	1075	14897									
		OBS	1400	0391	34945	2777			14897									
		STD	1500	0389	3495	2778	0004676	1122	14913									
		OBS	1500	0389	34949	2778			14913									

REFERENCE CITY CODE	ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT 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	
						10"	1"	MO	OAT	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	MG	PER		SEA	TYPE		AMT
						WATER	WIND	BARO- METER	AIR TEMP. °C	VIS. CODE													
						COLOR CODE	TRANS. (m)	OIL	SPEED OR FORCE	BARO- METER (mba)	DRY BULB	WET BULB											
						DT	SD	26	S18	298	15	14	7	26									
MESSAGE TIME HR 1/10	CAS NO.	CAS 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 $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	S C						
		STD	0000	1499	3613	2686	0011982	0000	15088														
040		OBS	0000	1499	36129	2686			15088														
		STD	0010	1500	3613	2686	0012034	0012	15089														
		OBS	0010	1500	36129	2686			15089														
		STD	0020	1501	3613	2686	0012086	0024	15091														
005		OBS	0020	1501	36129	2686			15091														
		STD	0030	1502	3613	2685	0012139	0036	15093														
		OBS	0030	1502	36129	2685			15093														
		STD	0050	1503	3613	2685	0012222	0061	15097														
		OBS	0050	1503	36129	2685			15097														
		STD	0075	1503	3613	2685	0012299	0091	15101														
		OBS	0075	1503	36129	2685			15101														
		STD	0100	1503	3613	2685	0012376	0122	15105														
		OBS	0100	1503	36129	2685			15105														
		STD	0125	1503	3613	2685	0012453	0153	15109														
		OBS	0125	1503	36129	2685			15109														
		STD	0150	1463	3602	2686	0012489	0184	15099														
		OBS	0150	1463	36019	2686			15099														
		STD	0200	1405	3588	2688	0012429	0247	15087														
		OBS	0200	1405	35883	2688			15087														
		STD	0250	1349	3582	2694	0011906	0307	15076														
		OBS	0250	1349	35819	2694			15076														
		STD	0300	1220	3549	2695	0011948	0367	15037														
		OBS	0300	1220	35488	2695			15037														
		STD	0400	0953	3522	2722	0009416	0474	14955														
		OBS	0400	0953	35219	2722			14955														
		OBS	0462	0679	34889	2738			14857														
		OBS	0475	0793	35068	2736			14906														
		STD	0500	0768	3506	2739	0007864	0560	14900														
		OBS	0500	0768	35060	2739			14900														
		STD	0600	0625	3499	2753	0006501	0632	14859														
		OBS	0600	0625	34989	2753			14859														
		STD	0700	0535	3498	2764	0005511	0692	14840														
		OBS	0700	0535	34979	2764			14840														
		STD	0800	0498	3499	2769	0005096	0745	14841														
		OBS	0800	0498	34987	2769			14841														
		STD	0900	0468	3499	2772	0004826	0795	14846														
		OBS	0900	0468	34987	2772			14846														
		STD	1000	0437	3497	2775	0004651	0842	14849														
		OBS	1000	0437	34972	2775			14849														
		STD	1100	0423	3496	2775	0004633	0889	14860														
		OBS	1100	0423	34964	2775			14860														
		STD	1200	0409	3496	2777	0004581	0935	14871														
		OBS	1200	0409	3596P	2856P																	
		STD	1300	0398	3496	2778	0004556	0980	14883														
		OBS	1300	0398	34957	2778			14883														
		STD	1400	0391	3495	2778	0004592	1026	14897														
		OBS	1400	0391	34952	2778			14897														
		STD	1500	0386																			
		OBS	1500	0386	3486P	2771P																	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HAUSDEN 10° 1'	MARKSDEN 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	JO. NO.					10°	1°	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	4419 N	04733 W	149	47	05	22	063	1969	IIP	10501	3658	14	28	3	3		X2	0	6		0038
						WATER		WIND		BARO- METER 1mb	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
COLOR CODE		TRANS. MM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
DT		SD	Z4	S15	129	13	12	7	26														
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-10 ³	Σ Δ D DTN. 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							
		STD	0000	1345	3561	2679	0012643	0000	15031														
	063	OBS	0000	1345	35611	2679			15031														
		STD	0010	1354	3564	2679	0012657	0013	15036														
		OBS	0010	1354	35637	2679			15036														
		STD	0020	1361	3564	2678	0012809	0025	15040														
	006	OBS	0020	1361	35639	2678			15040														
		STD	0030	1364	3566	2679	0012766	0038	15043														
		OBS	0030	1364	35657	2679			15043														
		STD	0050	1423	3591	2686	0012159	0063	15069														
		OBS	0050	1423	35910	2686			15069														
		STD	0075	1426	3591	2686	0012266	0094	15074														
		OBS	0075	1426	35914	2686			15074														
		STD	0100	1377	3585	2691	0011821	0124	15061														
		OBS	0100	1377	35849	2691			15061														
		STD	0125	1282	3562	2693	0011700	0153	15031														
		OBS	0130	1274	35609	2693			15029														
		STD	0150	1277	3564	2695	0011518	0182	15034														
		OBS	0150	1277	35641	2695			15034														
		STD	0200	1165	3537	2696	0011544	0240	15000														
		OBS	0200	1165	35369	2696			15000														
		STD	0250	1032	3525	2711	0010212	0294	14960														
		OBS	0250	1032	35247	2711			14960														
		STD	0300	0872	3507	2724	0009016	0342	14907														
		OBS	0300	0872	35069	2724			14907														
		STD	0400	0700	3501	2745	0007089	0423	14856														
		OBS	0400	0700	35009	2745			14856														
		OBS	0435	0545	34809	2749			14798														
		OBS	0450	0545	34949	2760			14802														
		STD	0500	0500	3487	2759	0005661	0487	14791														
		OBS	0500	0500	34867	2759			14791														
		OBS	0550	0478	34908	2765			14791														
		STD	0600	0500	3500	2770	0004799	0539	14809														
		OBS	0600	0500	34999	2770			14809														
		STD	0700	0463	3496	2771	0004761	0587	14810														
		OBS	0700	0463	34958	2771			14810														
		STD	0800	0438	3496	2773	0004578	0633	14816														
		OBS	0800	0438	34956	2773			14816														
		STD	0900	0417	3494	2774	0004527	0679	14824														
		OBS	0900	0417	34942	2774			14824														
		STD	1000	0402	3493	2775	0004499	0724	14834														
		OBS	1000	0402	34934	2775			14834														
		STD	1100	0400	3495	2776	0004486	0769	14850														
		OBS	1100	0400	34945	2776			14850														
		STD	1200	0393	3494	2777	0004497	0814	14864														
		OBS	1200	0393	34944	2777			14864														
		STD	1300	0389	3494	2777	0004536	0859	14879														
		OBS	1300	0389	34944	2777			14879														
		OBS	1368	0378	34937	2778			14886														

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIR DRIFT AMT	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
						10'	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318081	CO		4423 N	04757 W		149	47	05	22	092	1969	IIP	10502	3365	15	24	3	3		X4	0	6	0039
						WATER		WIND		BARO- METER (mb)		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. IMI	DIR.	SPEED OR FORCE			DRY BULB	WET BULB										
						DT	SO	24	522	301		10	10	1	24								
MESSENGR 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. $\times 10^3$	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			
			STD	0000	0812	3395	2645		0015888		0000	14820											
092			OBS	0000	0812	33946	2645					14820											
			STD	0010	0812	3396	2646		0015809		0016	14822											
			OBS	0010	0812	33959	2646					14822											
			STD	0020	0812	3419	2664		0014117		0031	14827											
005			OBS	0020	0812	34189	2664					14827											
			STD	0030	0806	3433	2676		0013005		0044	14828											
			STD	0050	0795	3463	2701		0010621		0068	14831											
			OBS	0050	0795	34634	2701					14831											
			STD	0075	1025	3509	2700		0010863		0095	14926											
			OBS	0075	1025	35089	2700					14926											
			STD	0100	0933	3489	2700		0010901		0122	14894											
			OBS	0100	0933	34889	2700					14894											
			STD	0125	0729	3477	2722		0008823		0147	14819											
			OBS	0125	0729	34769	2722					14819											
			STD	0150	0877	3509	2724		0008651		0169	14884											
			OBS	0150	0877	35089	2724					14884											
			STD	0200	0755	3495	2732		0007977		0210	14844											
			OBS	0200	0755	34949	2732					14844											
			OBS	0228	0649	34949	2747					14807											
			STD	0250	0627	3489	2745		0006755		0247	14801											
			STD	0300	0558	3483	2749		0006406		0280	14781											
			OBS	0300	0558	34829	2749					14781											
			OBS	0350	0462	34850	2762					14750											
			STD	0400	0470	3488	2764		0005087		0337	14762											
			OBS	0400	0470	34881	2764					14762											
			STD	0500	0477	3496	2769		0004671		0386	14783											
			OBS	0500	0477	34963	2769					14783											
			STD	0600	0470	3500	2773		0004447		0432	14797											
			OBS	0600	0470	34997	2773					14797											
			STD	0700	0424	3495	2774		0004361		0476	14794											
			OBS	0700	0424	34949	2774					14794											
			STD	0800	0402	3493	2775		0004318		0519	14801											
			OBS	0800	0402	34933	2775					14801											
			STD	0900	0399	3495	2777		0004251		0562	14816											
			OBS	0900	0399	34950	2777					14816											
			STD	1000	0383	3493	2777		0004314		0605	14826											
			OBS	1000	0383	34928	2777					14826											
			STD	1100	0378	3493	2778		0004319		0648	14841											
			OBS	1100	0378	34931	2778					14841											
			STD	1200	0373	3493	2778		0004374		0691	14855											
			OBS	1200	0373	34927	2778					14855											
			STD	1300	0373	3495	2780		0004291		0735	14872											
			OBS	1300	0373	34950	2780					14872											
			STD	1400	0373	3495	2780		0004383		0778	14889											
			OBS	1400	0373	34949	2780					14889											
			STD	1500	0368	3495	2780		0004403		0822	14904											
			OBS	1500	0368	34949	2780					14904											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	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	

318081		CO	4427 N	04806 W	149	48	05	22	111	1969	11P	10503	3292	15	28	4	3		X4	0	6	0040
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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	24	S17	312	11	10	1	24
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MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	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	3 C C
		STD	0000	0704	3367	2639	0016474	0000	14775								
111		OBS	0000	0704	33670	2639			14775								
		STD	0010	0704	3367	2639	0016489	0016	14776								
		OBS	0010	0704	33670	2639			14776								
		STD	0020	0733	3389	2652	0015270	0032	14792								
005		OBS	0020	0733	33887	2652			14792								
		STD	0030	0780	3420	2670	0013593	0047	14816								
		OBS	0030	0780	34201	2670			14816								
		STD	0050	0820	3431	2672	0013393	0074	14836								
		OBS	0050	0820	34309	2672			14836								
		STD	0075	0795	3465	2703	0010554	0104	14835								
		OBS	0075	0795	34649	2703			14835								
		STD	0100	0805	3489	2720	0008962	0128	14846								
		OBS	0100	0805	34889	2720			14846								
		STD	0125	0801	3491	2722	0008801	0150	14849								
		OBS	0125	0801	34909	2722			14849								
		STD	0150	0718	3492	2735	0007583	0171	14821								
		OBS	0150	0718	34921	2735			14821								
		STD	0200	0535	3475	2746	0006574	0206	14754								
		OBS	0200	0535	34752	2746			14754								
		STD	0250	0485	3472	2750	0006261	0238	14741								
		OBS	0250	0485	34724	2750			14741								
		STD	0300	0536	3495	2761	0005243	0267	14774								
		OBS	0300	0536	34949	2761			14774								
		STD	0400	0485	3500	2771	0004383	0315	14770								
		OBS	0400	0485	34999	2771			14770								
		STD	0500	0451	3495	2771	0004454	0359	14772								
		OBS	0500	0451	34951	2771			14772								
		STD	0600	0431	3495	2774	0004327	0403	14780								
		OBS	0600	0431	34951	2774			14780								
		STD	0700	0417	3495	2775	0004279	0446	14791								
		OBS	0700	0417	34949	2775			14791								
		STD	0800	0406	3494	2776	0004291	0489	14803								
		OBS	0800	0406	34943	2776			14803								
		STD	0900	0393	3494	2776	0004283	0532	14814								
		OBS	0900	0393	34936	2776			14814								
		STD	1000	0390	3494	2777	0004324	0575	14829								
		OBS	1000	0390	34938	2777			14829								
		STD	1100	0384	3494	2777	0004363	0618	14843								
		OBS	1100	0384	34935	2777			14843								
		STD	1200	0375	3493	2778	0004384	0662	14856								
		OBS	1200	0375	34929	2778			14856								
		STD	1300	0375	3494	2778	0004419	0706	14873								
		OBS	1300	0375	34936	2778			14873								
		STD	1400	0374	3494	2779	0004477	0751	14889								
		OBS	1400	0374	34938	2779			14889								
		STD	1500	0367	3494	2779	0004463	0795	14903								
		OBS	1500	0367	34939	2779			14903								

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ROUTE POST	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	
							SQUARE		TIME			CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT		
							10"	1"	MO	DAY													HR. 1/10
318081	CO		44292N	048188W		149	48	05	22	135	1969	IIP	10504	3409	15	27	4	3		X4	0	6	0041
							WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
							COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)	DRY BULB	WET BULB										
							DT	SD	25	S15	312	08	08	1				25					
MESSENGR TIME HR 1/10	CARD 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 $\mu\text{g} \cdot \text{at/l}$	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	3 CDS					
		STD	0000	0316	3332	2655	0014916		0000	14610													
135		OBS	0000	0316	33318	2655				14610													
		STD	0010	0316	3332	2655	0014922		0015	14612													
		OBS	0010	0316	33318	2655				14612													
		STD	0020	0285	3333	2659	0014546		0030	14600													
005		OBS	0020	0285	33334	2659				14600													
		STD	0030	0246	3346	2673	0013277		0044	14587													
		OBS	0030	0246	33461	2673				14587													
		STD	0050	0096	3375	2706	0010057		0067	14527													
		OBS	0050	0096	33749	2706				14527													
		STD	0075	0110	3392	2719	0008848		0091	14540													
		OBS	0075	0110	33920	2719				14540													
		STD	0100	0135	3401	2725	0008333		0112	14557													
		OBS	0100	0135	34010	2725				14557													
		STD	0125	0143	3412	2733	0007545		0132	14566													
		OBS	0125	0143	34122	2733				14566													
		STD	0150	0178	3428	2743	0006610		0150	14588													
		OBS	0150	0178	34280	2743				14588													
		STD	0200	0318	3461	2758	0005354		0179	14661													
		OBS	0200	0318	34607	2758				14661													
		OBS	0224	0432	34717	2755				14715													
		STD	0250	0355	3467	2759	0005285		0206	14686													
		OBS	0250	0355	34669	2759				14686													
		STD	0300	0440	3485	2764	0004885		0231	14733													
		OBS	0300	0440	34848	2764				14733													
		STD	0400	0428	3492	2772	0004311		0277	14745													
		OBS	0400	0428	34921	2772				14745													
		STD	0500	0412	3493	2774	0004188		0320	14755													
		OBS	0500	0412	34927	2774				14755													
		STD	0600	0401	3493	2775	0004169		0362	14767													
		OBS	0600	0401	34926	2775				14767													
		STD	0700	0392	3493	2776	0004153		0403	14780													
		OBS	0700	0392	34927	2776				14780													
		STD	0800	0388	3493	2776	0004199		0445	14795													
		OBS	0800	0388	34927	2776				14795													
		STD	0900	0375	3492	2777	0004167		0487	14806													
		OBS	0900	0375	34923	2777				14806													
		STD	1000	0372	3492	2777	0004234		0529	14821													
		OBS	1000	0372	34921	2777				14821													
		STD	1100	0372	3493	2778	0004261		0571	14838													
		OBS	1100	0372	34929	2778				14838													
		STD	1200	0372	3494	2779	0004266		0614	14855													
		OBS	1200	0372	34940	2779				14855													
		STD	1300	0370	3494	2779	0004327		0657	14871													
		OBS	1300	0370	34940	2779				14871													
		STD	1400	0366	3494	2780	0004338		0700	14886													
		OBS	1400	0366	34943	2780				14886													
		STD	1500	0360	3495	2781	0004308		0744	14900													
		OBS	1500	0360	34948	2781				14900													

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MO	DAY	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
							CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081 CO 4432 N 04835 W 149 48 05 22 156 1969 IIP 10505 2743 15 27 1 4 X4 0 6 0042

WATER		WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS CODE	NO. OBS. OBS.	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

DT SD 29 505 318 06 06 5 26

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	Σ Δ O OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PD 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	CTD
	156	STD	0000	0540	3388	2677	0012889	0000	14712								
		OBS	0000	0540	33883	2677			14712								
		STD	0010	0539	3388	2677	0012890	0013	14713								
		OBS	0010	0539	33883	2677			14713								
		STD	0020	0539	3391	2679	0012669	0026	14715								
	004	OBS	0020	0539	33914	2679			14715								
		STD	0030	0564	3405	2687	0011979	0038	14729								
		OBS	0030	0564	34046	2687			14729								
		STD	0050	0620	3425	2696	0011145	0061	14757								
		OBS	0050	0620	34251	2696			14757								
		STD	0075	0745	3472	2716	0009294	0087	14817								
		OBS	0075	0745	34724	2716			14817								
		STD	0100	0720	3469	2717	0009253	0110	14811								
		OBS	0100	0720	34689	2717			14811								
		STD	0125	0624	3467	2728	0008196	0132	14777								
		OBS	0125	0624	34667	2728			14777								
		STD	0150	0538	3459	2732	0007794	0152	14745								
		OBS	0150	0538	34585	2732			14745								
		OBS	0180	0449	34568	2741			14713								
		STD	0200	0518	3467	2741	0006994	0189	14746								
		OBS	0200	0518	34669	2741			14746								
		OBS	0227	0430	34666	2751			14714								
		STD	0250	0452	3475	2756	0005667	0220	14728								
		OBS	0250	0452	34754	2756			14728								
		STD	0300	0426	3478	2760	0005247	0248	14726								
		OBS	0300	0426	34779	2760			14726								
		STD	0400	0421	3486	2767	0004680	0297	14741								
		OBS	0400	0421	34861	2767			14741								
		STD	0500	0427	3493	2773	0004305	0342	14761								
		OBS	0500	0427	34934	2773			14761								
		STD	0600	0410	3493	2774	0004219	0385	14771								
		OBS	0600	0410	34933	2774			14771								
		STD	0700	0403	3494	2776	0004190	0427	14785								
		OBS	0700	0403	34939	2776			14785								
		STD	0800	0391	3493	2776	0004182	0469	14796								
		OBS	0800	0391	34934	2776			14796								
		STD	0900	0386	3493	2777	0004230	0511	14811								
		OBS	0900	0386	34932	2777			14811								
		STD	1000	0381	3493	2777	0004245	0553	14825								
		OBS	1000	0381	34934	2777			14825								
		STD	1100	0379	3494	2778	0004302	0596	14841								
		OBS	1100	0379	34935	2778			14841								
		STD	1200	0372	3494	2778	0004303	0639	14855								
		OBS	1200	0372	34935	2778			14855								
		STD	1300	0370	3494	2779	0004305	0682	14871								
		OBS	1300	0370	34943	2779			14871								
		STD	1400	0368	3495	2780	0004334	0725	14887								
		OBS	1400	0368	34947	2780			14887								
		STD	1500	0364	3495	2780	0004359	0769	14902								
		OBS	1500	0364	34948	2780			14902								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT NO.	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		
CRUISE NO.	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318081	CO		4434 N	04850 W		149	48	05	22	177	1969	11P	10506	1189	12	27	3	3		X2	0	6	0043		
						WATER		WIND		BARO- METER (mba)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						CDLR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB												
						DT	SD	35	S03	325	06	06	5	24											
MESSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ DTN. M. $\times 10^3$	SOUND VELOCITY	D 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	SG								
		STD	0000	0140	3309	2651	0015304	0000	14530																
177		OBS	0000	0140	33094	2651			14530																
		STD	0010	0139	3309	2651	0015298	0015	14531																
		OBS	0010	0139	33094	2651			14531																
		STD	0020	0136	3309	2651	0015280	0031	14531																
003		OBS	0020	0136	33094	2651			14531																
		STD	0030	0118	3309	2652	0015192	0046	14525																
		OBS	0030	0118	33091	2652			14525																
		STD	0050	0080	3321	2664	0014070	0075	14513																
		OBS	0050	0080	33209	2664			14513																
		STD	0075	0001	3342	2685	0012052	0108	14484																
		OBS	0075	0001	33419	2685			14484																
		STD	0100	-0015	3361	2702	0010483	0136	14483																
		OBS	0100	-0015	33614	2702			14483																
		STD	0125	0011	3382	2717	0009045	0160	14502																
		OBS	0125	0011	33819	2717			14502																
		STD	0150	0350	3427	2728	0008174	0182	14662																
		OBS	0150	0350	34267	2728			14662																
		OBS	0165	0315	34239	2729			14649																
		STD	0200	0434	3447	2735	0007544	0221	14709																
		OBS	0200	0434	34470	2735			14709																
		STD	0250	0463	3468	2749	0006319	0256	14732																
		OBS	0250	0463	34683	2749			14732																
		OBS	0260	0480	34709	2749			14741																
		STD	0300	0456	3474	2754	0005839	0286	14738																
		OBS	0300	0456	34744	2754			14738																
		OBS	0330	0463	34804	2758			14747																
		STD	0400	0358	3480	2769	0004469	0338	14714																
		OBS	0400	0358	34799	2769			14714																
		STD	0500	0431	3491	2770	0004537	0383	14763																
		OBS	0500	0431	34909	2770			14763																
		STD	0600	0418	3491	2772	0004481	0428	14774																
		OBS	0600	0418	34910	2772			14774																
		STD	0700	0400	3491	2774	0004364	0472	14783																
		OBS	0700	0400	34911	2774			14783																
		STD	0800	0396	3491	2774	0004411	0516	14798																
		OBS	0800	0396	34911	2774			14798																
		STD	0900	0393	3491	2774	0004468	0560	14813																
		OBS	0900	0393	34911	2774			14813																
		STD	1000	0387	3491	2775	0004487	0605	14827																
		OBS	1000	0387	34911	2775			14827																
		STD	1100	0385	3491	2775	0004552	0650	14843																
		OBS	1100	0385	34911	2775			14843																
		OBS	1175	0381	34911	2776			14854																

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS SQUARE	STATION TIME IGMT			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER	
					10"	1"	MO		OAT	HR.1/10			CRUISE NO.	STATION NUMBER	OIL	HGT		PER	SEA		TYPE
318081	CO	4434 N	04903 W	149	49	05	22	1969	11P	10507	0457	04	26	3	3		X2	0	6		0044
				WATER		WIND		AIR TEMP. °C		BARO- METER (mbars)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				COLOR	TRANS. (m)	OIL	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE											
				DT	SO	05	S06	339	04	02	7	14									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ OYN. M. $\times 10^3$	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	3 C
		STD	0000	0173	3300	2641	0016240	0000	14543								
		OBS	0000	0173	32999	2641			14543								
		STD	0010	0168	3301	2642	0016148	0016	14543								
		OBS	0010	0168	33007	2642			14543								
		STD	0020	0169	3302	2643	0016095	0032	14545								
		OBS	0020	0169	33015	2643			14545								
		STD	0030	0101	3305	2650	0015379	0048	14517								
		OBS	0030	0101	33053	2650			14517								
		STD	0050	-0002	3326	2672	0013265	0077	14476								
		OBS	0050	-0002	33259	2672			14476								
		STD	0075	-0004	3329	2675	0013051	0110	14480								
		OBS	0075	-0004	33285	2675			14480								
		STD	0100	-0009	3335	2680	0012502	0142	14482								
		OBS	0100	-0009	33353	2680			14482								
		STD	0125	-0008	3344	2687	0011829	0172	14488								
		OBS	0125	-0008	33441	2687			14488								
		STD	0150	-0006	3346	2689	0011703	0201	14494								
		OBS	0150	-0006	33458	2689			14494								
		STD	0200	0028	3370	2706	0010039	0256	14521								
		OBS	0200	0028	33699	2706			14521								
		STD	0250	0061	3376	2709	0009780	0305	14545								
		OBS	0250	0061	33758	2709			14545								
		STD	0300	0112	3400	2726	0008256	0350	14579								
		OBS	0300	0112	34004	2726			14579								
		STD	0400	0359	3481	2770	0004397	0414	14715								
		OBS	0400	0359	34810	2770			14715								
		OBS	0431	0373	34868	2773			14726								

REFERENCE CST CODE	SHIP NO.	SNIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARS SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER			
						10"	1"	MO		OAT	HLR/10			CRUISE NO.	STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT	
318081	CO		4440 N	04920 W	149	49	05	22	210	1969	11P	10508	0060	00	06	3	2		X2	0	6		0045	
						WATER		WIND		AIR TEMP. °C		BARO- METER (mbars)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	OIL	SPEED OR FORCE	DRY BULB		WET BULB		VIS. CODE										
						DT	SO	06	S06	349	04	02	7	05										

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \rho$ OYN. M. $\times 10^3$	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	3 C
		STD	0000	0221	3300	2638	0016577	0000	14564								
		OBS	0000	0221	32999	2638			14564								
		STD	0010	0219	3300	2638	0016565	0017	14565								
		OBS	0010	0219	32999	2638			14565								
		STD	0020	0165	3293	2636	0016714	0033	14542								
		OBS	0020	0165	32930	2636			14542								
		STD	0030	0098	3306	2651	0015285	0049	14516								
		OBS	0030	0098	33063	2651			14516								
		OBS	0040	0016	33192	2666			14482								

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° ' 10	LONGITUDE ° ' 10	MARSEN 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	

MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ 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 ₃ -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
013		STD	0000	0278	3286	2622	0018088	0000	14587								
		OBS	0000	0278	32857	2622			14587								
		STD	0010	0264	3286	2623	0017951	0018	14583								
001		OBS	0010	0264	32861	2623			14583								
		STD	0020	0122	3291	2637	0016600	0035	14523								
		OBS	0020	0122	32909	2637			14523								
		STD	0030	0075	3295	2644	0015985	0052	14504								
		OBS	0030	0075	32954	2644			14504								
		STD	0050	0038	3305	2654	0015046	0083	14492								
		OBS	0050	0038	33051	2654			14492								
		STD	0075	0014	3303	2654	0015051	0120	14484								
		OBS	0075	0014	33034	2654			14484								
		STD	0100	0008	3316	2664	0014062	0157	14488								
	OBS	0100	0008	33159	2664			14488									
	OBS	0115	0002	33199	2667			14488									

REFERENCE CITY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° ' 10	LONGITUDE ° ' 10	MARSEN 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	

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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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	0176	3296	2638	0016526	0000	14544									
033		OBS	0000	0176	32964	2638			14544									
		STD	0010	0157	3297	2640	0016379	0016	14537									
		OBS	0010	0157	32967	2640			14537									
002		STD	0020	0131	3297	2642	0016161	0033	14528									
		OBS	0020	0131	32974	2642			14528									
		STD	0030	-0004	3297	2649	0015453	0049	14468									
		OBS	0030	-0004	32972	2649			14468									
		STD	0050	0000	3345	2688	0011802	0076	14480									
		OBS	0050	0000	33452	2688			14480									
		STD	0075	0025	3357	2696	0011043	0104	14497									
		OBS	0075	0025	33567	2696			14497									
		STD	0100	0032	3359	2698	0010871	0132	14505									
		OBS	0100	0032	33594	2698			14505									
		STD	0125	0060	3373	2707	0009975	0158	14523									
		OBS	0125	0060	33732	2707			14523									
		STD	0150	0064	3374	2708	0009945	0183	14529									
		OBS	0150	0064	33739	2708			14529									
		STD	0200	0085	3387	2717	0009095	0230	14549									
		OBS	0200	0085	33868	2717			14549									
		STD	0250	0259	3416	2727	0008237	0274	14638									
		OBS	0250	0259	34157	2727			14638									
		STD	0300	0204	3434	2746	0006412	0310	14625									
		OBS	0300	0204	34341	2746			14625									
		STD	0400	0265	3454	2757	0005484	0370	14671									
		OBS	0400	0265	34542	2757			14671									
		STD	0500	0369	3480	2768	0004686	0421	14735									
		OBS	0500	0369	34797	2768			14735									
		OBS	0525	0378	34827	2769			14744									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	MARS 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		
CRST CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318081	CO	4348 N	04844 W		149	38	05	23	048	1969	IIP	10511	2286	15	25	1	2			X4	0	6	0048		
						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		339		06		06		0		27			

MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D 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	CTC
		STD	0000	0393	3343	2657	0014774	0000	14644								
	048	OBS	0000	0393	33429	2657			14644								
		STD	0010	0528	3392	2681	0012504	0014	14709								
		OBS	0010	0528	33918	2681			14709								
		STD	0020	0571	3401	2683	0012326	0026	14729								
	006	OBS	0020	0571	34009	2683			14729								
		STD	0030	0621	3416	2688	0011831	0038	14753								
		OBS	0030	0621	34157	2688			14753								
		STD	0050	0563	3413	2693	0011356	0061	14733								
		OBS	0050	0563	34131	2693			14733								
		STD	0075	0631	3432	2700	0010808	0089	14767								
		OBS	0075	0631	34319	2700			14767								
		STD	0100	0546	3437	2714	0009455	0114	14737								
		OBS	0100	0546	34367	2714			14737								
		STD	0125	0366	3441	2737	0007241	0135	14667								
		OBS	0125	0366	34409	2737			14667								
		STD	0150	0364	3441	2737	0007242	0153	14670								
		OBS	0150	0364	34409	2737			14670								
		OBS	0177	0229	34339	2744			14615								
		STD	0200	0303	3457	2756	0005485	0185	14654								
		OBS	0200	0303	34571	2756			14654								
		OBS	0225	0422	34741	2758			14711								
		STD	0250	0396	3471	2758	0005380	0212	14704								
		OBS	0250	0396	34712	2758			14704								
		OBS	0270	0363	34707	2761			14693								
		STD	0300	0396	3477	2763	0005000	0238	14713								
		OBS	0300	0396	34769	2763			14713								
		STD	0400	0397	3486	2770	0004463	0286	14731								
		OBS	0400	0397	34855	2770			14731								
		STD	0500	0399	3488	2771	0004393	0330	14749								
		OBS	0500	0399	3470P	2757P											
		STD	0600	0399	3490	2773	0004377	0374	14766								
		OBS	0600	0399	34895	2773			14766								
		STD	0700	0396	3490	2773	0004407	0418	14781								
		OBS	0700	0396	34899	2773			14781								
		STD	0800	0393	3491	2774	0004398	0462	14797								
		OBS	0800	0393	34908	2774			14797								
		STD	0900	0389	3492	2776	0004347	0505	14812								
		OBS	0900	0389	34921	2776			14812								
		STD	1000	0382	3492	2777	0004338	0549	14826								
		OBS	1000	0382	34923	2777			14826								
		STD	1100	0374	3491	2776	0004411	0593	14839								
		OBS	1100	0374	34912	2776			14839								
		STD	1200	0371	3492	2777	0004438	0637	14854								
		OBS	1200	0371	34915	2777			14854								
		STD	1300	0369	3492	2777	0004498	0681	14870								
		OBS	1300	0369	34915	2777			14870								
		STD	1400	0369	3492	2778	0004530	0727	14887								
		OBS	1400	0369	34922	2778			14887								
		STD	1500	0369	3493	2778	0004562	0772	14904								
		OBS	1500	0369	34929	2778			14904								

REFERENCE		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		NOCC STATION NUMBER				
CRUISE CODE	ID. NO.					10"		1'			MO	DAY			HR.1/10	CRUISE NO.	STATION NUMBER	DIR					TYPE	AMT		
318081		CO	43415N	048355W	149	38	05	23	069	1969	IIP	10512	2926	15	25	1	2			X4	0	6		0049		
				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														
				DT	SD	24	S05		339		07	07	0	26												
MESSAGE TIME HR 1/10	CAS NO.	CARO 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 $\mu\text{g} - \text{at/l}$	TOTAL-P $\mu\text{g} - \text{at/l}$	NO ₂ -N $\mu\text{g} - \text{at/l}$	NO ₃ -N $\mu\text{g} - \text{at/l}$	Si O ₄ -Si $\mu\text{g} - \text{at/l}$	pH	S C					
		STD	0000	0708	3358		2631		0017205		0000		14775													
069		OBS	0000	0708	33579		2631						14775													
		STD	0010	0708	3358		2631		0017220		0017		14777													
		OBS	0010	0708	33579		2631						14777													
		STD	0020	0746	3391		2652		0015289		0033		14797													
003		OBS	0020	0746	33908		2652						14797													
		STD	0030	0780	3397		2652		0015318		0049		14813													
		OBS	0030	0780	33969		2652						14813													
		STD	0050	0536	3398		2685		0012153		0076		14720													
		OBS	0050	0536	33983		2685						14720													
		STD	0075	0328	3408		2715		0009314		0103		14638													
		OBS	0075	0328	34081		2715						14638													
		STD	0100	0329	3424		2727		0008166		0125		14645													
		OBS	0100	0329	34237		2727						14645													
		OBS	0120	0312	34339		2737						14642													
		STD	0125	0326	3439		2739		0007042		0144		14649													
		OBS	0125	0326	34385		2739						14649													
		STD	0150	0382	3451		2744		0006668		0161		14679													
		OBS	0150	0382	34509		2744						14679													
		STD	0200	0444	3470		2752		0005938		0193		14716													
		OBS	0200	0444	34699		2752						14716													
		OBS	0220	0428	34709		2755						14713													
		STD	0250	0475	3487		2762		0005072		0220		14739													
		OBS	0250	0475	34868		2762						14739													
		STD	0300	0478	3489		2763		0005021		0245		14749													
		OBS	0300	0478	34887		2763						14749													
		STD	0400	0440	3491		2769		0004535		0293		14750													
		OBS	0400	0440	34909		2769						14750													
		STD	0500	0428	3493		2773		0004316		0337		14762													
		OBS	0500	0428	34934		2773						14762													
		STD	0600	0416	3494		2774		0004258		0380		14773													
		OBS	0600	0416	34937		2774						14773													
		STD	0700	0410	3494		2775		0004242		0423		14788													
		OBS	0700	0410	34943		2775						14788													
		STD	0800	0389	3493		2777		0004174		0465		14795													
		OBS	0800	0389	34932		2777						14795													
		STD	0900	0383	3493		2777		0004194		0507		14809													
		OBS	0900	0383	34932		2777						14809													
		STD	1000	0379	3493		2778		0004236		0549		14824													
		OBS	1000	0379	34932		2778						14824													
		STD	1100	0373	3493		2778		0004251		0591		14839													
		OBS	1100	0373	34932		2778						14839													
		STD	1200	0365	3493		2779		0004239		0634		14852													
		OBS	1200	0365	34932		2779						14852													
		STD	1300	0364	3493		2779		0004311		0676		14868													
		OBS	1300	0364	34932		2779						14868													
		STD	1400	0363	3494		2780		0004344		0720		14885													
		OBS	1400	0363	34937		2780						14885													
		STD	1500	0358	3494		2780		0004326		0763		14900													
		OBS	1500	0358	34942		2780						14900													

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DIRT INDEX	MARSOEN 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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10	CRUISE HO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318081	CO	43325N	048150W	149	38	05	23	095	1969	11P	10513	3274	15	20	2	2			X4	016		0050		
WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS															
COLOR CODE	TRANS. (m)	OIR	SPEED OR FORCE		DRY BULB	WET BULB																		
DT	SD	21	S07	342	08	07	0	24																

318081 CO 43325N 048150W 149 38 05 23 095 1969 11P 10513 3274 15 20 2 2 X4 0 6 0050

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			

OT SD 21 SOT 342 08 07 0 24

MESSNGR TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta D$ OTN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu g \cdot ml^{-1}$	TOTAL-P $\mu g \cdot ml^{-1}$	NO ₃ -N $\mu g \cdot ml^{-1}$	NO ₃ -N $\mu g \cdot ml^{-1}$	SiO ₄ -Si $\mu g \cdot ml^{-1}$	pH	S C
095		STD	0000	0736	3364	2632	0017120	0000	14787								
		OBS	0000	0736	33640	2632			14787								
003		STD	0010	0717	3364	2635	0016853	0017	14781								
		OBS	0010	0717	33644	2635			14781								
		STD	0020	0596	3342	2633	0017027	0034	14732								
		OBS	0020	0596	33420	2633			14732								
		STD	0030	0481	3332	2639	0016471	0051	14685								
		OBS	0030	0481	33324	2639			14685								
		STD	0050	0324	3368	2684	0012254	0079	14627								
		OBS	0050	0324	33684	2684			14627								
		STD	0075	0250	3383	2702	0010517	0108	14601								
		OBS	0075	0250	33833	2702			14601								
		STD	0100	0324	3416	2722	0008670	0132	14641								
		OBS	0100	0324	34164	2722			14641								
		STD	0125	0351	3438	2736	0007337	0152	14660								
		OBS	0125	0351	34377	2736			14660								
		STD	0150	0382	3447	2741	0006931	0170	14679								
		OBS	0150	0382	34474	2741			14679								
		STD	0200	0422	3475	2759	0005320	0200	14707								
		OBS	0200	0422	34750	2759			14707								
		STD	0250	0472	3482	2759	0005404	0227	14737								
		OBS	0250	0472	34819	2759			14737								
		STD	0300	0473	3489	2764	0004979	0253	14747								
		OBS	0300	0473	34885	2764			14747								
		STD	0400	0454	3493	2769	0004545	0301	14756								
		OBS	0400	0454	34929	2769			14756								
		STD	0500	0421	3492	2772	0004334	0345	14759								
		OBS	0500	0421	34921	2772			14759								
		STD	0600	0419	3494	2774	0004292	0388	14775								
		OBS	0600	0419	34937	2774			14775								
		STD	0700	0404	3494	2775	0004217	0431	14785								
		OBS	0700	0404	34937	2775			14785								
		STD	0800	0389	3493	2777	0004159	0473	14795								
		OBS	0800	0389	34934	2777			14795								
		STD	0900	0383	3493	2777	0004180	0514	14809								
		OBS	0900	0383	34934	2777			14809								
		STD	1000	0381	3493	2777	0004245	0556	14825								
		OBS	1000	0381	34934	2777			14825								
		STD	1100	0373	3493	2778	0004237	0599	14839								
		OBS	1100	0373	34934	2778			14839								
		STD	1200	0366	3493	2778	0004288	0641	14852								
		OBS	1200	0366	34927	2778			14852								
		STD	1300	0363	3493	2779	0004335	0685	14868								
		OBS	1300	0363	34927	2779			14868								
		STD	1400	0363	3494	2780	0004330	0728	14885								
		OBS	1400	0363	34939	2780			14885								
		STD	1500	0362	3495	2780	0004355	0771	14901								
		OBS	1500	0362	34945	2780			14901								

REFERENCE		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	NODC STATION NUMBER
CRUISE CODE	ID. NO.					10°	1°	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA			
318081	CO	4320 N	04737 W	149 37	05 24 004	1969	IIP	10514	4572	15	24	2	2		X1	0 6		0051		
					WATER		WIND		AIR TEMP. °C		BARO- METER (mb)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR	TRANS- M	CUR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE									
					DT	SU	21	507	305	11	11	6	26							

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-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 ₂ -N μg - ml/l	NO ₃ -N μg - ml/l	SID ₄ -Si μg - ml/l	pH	SC
		STD	0000	0733	3312	2592	0020957	0000	14779								
	004	OBS	0000	0733	33120	2592			14779								
		STD	0010	0815	3411	2657	0014737	0018	14825								
		OBS	0010	0815	34109	2657			14825								
		STD	0020	1055	3491	2680	0012569	0031	14926								
	006	OBS	0020	1055	34909	2680			14926								
		STD	0030	1004	3481	2682	0012484	0044	14908								
		OBS	0030	1004	34809	2682			14908								
		STD	0050	1285	3551	2684	0012368	0069	15018								
		OBS	0050	1285	35509	2684			15018								
		STD	0075	1318	3567	2689	0011886	0099	15035								
		OBS	0075	1318	35671	2689			15035								
		STD	0100	1170	3531	2690	0011825	0129	14985								
		OBS	0100	1170	35309	2690			14985								
		STD	0125	1167	3543	2700	0010967	0157	14989								
		OBS	0125	1167	35427	2700			14989								
		STD	0150	1082	3528	2704	0010629	0184	14961								
		OBS	0150	1082	35276	2704			14961								
		OBS	0175	0992	35171	2712			14932								
		OBS	0187	0939	35074	2713			14913								
		STD	0200	0994	3525	2718	0009416	0234	14938								
		OBS	0200	0994	35253	2718			14938								
		STD	0250	0875	3512	2727	0008589	0279	14900								
		OBS	0250	0875	35120	2727			14900								
		STD	0300	0767	3505	2738	0007583	0320	14866								
		OBS	0300	0767	35049	2738			14866								
		STD	0400	0395	3476	2762	0005158	0384	14729								
		OBS	0400	0395	34759	2762			14729								
		STD	0500	0515	3498	2766	0005013	0434	14798								
		OBS	0500	0515	34979	2766			14798								
		STD	0600	0498	3503	2773	0004514	0482	14809								
		OBS	0600	0498	35034	2773			14809								
		STD	0700	0475	3502	2774	0004427	0527	14816								
		OBS	0700	0475	35023	2774			14816								
		STD	0800	0416	3496	2776	0004306	0570	14807								
		OBS	0800	0416	34957	2776			14807								
		STD	0900	0394	3493	2776	0004317	0614	14814								
		OBS	0900	0394	34933	2776			14814								
		STD	1000	0382	3494	2778	0004206	0656	14826								
		OBS	1000	0382	34941	2778			14826								
		STD	1100	0395	3496	2778	0004306	0699	14848								
		OBS	1100	0395	34961	2778			14848								
		STD	1200	0395	3496	2778	0004397	0742	14865								
		OBS	1200	0395	34961	2778			14865								
		STD	1300	0380	3496	2780	0004305	0786	14875								
		OBS	1300	0380	34960	2780			14875								
		STD	1400	0370	3495	2780	0004345	0829	14888								
		OBS	1400	0370	34949	2780			14888								
		OBS	1468	0367	34949	2780			14898								

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ORIGIN NO.	MARDEN 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°	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

318081	CO		4302 N	04709 W		149	37	05	24	040	1969	IIP	10515	3749	15	23	2	2		X1	0	6	0052
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
CDLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

OT	SD	23	S12	295	12	12	7	24	
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MESSENGER 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	D 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 $\mu g - \sigma_t/l$	Si D ₄ -Si $\mu g - \sigma_t/l$	pH	S C
		STD	0000	0918	3342	2587	0021366	0000	14853								
	040	OBS	0000	0918	33418	2587			14853								
		STD	0010	1251	3499	2650	0015414	0018	14994								
		OBS	0010	1251	34992	2650			14994								
		STD	0020	1464	3592	2678	0012840	0033	15077								
	005	OBS	0020	1464	35920	2678			15077								
		STD	0030	1470	3593	2677	0012929	0045	15081								
		OBS	0030	1470	35929	2677			15081								
		STD	0050	1464	3601	2685	0012288	0071	15083								
		OBS	0050	1464	36008	2685			15083								
		STD	0075	1418	3592	2688	0012073	0101	15071								
		OBS	0075	1418	35918	2688			15071								
		STD	0100	1363	3579	2689	0011980	0131	15056								
		OBS	0100	1363	35789	2689			15056								
		STD	0125	1333	3571	2690	0012012	0161	15049								
		OBS	0125	1333	35713	2690			15049								
		STD	0150	1299	3567	2693	0011738	0191	15041								
		OBS	0150	1299	35669	2693			15041								
		STD	0200	1245	3557	2697	0011531	0249	15030								
		OBS	0200	1245	35574	2697			15030								
		STD	0250	1030	3506	2697	0011560	0307	14956								
		OBS	0250	1030	35059	2697			14956								
		STD	0300	0971	3523	2720	0009443	0359	14945								
		OBS	0300	0971	35227	2720			14945								
		STD	0400	0797	3511	2738	0007760	0445	14895								
		OBS	0400	0797	35109	2738			14895								
		STD	0500	0656	3506	2754	0006277	0515	14856								
		OBS	0500	0656	35057	2754			14856								
		STD	0600	0555	3504	2766	0005229	0573	14832								
		OBS	0600	0555	35035	2766			14832								
		STD	0700	0508	3502	2770	0004854	0623	14829								
		OBS	0700	0508	35021	2770			14829								
		STD	0800	0498	3506	2775	0004564	0670	14842								
		OBS	0800	0498	35059	2775			14842								
		STD	0900	0458	3501	2775	0004531	0716	14842								
		OBS	0900	0458	35010	2775			14842								
		STD	1000	0444	3501	2777	0004466	0761	14853								
		OBS	1000	0444	35009	2777			14853								
		STD	1100	0409	3497	2777	0004436	0805	14854								
		OBS	1100	0409	34967	2777			14854								
		STD	1200	0390	3494	2777	0004482	0850	14863								
		OBS	1200	0390	34941	2777			14863								
		STD	1300	0376	3493	2778	0004446	0895	14873								
		OBS	1300	0376	34934	2778			14873								
		STD	1400	0373	3494	2779	0004471	0939	14889								
		OBS	1400	0373	34937	2779			14889								
		STD	1500	0371	3495	2780	0004442	0984	14905								
		OBS	1500	0371	34949	2780			14905								

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	EAST OR WEST	MARS DEN 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"	MD		DAY	HR.1/10			CRUISE NO.	STATION NUMBER	DIR.		HGT	PER		SEA	TYPE	AMT
318081	CO	4246 N	04633 W	149	26	05	24	083	1969	11P	10516	4206	15	22	2	2		X1	0	6	0053		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB															
DT	SD	23	S15	284	15	14	7	23															
MESSNGR TIME HR 1/10	CARD 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	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	1 C						
		STD	0000	1486	3594	2675	0013061	0000	15081														
	083	OBS	0000	1486	35944	2675			15081														
		STD	0010	1487	3594	2675	0013113	0013	15083														
		OBS	0010	1487	35944	2675			15083														
		STD	0020	1481	3593	2675	0013128	0026	15083														
	003	OBS	0020	1481	35929	2675			15083														
		STD	0030	1450	3586	2676	0013026	0039	15073														
		OBS	0030	1450	35859	2676			15073														
		STD	0050	1469	3595	2679	0012808	0065	15084														
		OBS	0050	1469	35951	2679			15084														
		STD	0075	1471	3593	2677	0013086	0097	15088														
		OBS	0075	1471	35929	2677			15088														
		STD	0100	1463	3600	2684	0012484	0129	15091														
		OBS	0100	1463	35999	2684			15091														
		STD	0125	1463	3599	2684	0012596	0161	15095														
		OBS	0125	1463	35994	2684			15095														
		STD	0150	1437	3591	2683	0012743	0192	15090														
		OBS	0150	1437	35910	2683			15090														
		STD	0200	1338	3574	2691	0012101	0255	15063														
		OBS	0200	1338	35743	2691			15063														
		STD	0250	1267	3559	2693	0011968	0315	15046														
		STD	0300	1181	3546	2700	0011429	0373	15023														
		OBS	0300	1181	35459	2700			15023														
		STD	0400	0964	3524	2722	0009452	0478	14959														
		OBS	0400	0964	35239	2722			14959														
		STD	0500	0757	3500	2736	0008150	0566	14895														
		OBS	0500	0757	34999	2736			14895														
		STD	0600	0584	3499	2759	0005949	0636	14843														
		OBS	0600	0584	34989	2759			14843														
		STD	0700	0508	3495	2765	0005387	0693	14828														
		OBS	0700	0508	34949	2765			14828														
		STD	0800	0466	3498	2772	0004744	0744	14828														
		OBS	0800	0466	34980	2772			14828														
		STD	0900	0450	3498	2774	0004659	0791	14838														
		OBS	0900	0450	34979	2774			14838														
		STD	1000	0434	3499	2776	0004496	0836	14848														
		OBS	1000	0434	34988	2776			14848														
		STD	1100	0390	3494	2777	0004407	0881	14846														
		OBS	1100	0390	34939	2777			14846														
		STD	1200	0380	3494	2778	0004372	0925	14858														
		OBS	1200	0380	34939	2778			14858														
		STD	1300	0374	3494	2779	0004384	0968	14873														
		OBS	1300	0374	34939	2779			14873														
		STD	1400	0369	3494	2779	0004376	1012	14887														
		OBS	1400	0369	34943	2779			14887														
		STD	1500	0365	3495	2780	0004350	1056	14903														
		OBS	1500	0365	34951	2780			14903														

REFERENCE CTRY CODE		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'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER	
						10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318081		CO	42053N	04622 W		149	26	05	24	154	1969	IIP	10517	4572	15	24	3	3	X1	0	6		0054
						WATER		WIND				AIR TEMP. °C											
						COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE	BARO- METER (mb)		DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						DT	SO	23	S25	264	18	17	6	25									

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. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	Si O ₄ -Si $\mu\text{g} - \text{ml/l}$	PH	CTRY CODE
154		STD	0000	1654	3613	2651	0015309	0000	15135								
		OBS	0000	1654	36134	2651			15135								
		STD	0010	1653	3613	2651	0015320	0015	15137								
		OBS	0010	1653	36134	2651			15137								
		STD	0020	1653	3622	2658	0014755	0030	15139								
005		OBS	0020	1653	36216	2658			15139								
		STD	0030	1612	3616	2663	0014293	0045	15128								
		OBS	0030	1612	36159	2663			15128								
		STD	0050	1586	3627	2677	0012985	0072	15125								
		OBS	0050	1586	36269	2677			15125								
		STD	0075	1573	3624	2678	0013029	0105	15124								
		OBS	0075	1573	36235	2678			15124								
		STD	0100	1574	3625	2679	0013015	0137	15129								
		OBS	0100	1574	36251	2679			15129								
		STD	0125	1575	3626	2679	0013058	0170	15133								
		OBS	0125	1575	36259	2679			15133								
		STD	0150	1573	3627	2680	0013043	0202	15137								
		OBS	0150	1573	36266	2680			15137								
		STD	0200	1529	3618	2684	0012849	0267	15130								
		OBS	0200	1529	36183	2684			15130								
		STD	0250	1491	3611	2686	0012748	0331	15126								
		OBS	0250	1491	36106	2686			15126								
		STD	0300	1460	3603	2687	0012802	0395	15123								
		OBS	0300	1460	36029	2687			15123								
		OBS	0333	1428	35954	2688			15117								
		STD	0400	1429	3602	2693	0012526	0522	15129								
		OBS	0400	1429	36018	2693			15129								
		STD	0500	1252	3563	2699	0012080	0645	15082								
		OBS	0500	1252	35625	2699			15082								
		STD	0600	1049	3538	2718	0010343	0757	15025								
		OBS	0600	1049	35377	2718			15025								
		STD	0700	0812	3513	2737	0008406	0851	14951								
		OBS	0700	0812	35126	2737			14951								
		STD	0800	0645	3504	2754	0006723	0926	14901								
		OBS	0800	0645	35036	2754			14901								
		STD	0900	0522	3502	2768	0005305	0986	14868								
		OBS	0900	0522	35017	2768			14868								
		STD	1000	0470	3501	2774	0004784	1037	14863								
		OBS	1000	0470	35011	2774			14863								
		STD	1100	0457	3502	2776	0004627	1084	14875								
		OBS	1100	0457	35024	2776			14875								
		STD	1200	0404	3496	2777	0004555	1130	14869								
		OBS	1200	0404	34955	2777			14869								
		STD	1300	0433	3504	2780	0004437	1175	14898								
		OBS	1300	0433	35035	2780			14898								
		STD	1400	0425	3504	2781	0004422	1219	14912								
		OBS	1400	0425	35036	2781			14912								
		STD	1500	0411	3504	2782	0004331	1263	14923								
		OBS	1500	0411	35036	2782			14923								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH FATHOMS	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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

318081	CO	4138 N	04647 W	149	16	05	24	194	1969	11P	10518	4334	15	24	3	4		X2	0	6		0055
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WATER		WIND		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED (mbs)	BARO-METER (mb)	DRY BULB	WET BULB		

DT	SD	24	S22	264	18	16	7	23
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MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-2107	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S CODE
		STD	0000	1688	3627	2653	0015113	0000	15147								
194		OBS	0000	1688	36266	2653			15147								
		STD	0010	1684	3627	2654	0015056	0015	15148								
		OBS	0010	1684	36266	2654			15148								
		STD	0020	1642	3628	2665	0014073	0030	15137								
005		OBS	0020	1642	36276	2665			15137								
		STD	0030	1633	3629	2668	0013774	0044	15136								
		OBS	0030	1633	36294	2668			15136								
		STD	0050	1608	3628	2673	0013366	0071	15131								
		OBS	0050	1608	36283	2673			15131								
		STD	0075	1564	3622	2678	0012972	0104	15121								
		OBS	0075	1564	36216	2678			15121								
		STD	0100	1539	3617	2681	0012832	0136	15117								
		OBS	0100	1539	36172	2681			15117								
		STD	0125	1520	3616	2684	0012619	0168	15115								
		OBS	0125	1520	36156	2684			15115								
		STD	0150	1504	3613	2685	0012559	0199	15114								
		OBS	0150	1504	36128	2685			15114								
		STD	0200	1486	3612	2688	0012388	0262	15116								
		STD	0250	1469	3610	2690	0012348	0323	15119								
		OBS	0250	1469	36097	2690			15119								
		STD	0300	1452	3607	2692	0012372	0385	15121								
		OBS	0300	1452	36065	2692			15121								
		STD	0400	1405	3602	2698	0011989	0507	15122								
		OBS	0400	1405	36023	2698			15122								
		STD	0500	1352	3588	2698	0012250	0628	15119								
		OBS	0500	1352	35876	2698			15119								
		STD	0600	1118	3541	2708	0011382	0746	15050								
		OBS	0600	1118	35406	2708			15050								
		STD	0700	0896	3518	2728	0007395	0850	14983								
		OBS	0700	0896	35176	2728			14983								
		STD	0800	0713	3510	2750	0007276	0934	14929								
		OBS	0800	0713	35096	2750			14929								
		STD	0900	0626	3510	2762	0006148	1001	14911								
		OBS	0900	0626	35097	2762			14911								
		STD	1000	0536	3506	2770	0005275	1058	14891								
		OBS	1000	0536	35063	2770			14891								
		STD	1100	0483	3504	2774	0004879	1109	14886								
		OBS	1100	0483	35036	2774			14886								
		STD	1200	0477	3506	2777	0004733	1157	14900								
		OBS	1200	0477	35060	2777			14900								
		STD	1300	0453	3505	2779	0004614	1203	14907								
		OBS	1300	0453	35047	2779			14907								
		STD	1400	0428	3503	2780	0004528	1249	14913								
		OBS	1400	0428	35027	2780			14913								
		STD	1500	0414	3503	2781	0004451	1294	14924								
		OBS	1500	0414	35025	2781			14924								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DATE MO DAY	MARSEN SQUARE 10° 1'	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
CTRY CODE	IO. ND.						MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081	CO	4107 N	04711 W	149	17	05 24	236	1969	IIP	10519	4114	15	24	3	2			X4	0	6		0056
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MESSENGR TIME OF MR 1/10	CAST ND.	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 $\mu g - \mu l/l$	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	3 C C

		STD	0000	1460	3434	2557	0024283	0000	15053								
236		OBS	0000	1460	34336	2557			15053								
		STD	0010	1253	3474	2630	0017332	0021	14991								
		OBS	0010	1253	34736	2630			14991								
		STD	0020	1279	3508	2652	0015291	0037	15006								
005		OBS	0020	1279	35084	2652			15006								
		STD	0030	1279	3534	2671	0013468	0051	15011								
		OBS	0030	1279	35336	2671			15011								
		STD	0050	1303	3559	2686	0012134	0077	15025								
		OBS	0050	1303	35588	2686			15025								
		STD	0075	1337	3574	2690	0011782	0107	15043								
		OBS	0075	1337	35736	2690			15043								
		STD	0100	1365	3580	2690	0011932	0137	15057								
		OBS	0100	1365	35801	2690			15057								
		STD	0125	1338	3576	2692	0011759	0166	15051								
		OBS	0125	1338	35761	2692			15051								
		STD	0150	1334	3578	2695	0011582	0195	15054								
		OBS	0150	1334	35784	2695			15054								
		STD	0200	1328	3578	2696	0011648	0254	15061								
		OBS	0200	1328	35778	2696			15061								
		STD	0250	1305	3571	2695	0011815	0312	15060								
		OBS	0250	1305	35712	2695			15060								
		STD	0300	1289	3568	2696	0011900	0371	15063								
		OBS	0300	1289	35676	2696			15063								
		STD	0400	1103	3538	2708	0010856	0485	15011								
		OBS	0400	1103	35376	2708			15011								
		STD	0500	0938	3526	2728	0009045	0585	14967								
		OBS	0500	0938	35264	2728			14967								
		STD	0600	0693	3501	2746	0007285	0666	14887								
		OBS	0600	0693	35012	2746			14887								
		STD	0700	0613	3508	2762	0005822	0732	14872								
		OBS	0700	0613	35078	2762			14872								
		STD	0800	0569	3510	2769	0005181	0787	14872								
		OBS	0800	0569	35102	2769			14872								
		STD	0900	0516	3508	2774	0004791	0837	14866								
		OBS	0900	0516	35076	2774			14866								
		STD	1000	0483	3506	2776	0004614	0884	14869								
		OBS	1000	0483	35057	2776			14869								
		STD	1100	0463	3505	2778	0004528	0930	14878								
		OBS	1100	0463	35048	2778			14878								
		STD	1200	0437	3504	2780	0004389	0974	14883								
		OBS	1200	0437	35035	2780			14883								
		STD	1300	0419	3502	2781	0004342	1018	14892								
		OBS	1300	0419	35023	2781			14892								
		STD	1400	0405	3501	2781	0004334	1061	14903								
		OBS	1400	0405	35012	2781			14903								
		STD	1500	0392	3500	2782	0004349	1105	14914								
		OBS	1500	0392	34999	2782			14914								

REFERENCE CITY CODE	SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DEPT INCHES	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	TPP		AMT										
318081	CO	4133 N	04734 W		149	17	05	25	031	1969	11P	10520	4023	15	24	3	3		X2	0	6	0057										
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS																	
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		VIS. CODE																			
					DT	SD	23	S12	240	15	14	7	24																			

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta$ 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	S CC
		STD	0000	1139	3358	2562	0023735	0000	14936								
031		OBS	0000	1139	33584	2562			14936								
		STD	0010	1121	3362	2568	0023211	0023	14931								
		OBS	0010	1121	33616	2568			14931								
		STD	0020	1064	3404	2611	0019165	0045	14918								
005		OBS	0020	1064	34036	2611			14918								
		STD	0030	1269	3491	2640	0016421	0062	15002								
		OBS	0030	1269	34908	2640			15002								
		STD	0050	1236	3542	2686	0012124	0091	15000								
		OBS	0050	1236	35416	2686			15000								
		STD	0075	1350	3579	2692	0011672	0121	15047								
		OBS	0075	1350	35786	2692			15047								
		STD	0100	1338	3578	2694	0011535	0150	15048								
		OBS	0100	1338	35782	2694			15048								
		STD	0125	1339	3581	2696	0011391	0178	15052								
		OBS	0125	1339	35814	2696			15052								
		STD	0150	1347	3585	2697	0011379	0207	15059								
		OBS	0150	1347	35847	2697			15059								
		STD	0200	1342	3581	2695	0011721	0265	15066								
		OBS	0200	1342	35806	2695			15066								
		STD	0250	1331	3577	2694	0011905	0324	15070								
		OBS	0250	1331	35770	2694			15070								
		STD	0300	1297	3568	2695	0011999	0383	15065								
		OBS	0300	1297	35684	2695			15065								
		STD	0400	1162	3549	2706	0011099	0499	15033								
		OBS	0400	1162	35490	2706			15033								
		STD	0500	0948	3526	2726	0009226	0601	14970								
		OBS	0500	0948	35262	2726			14970								
		STD	0600	0753	3508	2742	0007693	0685	14911								
		OBS	0600	0753	35076	2742			14911								
		STD	0700	0637	3512	2762	0005875	0753	14882								
		OBS	0700	0637	35116	2762			14882								
		STD	0800	0558	3507	2768	0005269	0809	14867								
		OBS	0800	0558	35070	2768			14867								
		STD	0900	0493	3503	2772	0004866	0859	14856								
		OBS	0900	0493	35025	2772			14856								
		STD	1000	0476	3506	2777	0004530	0906	14866								
		OBS	1000	0476	35056	2777			14866								
		STD	1100	0464	3505	2778	0004512	0952	14878								
		OBS	1100	0464	35052	2778			14878								
		STD	1200	0432	3502	2779	0004405	0996	14881								
		OBS	1200	0432	35024	2779			14881								
		STD	1300	0413	3501	2780	0004359	1040	14890								
		OBS	1300	0413	35010	2780			14890								
		STD	1400	0404	3501	2781	0004350	1084	14903								
		OBS	1400	0404	35008	2781			14903								
		STD	1500	0391	3500	2782	0004329	1127	14914								
		OBS	1500	0391	35000	2782			14914								

REFERENCE CTRY CODE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DAY MO YR	MARDEN 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./10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE
318081		CO	41563N	047578W	149	17	05	25	070	1969	IIP	10521	3658	15	24	3	3		X2	0	6		0058
					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	23	S16	217	15	14	7	24										

MESSING TIME 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 - 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	CTRY CODE
		STD	0000	1249	3449	2612	0019062	0000	14985								
	070	OBS	0000	1249	34487	2612			14985								
		STD	0010	1248	3456	2617	0018554	0019	14987								
		OBS	0010	1248	34557	2617			14987								
		STD	0020	1231	3516	2667	0013848	0035	14991								
	003	OBS	0020	1231	35158	2667			14991								
		STD	0030	1254	3535	2677	0012886	0048	15003								
		OBS	0030	1254	35351	2677			15003								
		STD	0050	1314	3561	2685	0012222	0073	15029								
		OBS	0050	1314	35605	2685			15029								
		STD	0075	1346	3572	2687	0012105	0104	15045								
		OBS	0075	1346	35716	2687			15045								
		STD	0100	1319	3569	2690	0011865	0134	15040								
		OBS	0100	1319	35686	2690			15040								
		STD	0125	1308	3565	2690	0011969	0164	15040								
		OBS	0125	1308	35652	2690			15040								
		STD	0150	1286	3565	2694	0011648	0193	15037								
		OBS	0150	1286	35647	2694			15037								
		STD	0200	1218	3548	2694	0011740	0252	15020								
		OBS	0200	1218	35476	2694			15020								
		STD	0250	1012	3523	2713	0010027	0306	14952								
		OBS	0250	1012	35226	2713			14952								
		STD	0300	0904	3511	2722	0009210	0354	14919								
		OBS	0300	0904	35111	2722			14919								
		STD	0400	0770	3506	2738	0007757	0439	14884								
		OBS	0400	0770	35055	2738			14884								
		STD	0500	0553	3490	2755	0006111	0508	14813								
		OBS	0500	0553	34895	2755			14813								
		STD	0600	0467	3497	2771	0004648	0562	14795								
		OBS	0600	0467	34965	2771			14795								
		STD	0700	0477	3505	2776	0004244	0607	14817								
		OBS	0700	0477	35051	2776			14817								
		STD	0800	0471	3506	2778	0004215	0649	14831								
		OBS	0800	0471	35060	2778			14831								
		STD	0900	0454	3505	2778	0004222	0691	14840								
		OBS	0900	0454	35045	2778			14840								
		STD	1000	0437	3504	2780	0004179	0733	14850								
		OBS	1000	0437	35036	2780			14850								
		STD	1100	0423	3503	2780	0004169	0775	14861								
		OBS	1100	0423	35027	2780			14861								
		STD	1200	0389	3498	2781	0004153	0816	14863								
		OBS	1200	0389	34984	2781			14863								
		STD	1300	0382	3498	2781	0004183	0858	14876								
		OBS	1300	0382	34980	2781			14876								
		STD	1400	0377	3500	2783	0004089	0899	14891								
		OBS	1400	0377	34996	2783			14891								
		STD	1500	0376	3501	2784	0004097	0940	14908								
		OBS	1500	0376	35005	2784			14908								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH FATHOMS	MARS 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
STW CODE	IO. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	4221 N	04825 W		149	28	05	25	108	1969	IIP	10522	3310	15	25	5	3		X4	0	6	0059
						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	SD	23	S17	196	13	12	6	25													
MESSNGR 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	§ C					
		STD	0000	0771	3318	2591	0021041		0000	14794													
	108	OBS	0000	0771	33177	2591				14794													
		STD	0010	0764	3318	2592	0020962		0021	14793													
		OBS	0010	0764	33177	2592				14793													
		STD	0020	0696	3326	2607	0019488		0041	14769													
	005	OBS	0020	0696	33256	2607				14769													
		STD	0030	0616	3330	2621	0018213		0060	14740													
		OBS	0030	0616	33295	2621				14740													
		STD	0050	0400	3344	2657	0014827		0093	14656													
		OBS	0050	0400	33436	2657				14656													
		STD	0075	0326	3366	2682	0012446		0127	14631													
		OBS	0075	0326	33663	2682				14631													
		STD	0100	0296	3388	2702	0010530		0156	14626													
		OBS	0100	0296	33884	2702				14626													
		STD	0125	0336	3414	2718	0009009		0180	14650													
		OBS	0125	0336	34136	2718				14650													
		STD	0150	0383	3435	2730	0007910		0201	14677													
		OBS	0150	0383	34345	2730				14677													
		STD	0200	0399	3454	2745	0006623		0238	14695													
		OBS	0200	0399	34544	2745				14695													
		OBS	0235	0371	34571	2750				14689													
		STD	0250	0402	3470	2757	0005510		0268	14707													
		OBS	0250	0402	34703	2757				14707													
		STD	0300	0448	3487	2765	0004839		0294	14736													
		OBS	0300	0448	34866	2765				14736													
		STD	0400	0460	3496	2771	0004420		0340	14759													
		OBS	0400	0460	34955	2771				14759													
		STD	0500	0435	3498	2776	0004046		0383	14765													
		OBS	0500	0435	34981	2776				14765													
		STD	0600	0420	3497	2777	0004029		0423	14776													
		OBS	0600	0420	34974	2777				14776													
		STD	0700	0401	3497	2778	0003960		0463	14784													
		OBS	0700	0401	34967	2778				14784													
		STD	0800	0389	3496	2779	0003952		0503	14796													
		OBS	0800	0389	34962	2779				14796													
		STD	0900	0379	3496	2780	0003933		0542	14808													
		OBS	0900	0379	34961	2780				14808													
		STD	1000	0375	3497	2781	0003900		0581	14823													
		OBS	1000	0375	34971	2781				14823													
		STD	1100	0371	3498	2782	0003903		0620	14838													
		OBS	1100	0371	34976	2782				14838													
		STD	1200	0369	3498	2783	0003920		0659	14854													
		OBS	1200	0369	34982	2783				14854													
		STD	1300	0362	3498	2783	0003918		0698	14868													
		OBS	1300	0362	34982	2783				14868													
		STD	1400	0362	3500	2785	0003884		0737	14885													
		OBS	1400	0362	34998	2785				14885													
		STD	1500	0360	3500	2785	0003912		0776	14901													
		OBS	1500	0360	35002	2785				14901													

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARDEN 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			
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	NGT	PER		SEA	TYPE		AMT		
318081		CO	42350N	048439W		149	28	05	25	142	1969	IIP	10523	2853	15	23	4	2		X2	0	6		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													
						DT	SD	23	S20		173	13				12	6	27							
MESSING TIME OF NR 1/10	CARD 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 ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	PH							
		STD	0000	0794	3322	2591		0021045	0000	14804															
	142	OBS	0000	0794	33219	2591				14804															
		STD	0010	0796	3322	2591		0021073	0021	14806															
		OBS	0010	0796	33221	2591				14806															
		STD	0020	0596	3319	2615		0018779	0041	14728															
	004	OBS	0020	0596	33186	2615				14728															
		STD	0030	0506	3354	2653		0015148	0058	14698															
		OBS	0030	0506	33536	2653				14698															
		STD	0050	0364	3369	2680		0012602	0086	14644															
		OBS	0050	0364	33686	2680				14644															
		STD	0075	0296	3389	2702		0010501	0115	14622															
		OBS	0075	0296	33886	2702				14622															
		STD	0100	0316	3417	2723		0008545	0138	14638															
		OBS	0100	0316	34171	2723				14638															
		STD	0125	0336	3432	2733		0007617	0159	14653															
		OBS	0125	0336	34321	2733				14653															
		STD	0150	0429	3449	2737		0007322	0177	14699															
		OBS	0150	0429	34486	2737				14699															
		OBS	0170	0413	34526	2742				14696															
		OBS	0182	0464	34635	2745				14720															
		STD	0200	0448	3464	2747		0006460	0212	14717															
		OBS	0200	0448	34635	2747				14717															
		OBS	0220	0412	34636	2751				14705															
		STD	0250	0524	3492	2760		0005282	0241	14760															
		OBS	0250	0524	34916	2760				14760															
		STD	0300	0426	3492	2771		0004215	0265	14728															
		OBS	0300	0426	34917	2771				14728															
		STD	0400	0515	3504	2771		0004459	0308	14783															
		OBS	0400	0515	35037	2771				14783															
		STD	0500	0482	3504	2775		0004181	0351	14786															
		OBS	0500	0482	35037	2775				14786															
		STD	0600	0452	3502	2777		0004053	0393	14790															
		OBS	0600	0452	35021	2777				14790															
		STD	0700	0418	3499	2778		0004009	0433	14792															
		OBS	0700	0418	34987	2778				14792															
		STD	0800	0396	3497	2779		0003974	0473	14799															
		OBS	0800	0396	34970	2779				14799															
		STD	0900	0389	3497	2780		0003977	0513	14812															
		OBS	0900	0389	34971	2780				14812															
		STD	1000	0383	3497	2780		0004011	0552	14827															
		OBS	1000	0383	34969	2780				14827															
		STD	1100	0381	3498	2781		0004009	0593	14843															
		OBS	1100	0381	34978	2781				14843															
		STD	1200	0380	3499	2782		0003990	0633	14859															
		OBS	1200	0380	34991	2782				14859															
		STD	1300	0378	3499	2782		0004052	0673	14875															
		OBS	1300	0378	34991	2782				14875															
		STD	1400	0371	3499	2783		0004064	0713	14889															
		OBS	1400	0371	34989	2783				14889															
		STD	1500	0371	3500	2784		0004061	0754	14906															
		OBS	1500	0371	35001	2784				14906															

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	MARS 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.	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
					10°	1°	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318081	CO	4249 N	04858 W	149	28	05	25	173	1969	11P	10524		2268	15	25	4	3		X1	0	6		0061		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS		NO. OBS. DEPTHS		SPECIAL											
COLOR CODE		TRANS. IM		DIR.		SPEED OF FORCE		DRY BULB		WET BULB		VIS CODE		NO. OBS. DEPTHS		SPECIAL									
DT		SD		27		S15		169		09		08		7		29									
MESSAGE TIME HR 1/10	CAS 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	TOTAL-P μg - dl/l	NO ₃ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	S COD								
173		STD	0000	0344	3310	2635	0016828	0000	14619																
		OBS	0000	0344	33097	2635			14619																
		STD	0010	0343	3312	2637	0016675	0017	14621																
004		OBS	0010	0343	33117	2637			14621																
		STD	0020	0343	3320	2643	0016084	0033	14623																
		OBS	0020	0343	33196	2643			14623																
		STD	0030	0346	3348	2666	0013953	0048	14630																
		OBS	0030	0346	33483	2666			14630																
		STD	0050	0517	3418	2702	0010493	0073	14714																
		OBS	0050	0517	34176	2702			14714																
		STD	0075	0694	3454	2709	0009973	0098	14794																
		OBS	0075	0694	3554P	2787P																			
		OBS	0091	0727	34647	2712			14811																
		STD	0100	0683	3467	2720	0008928	0122	14796																
		OBS	0100	0683	34666	2720			14796																
		STD	0125	0738	3483	2725	0008531	0144	14824																
		OBS	0125	0738	34825	2725			14824																
		STD	0150	0723	3487	2731	0008001	0164	14822																
		OBS	0150	0723	34874	2731			14822																
		OBS	0180	0698	34876	2734			14818																
		STD	0200	0752	3501	2737	0007497	0203	14844																
		OBS	0200	0752	35008	2737			14844																
		STD	0250	0437	3473	2755	0005697	0236	14722																
		OBS	0250	0437	34728	2755			14722																
		STD	0300	0452	3475	2756	0005720	0265	14736																
		OBS	0300	0452	34754	2756			14736																
		OBS	0312	0333	34728	2766			14688																
		OBS	0365	0425	34864	2767			14737																
		STD	0400	0388	3482	2767	0004665	0316	14727																
		OBS	0400	0388	34815	2767			14727																
		OBS	0430	0378	34819	2769			14728																
		STD	0500	0411	3493	2774	0004184	0361	14755																
		OBS	0500	0411	34926	2774			14755																
		STD	0600	0412	3496	2776	0004078	0402	14772																
		OBS	0600	0412	34955	2776			14772																
		STD	0700	0401	3495	2777	0004063	0443	14784																
		OBS	0700	0401	34953	2777			14784																
		STD	0800	0382	3494	2778	0004063	0483	14792																
		OBS	0800	0382	34936	2778			14792																
		STD	0900	0382	3495	2779	0004050	0524	14809																
		OBS	0900	0382	34950	2779			14809																
		STD	1000	0382	3497	2780	0004028	0564	14826																
		OBS	1000	0382	34965	2780			14826																
		STD	1100	0372	3496	2780	0004062	0605	14838																
		OBS	1100	0372	34956	2780			14838																
		STD	1200	0370	3496	2781	0004109	0646	14854																
		OBS	1200	0370	34958	2781			14854																
		STD	1300	0368	3497	2781	0004103	0687	14870																
178		OBS	1300	0368	34967	2781			14870																
		STD	1400	0365	3498	2782	0004091	0728	14886																
		OBS	1400	0365	34975	2782			14886																
		STD	1500	0364	3498	2783	0004095	0769	14903																
004		OBS	1500	0364	34984	2783			14903																

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		NOOC STATION NUMBER
CTRY CODE	IO. NO.					10°	1°	MO	DAY	HR./10	CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081		CO	4300 N	04911 W		149	39	05	25	198	1969	IIP	10525	1170	11	25	4	3		X4	0	6	0062
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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	30	508	186	06	05	5	20	
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MESSAGE TIME 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 - 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	1 C
	198	STD	0000	0269	3315	2646	0015791	0000	14588								
		OBS	0000	0269	33151	2646			14588								
		STD	0010	0306	3332	2656	0014852	0015	14607								
		OBS	0010	0306	33316	2656			14607								
		STD	0020	0573	3410	2690	0011661	0029	14731								
	003	OBS	0020	0573	34101	2690			14731								
		STD	0030	0543	3408	2692	0011475	0040	14720								
		OBS	0030	0543	34081	2692			14720								
		STD	0050	0529	3419	2702	0010546	0062	14719								
		OBS	0050	0529	34187	2702			14719								
		STD	0075	0481	3439	2724	0008490	0086	14707								
		OBS	0075	0481	34394	2724			14707								
		STD	0100	0193	3425	2740	0006915	0105	14586								
		OBS	0100	0193	34252	2740			14586								
		STD	0125	0249	3436	2744	0006555	0122	14616								
		STD	0150	0276	3444	2748	0006227	0138	14633								
		OBS	0150	0276	34436	2748			14633								
		STD	0200	0242	3448	2754	0005663	0168	14627								
		OBS	0200	0242	34476	2754			14627								
		STD	0250	0321	3467	2762	0004939	0194	14672								
		OBS	0250	0321	34671	2762			14672								
		STD	0300	0335	3473	2766	0004686	0218	14687								
		OBS	0300	0335	34728	2766			14687								
		OBS	0350	0462	34921	2768			14751								
		STD	0400	0449	3493	2770	0004458	0264	14754								
		OBS	0400	0449	34933	2770			14754								
		STD	0500	0408	3492	2773	0004210	0307	14753								
		OBS	0500	0408	34918	2773			14753								
		STD	0600	0402	3493	2775	0004120	0349	14768								
		OBS	0600	0402	34934	2775			14768								
		STD	0700	0397	3494	2776	0004099	0390	14782								
		OBS	0700	0397	34942	2776			14782								
		STD	0800	0391	3494	2777	0004123	0431	14796								
		OBS	0800	0391	34942	2777			14796								
		STD	0900	0388	3495	2778	0004150	0473	14812								
		OBS	0900	0388	34946	2778			14812								
		STD	1000	0384	3495	2779	0004148	0514	14827								
		OBS	1000	0384	34952	2779			14827								
		STD	1100	0379	3495	2779	0004184	0556	14841								
		OBS	1100	0379	34951	2779			14841								

REFERENCE	SHIP	LATITUDE	LONGITUDE	DEPTH	MARSDEN	STATION TIME				YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE			WEA-	CLOUD	NOOC
						10"	1"	MO	DAY	HR./10	CRUISE	STATION			DIR	HGT	PER	SEA		
CTRY	ID.	1/10	1/10	1/10	10"	1"	MO	DAY	HR./10	YEAR	NO.	NUMBER	TO	OF				CODE	TYPE	STATION
CODE	NO.												BOTTOM	S'MPL'S						NUMBER

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta D$ QYN. 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	3 C
		STD	0000	0608	3292	2592	0020888	0000	14727								
034		OBS	0000	0608	32920	2592			14727								
		STD	0010	0395	3299	2621	0018137	0020	14641								
		OBS	0010	0395	32986	2621			14641								
		STD	0020	0062	3314	2660	0014468	0036	14499								
002		OBS	0020	0062	33144	2660			14499								
		STD	0030	0003	3321	2668	0013667	0050	14474								
		OBS	0030	0003	33210	2668			14474								
		STD	0050	-0013	3342	2686	0012009	0076	14473								
		OBS	0050	-0013	33417	2686			14473								
		STD	0075	0009	3351	2692	0011412	0105	14489								
		OBS	0075	0009	33508	2692			14489								
		STD	0100	0019	3355	2695	0011169	0133	14498								
		OBS	0100	0019	33546	2695			14498								

REFERENCE	SHIP	LATITUDE	LONGITUDE	DEPTH	MARSDEN	STATION TIME				YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE			WEA-	CLOUD	NOOC
						10"	1"	MO	DAY	HR./10	CRUISE	STATION			DIR	HGT	PER	SEA		
CTRY	ID.	1/10	1/10	1/10	10"	1"	MO	DAY	HR./10	YEAR	NO.	NUMBER	TO	OF				CODE	TYPE	STATION
CODE	NO.												BOTTOM	S'MPL'S						NUMBER

MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	Σ Δ D DTN. 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	3 C
		STD	0000	0474	3298	2613	0018962	0000	14672								
045		OBS	0000	0474	32979	2613			14672								
		STD	0010	0408	3300	2621	0018156	0019	14647								
		OBS	0010	0408	33000	2621			14647								
003		STD	0020	0337	3303	2630	0017284	0036	14619								
		OBS	0020	0337	33030	2630			14619								
		STD	0030	0235	3310	2644	0015955	0053	14577								
		OBS	0030	0235	33096	2644			14577								
		STD	0050	0445	3396	2693	0011368	0080	14682								
		OBS	0050	0445	33956	2693			14682								
		STD	0075	0155	3369	2698	0010890	0108	14557								
		STD	0100	0092	3369	2702	0010515	0135	14533								
		OBS	0100	0092	33686	2702			14533								
		OBS	0124	0245	3429P	2739P											
		STD	0125	0245	3394	2711	0009722	0160	14608								
		OBS	0125	0245	33936	2711			14608								
		STD	0150	0139	3385	2712	0009553	0184	14565								
		OBS	0150	0139	33854	2712			14565								
		STD	0200	0113	3387	2715	0009233	0231	14562								
		OBS	0200	0113	33874	2715			14562								
		STD	0250	0101	3394	2722	0008628	0276	14565								
		OBS	0250	0101	33944	2722			14565								
		STD	0300	0180	3425	2741	0006897	0315	14613								
		OBS	0300	0180	34251	2741			14613								
		STD	0400	0327	3469	2763	0004985	0374	14699								
		OBS	0400	0327	34688	2763			14699								
		STD	0500	0359	3480	2769	0004572	0422	14731								
		OBS	0500	0359	34798	2769			14731								
		STD	0600	0369	3482	2770	0004609	0468	14752								
		OBS	0600	0369	34819	2770			14752								
		OBS	0630	0369	34826	2770			14757								

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE MO DAY	MARSOEN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
												DIR.	HGT	PER	SEA		TYPE	AMT	

318081	CO	4241 N	05020 W	150 20 05 26 062	1969	11P	10528	1463	13	22	3	3				X2	0	6	0065
				WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO-METER (mb)	ORY BULB	WET BULB	VIS. CODE								
				DT	SD	25	S05	210	05	04	6	23							

MESSAGE TIME HR 1/10	CAST OF NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ O 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	CC
		STD	0000	0316	3298	2628	0017500	0000	14606								
062		OBS	0000	0316	32976	2628			14606								
		STD	0010	0316	3298	2628	0017505	0018	14607								
		OBS	0010	0316	32976	2628			14607								
		STD	0020	0316	3298	2628	0017510	0035	14609								
004		OBS	0020	0316	32976	2628			14609								
		STD	0030	0316	3305	2634	0016964	0052	14611								
		OBS	0030	0316	3497P	2787P											
		STD	0050	0204	3320	2655	0014974	0084	14568								
		OBS	0050	0204	33196	2655			14568								
		STD	0075	0595	3429	2702	0010618	0116	14752								
		OBS	0075	0595	34285	2702			14752								
		STD	0100	0580	3450	2720	0008894	0141	14753								
		OBS	0100	0580	34496	2720			14753								
		STD	0125	0617	3462	2725	0008488	0162	14773								
		OBS	0125	0617	34616	2725			14773								
		STD	0150	0376	3436	2732	0007720	0183	14675								
		OBS	0150	0376	34361	2732			14675								
		STD	0200	0378	3452	2745	0006560	0218	14686								
		OBS	0200	0378	34524	2745			14686								
		STD	0250	0437	3469	2753	0005951	0250	14721								
		OBS	0250	0437	34694	2753			14721								
		STD	0300	0465	3481	2758	0005478	0278	14742								
		OBS	0300	0465	34806	2758			14742								
		STD	0400	0437	3484	2764	0005045	0331	14748								
		OBS	0400	0437	34836	2764			14748								
		OBS	0450	0408	34856	2768			14744								
		STD	0500	0430	3491	2770	0004547	0379	14762								
		OBS	0500	0430	34906	2770			14762								
		STD	0600	0426	3492	2771	0004529	0424	14777								
		OBS	0600	0426	34916	2771			14777								
		STD	0700	0417	3492	2773	0004501	0469	14790								
		OBS	0700	0417	34919	2773			14790								
		STD	0800	0397	3490	2773	0004475	0514	14798								
		OBS	0800	0397	34904	2773			14798								
		STD	0900	0392	3492	2776	0004360	0558	14813								
		OBS	0900	0392	34924	2776			14813								
		STD	1000	0374	3491	2776	0004369	0602	14822								
		OBS	1000	0374	34906	2776			14822								
		STD	1100	0368	3491	2777	0004324	0645	14836								
		OBS	1100	0368	34914	2777			14836								
		STD	1200	0368	3494	2779	0004247	0688	14853								
		OBS	1200	0368	34936	2779			14853								
		STD	1300	0367	3493	2779	0004341	0731	14870								
		OBS	1300	0367	34933	2779			14870								

REFERENCE CITY CODE	SHIP NO.	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT FOOT	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			OIL	HGT	PER		SEA	TYPE		AMT
318081	CO	4233 N	05020 W	150	20	05	26	078	1969	IIP	10529	2067	15	21	3	3		X2	0	6	0066	
					WATER		WIND		AIR TEMP. °C		BARO- METER		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
					COLOR	TRANS.	DIR.	SPEED OR FORCE	BARO- METER (mbars)	DRY TEMP. °C		WET BULB		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS				
					DT	SD	11	S05	207	09	08	7	26									

MESSING TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Δ 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	SiO ₄ -Si μg - dl/l	pH	°C
		STD	0000	0744	3308	2587	0021431	0000	14783								
078		OBS	0000	0744	33076	2587			14783								
		STD	0010	0656	3312	2602	0020015	0021	14750								
		OBS	0010	0656	33116	2602			14750								
003		STD	0020	0645	3365	2645	0015872	0039	14754								
		OBS	0020	0645	33654	2645			14754								
		STD	0030	0449	3356	2661	0014396	0054	14675								
		OBS	0030	0449	33556	2661			14675								
		STD	0050	0498	3388	2681	0012532	0081	14703								
		OBS	0050	0498	33876	2681			14703								
		STD	0075	0552	3433	2710	0009800	0109	14735								
		OBS	0075	0552	34326	2710			14735								
		STD	0100	0468	3430	2718	0009110	0132	14704								
		OBS	0100	0468	34296	2718			14704								
		STD	0125	0585	3464	2731	0007943	0154	14760								
		OBS	0125	0585	34636	2731			14760								
		STD	0150	0715	3489	2733	0007743	0173	14820								
		OBS	0150	0715	34894	2733			14820								
		STD	0200	0395	3456	2746	0006492	0209	14693								
		OBS	0200	0395	34556	2746			14693								
		STD	0215	0334	34496	2747			14669								
		OBS	0215	0334	34496	2747			14669								
		STD	0250	0431	3470	2753	0005871	0240	14719								
		OBS	0250	0431	34696	2753			14719								
		STD	0300	0438	3477	2758	0005475	0268	14731								
		OBS	0300	0438	34766	2758			14731								
		STD	0350	0461	34868	2764			14750								
		OBS	0350	0461	34868	2764			14750								
		STD	0400	0438	3487	2766	0004818	0320	14749								
		OBS	0400	0438	34868	2766			14749								
		STD	0500	0413	3490	2771	0004415	0366	14755								
		OBS	0500	0413	34898	2771			14755								
		STD	0600	0401	3490	2773	0004347	0410	14767								
		OBS	0600	0401	34902	2773			14767								
		STD	0700	0388	3490	2774	0004293	0453	14778								
		OBS	0700	0388	34902	2774			14778								
		STD	0800	0382	3490	2775	0004301	0496	14792								
		OBS	0800	0382	34904	2775			14792								
		STD	0900	0379	3490	2775	0004355	0539	14807								
		OBS	0900	0379	34904	2775			14807								
		STD	1000	0377	3491	2776	0004390	0583	14823								
		OBS	1000	0377	34908	2776			14823								
		STD	1100	0372	3491	2777	0004372	0626	14838								
		OBS	1100	0372	34914	2777			14838								
		STD	1200	0372	3492	2778	0004384	0670	14855								
		OBS	1200	0372	34924	2778			14855								
		STD	1300	0370	3493	2778	0004393	0714	14871								
		OBS	1300	0370	34931	2778			14871								
		STD	1400	0368	3494	2779	0004415	0758	14887								
		OBS	1400	0368	34936	2779			14887								
		STD	1500	0364	3494	2780	0004395	0802	14902								
		OBS	1500	0364	34943	2780			14902								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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.1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

318081	CO	42145N	050185W	150	20	05	26	102	1969	IIP	10530	2963	15	19	3	3		X4	016		0067	
					WATER		WIND		BARO-		AIR TEMP. °C											
					COLOR	TRANS.	DIR.	SPEED	METER		DRY	WET	WIS.	NO.								
					CODE	PMI		OR	FORCE	mbars	BULB	BULB	CODE	OBS.								
					DT	SD	19	SL2	210		14	13	3	24								

MESSNGR TIME HR 1/10	CST NO.	CARGO 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 ₂ -N μg - at/l	SIO ₄ -Si μg - at/l	pH
		STD	0000	1279	3504	2648	0015590	0000	15002							
102		OBS	0000	1279	35036	2648			15002							
		STD	0010	1255	3498	2648	0015606	0016	14995							
		OBS	0010	1255	34976	2648			14995							
		STD	0020	1245	3539	2682	0012434	0030	14998							
003		OBS	0020	1245	35386	2682			14998							
		STD	0030	1357	3569	2683	0012363	0042	15041							
		OBS	0030	1357	35693	2683			15041							
		STD	0050	1377	3579	2686	0012145	0067	15052							
		OBS	0050	1377	35785	2686			15052							
		STD	0075	1315	3566	2689	0011886	0097	15034							
		OBS	0075	1315	35663	2689			15034							
		STD	0100	1281	3560	2691	0011752	0126	15026							
		OBS	0100	1281	35601	2691			15026							
		STD	0125	1230	3550	2693	0011622	0155	15012							
		OBS	0125	1230	35496	2693			15012							
		STD	0150	1121	3527	2696	0011379	0184	14975							
		OBS	0150	1121	35267	2696			14975							
		STD	0200	0929	3515	2720	0009146	0235	14912							
		OBS	0200	0929	35146	2720			14912							
		STD	0250	0872	3508	2724	0008874	0280	14899							
		OBS	0250	0872	35075	2724			14899							
		STD	0300	0735	3494	2734	0007967	0323	14853							
		OBS	0300	0735	34935	2734			14853							
		STD	0400	0627	3496	2751	0006447	0395	14827							
		OBS	0400	0627	34961	2751			14827							
		STD	0500	0536	3499	2765	0005192	0453	14807							
		OBS	0500	0536	34990	2765			14807							
		STD	0600	0487	3498	2770	0004765	0503	14803							
		OBS	0600	0487	34982	2770			14803							
		STD	0700	0471	3500	2773	0004541	0549	14814							
		OBS	0700	0471	35001	2773			14814							
		STD	0800	0433	3498	2775	0004355	0594	14814							
		OBS	0800	0433	34978	2775			14814							
		STD	0900	0426	3498	2776	0004370	0637	14828							
		OBS	0900	0426	34978	2776			14828							
		STD	1000	0398	3495	2777	0004302	0681	14833							
		OBS	1000	0398	34954	2777			14833							
		STD	1100	0396	3496	2778	0004348	0724	14849							
		OBS	1100	0396	34957	2778			14849							
		STD	1200	0389	3498	2780	0004219	0767	14863							
		OBS	1200	0389	34975	2780			14863							
		STD	1300	0389	3498	2780	0004301	0809	14879							
		OBS	1300	0389	34976	2780			14879							
		STD	1400	0385	3498	2780	0004339	0852	14894							
		OBS	1400	0385	34976	2780			14894							
		STD	1500	0380	3498	2781	0004354	0896	14909							
		OBS	1500	0380	34977	2781			14909							

REFERENCE CITY CODE	SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DEPT MOOR	MARDEN 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															
					WATER		WIND		HARD- METER (mbal)			AIR TEMP. °C				VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS									
					CDLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB															
					DT	SD	21	S10	217	14	13	1	26														
318081	CO	41555N	05017 W	150	10	05	26	125	1969	IIP	10531	3475	15	22	5	3			X4	0	6		0068				

REFERENCE	SNIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARSSEN 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		
					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318081	CO	4133 N	05015 W	150	10	05	26 157	1969	11P	10532	3566	15	21	3	2		X4	0	6		0069	
					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	20	S08	240	15					14	2	30					
MESSENGER TIME NR 1/10	CAST NO.	CARO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ σ 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	SiO ₄ -Si μg - ml/l	pH						
157	STD		0000	0882	3283	2547	0025223	0000	14832													
	OBS		0000	0882	32826	2547			14832													
004	STD		0010	0749	3274	2559	0024047	0025	14782													
	OBS		0010	0749	32736	2559			14782													
	STD		0020	0865	3318	2577	0022409	0048	14834													
	OBS		0020	0865	33176	2577			14834													
	STD		0030	1035	3372	2591	0021069	0070	14905													
	OBS		0030	1035	33716	2591			14905													
	STD		0050	1315	3531	2662	0014433	0105	15026													
	OBS		0050	1315	35306	2662			15026													
	STD		0075	1227	3550	2695	0011376	0137	15003													
	OBS		0075	1227	35504	2695			15003													
	STD		0100	1215	3546	2694	0011534	0166	15002													
	OBS		0100	1215	35461	2694			15002													
	STD		0125	0960	3494	2699	0011007	0194	14909													
	OBS		0130	0918	34858	2700			14893													
	STD		0150	0777	3463	2703	0010599	0221	14840													
	OBS		0150	0777	34626	2703			14840													
	OBS		0165	0716	34528	2705			14818													
	STD		0200	0864	3497	2717	0009459	0271	14886													
	OBS		0200	0864	34966	2717			14886													
	OBS		0215	0891	35041	2718			14899													
OBS		0235	0770	34796	2718			14854														
STD		0250	0785	3488	2722	0009037	0318	14863														
OBS		0250	0785	34876	2722			14863														
STD		0300	0745	3500	2737	0007658	0359	14857														
OBS		0300	0745	34996	2737			14857														
OBS		0355	0433	34656	2750			14736														
STD		0400	0479	3481	2757	0005735	0426	14765														
OBS		0400	0479	34808	2757			14765														
STD		0500	0433	3486	2766	0004961	0480	14763														
OBS		0500	0433	34855	2766			14763														
OBS		0522	0414	34838	2766			14758														
OBS		0550	0438	34901	2769			14774														
STD		0600	0419	3489	2770	0004664	0528	14774														
OBS		0600	0419	34887	2770			14774														
STD		0700	0422	3494	2774	0004389	0573	14793														
OBS		0700	0422	34942	2774			14793														
STD		0800	0432	3496	2774	0004498	0618	14814														
OBS		0800	0432	34957	2774			14814														
STD		0900	0426	3497	2775	0004466	0662	14828														
OBS		0900	0426	34965	2775			14828														
STD		1000	0422	3498	2777	0004398	0707	14843														
OBS		1000	0422	34981	2777			14843														
STD		1100	0418	3498	2777	0004460	0751	14858														
OBS		1100	0418	34979	2777			14858														
STD		1200	0404	3497	2778	0004452	0796	14869														
OBS		1200	0404	34969	2778			14869														
STD		1300	0395	3496	2778	0004473	0840	14882														
OBS		1300	0395	34963	2778			14882														
STD		1400	0384	3496	2779	0004473	0885	14894														
OBS		1400	0384	34956	2779			14894														
STD		1500	0378	3496	2779	0004489	0930	14908														
OBS		1500	0378	34955	2779			14908														

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MO	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NOCC STATION NUMBER
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
318081	C0	41015N	05011 W	150	10	05	26	201	1969	11P	10533	4060	15	20	3	3		X2	0	6		0070
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTNS	SPECIAL OBSERVATIONS								
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbal)	DRY BULB	WET BULB												
				DT	SD	19	S08	210	16	15	7		26									
MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma$ OYN. 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	1 C C					
201		STD	0000	1215	3357	2547	0025178	0000	14962													
		OBS	0000	1215	33571	2547			14962													
		STD	0010	1243	3394	2570	0023027	0024	14978													
005		OBS	0010	1243	33936	2570			14978													
		STD	0020	1415	3541	2649	0015595	0043	15055													
		OBS	0020	1415	35406	2649			15055													
		STD	0030	1340	3551	2672	0013399	0058	15033													
		OBS	0030	1340	35506	2672			15033													
		STD	0050	1405	3578	2680	0012752	0084	15061													
		OBS	0050	1405	35779	2680			15061													
		STD	0075	1381	3577	2684	0012436	0116	15057													
		OBS	0075	1381	35766	2684			15057													
		STD	0100	1336	3570	2688	0012118	0146	15046													
		OBS	0100	1336	35697	2688			15046													
		STD	0125	1311	3570	2693	0011705	0176	15042													
		OBS	0125	1311	35696	2693			15042													
		STD	0150	1305	3568	2692	0011804	0205	15043													
		OBS	0150	1305	35676	2692			15043													
		STD	0200	1267	3560	2694	0011754	0264	15038													
		OBS	0200	1267	35601	2694			15038													
		STD	0250	1168	3543	2700	0011306	0322	15010													
		OBS	0250	1168	35426	2700			15010													
		STD	0300	1122	3541	2707	0010739	0377	15002													
		OBS	0300	1122	35406	2707			15002													
		OBS	0386	0872	35111	2727			14921													
		STD	0400	0808	3502	2730	0008605	0474	14898													
		OBS	0400	0808	35017	2730			14898													
		OBS	0412	0851	35124	2731			14918													
		STD	0500	0645	3496	2748	0006851	0551	14850													
		OBS	0500	0645	34959	2748			14850													
		STD	0600	0522	3493	2761	0005607	0613	14817													
		OBS	0600	0522	34927	2761			14817													
		STD	0700	0490	3493	2765	0005294	0668	14821													
		OBS	0700	0490	34931	2765			14821													
		STD	0800	0490	3500	2771	0004898	0719	14838													
		OBS	0800	0490	35000	2771			14838													
		STD	0900	0470	3501	2774	0004712	0767	14847													
		OBS	0900	0470	35006	2774			14847													
		STD	1000	0452	3500	2775	0004627	0814	14856													
		OBS	1000	0452	35001	2775			14856													
		STD	1100	0441	3500	2776	0004597	0860	14868													
		OBS	1100	0441	35000	2776			14868													
		STD	1200	0429	3500	2778	0004550	0905	14880													
		OBS	1200	0429	34999	2778			14880													
		STD	1300	0412	3499	2779	0004471	0951	14889													
		OBS	1300	0412	34993	2779			14889													
		STD	1400	0399	3499	2780	0004446	0995	14900													
		OBS	1400	0399	34986	2780			14900													
		STD	1500	0385	3499	2781	0004353	1039	14911													
		OBS	1500	0385	34986	2781			14911													

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	SURF BROCK	MARSEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTN TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
					10"	1"	MO	OAT HR./1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT	

318081	CO	4034 N	05009 W	150	00	05	26	231	1969	IIP	10534	3931	13	20	2	2		X2	0	6		0071
					WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB											
					DT	SD	19	515		210	19	18	7	23								

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta \sigma$ CYC. 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 ₂ -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	Σ C
		STD	0000	1677	3536	2586	0021454	0000	15133								
231		OBS	0000	1677	35361	2586			15133								
		STD	0010	1677	3537	2587	0021450	0021	15135								
		OBS	0010	1677	35366	2587			15135								
		STD	0020	1550	3538	2617	0018624	0041	15098								
006		OBS	0020	1550	35376	2617			15098								
		STD	0030	1520	3580	2656	0014935	0058	15095								
		OBS	0030	1520	35798	2656			15095								
		STD	0050	1453	3574	2666	0014047	0087	15076								
		OBS	0050	1453	35736	2666			15076								
		STD	0075	1456	3581	2671	0013672	0122	15082								
		OBS	0075	1456	35806	2671			15082								
		STD	0100	1478	3597	2678	0013031	0155	15095								
		OBS	0100	1478	35967	2678			15095								
		STD	0125	1419	3581	2679	0013059	0188	15078								
		OBS	0125	1419	35806	2679			15078								
		STD	0150	1427	3587	2682	0012866	0220	15086								
		OBS	0150	1427	35865	2682			15086								
		STD	0200	1364	3579	2689	0012306	0283	15072								
		OBS	0200	1364	35786	2689			15072								
		STD	0250	1333	3575	2692	0012119	0344	15070								
		OBS	0250	1333	35746	2692			15070								
		STD	0300	1282	3563	2693	0012136	0405	15060								
		OBS	0300	1282	35625	2693			15060								
		STD	0400	1181	3548	2701	0011563	0523	15040								
		OBS	0400	1181	35475	2701			15040								
		STD	0500	0933	3517	2722	0009659	0630	14964								
		OBS	0500	0933	35169	2722			14964								
		STD	0600	0695	3491	2738	0008066	0718	14886								
		OBS	0600	0695	34910	2738			14886								
		STD	0700	0643	3502	2753	0006689	0792	14883								
		OBS	0700	0643	35017	2753			14883								
		STD	0800	0524	3499	2766	0005424	0852	14852								
		OBS	0800	0524	34988	2766			14852								
		STD	0900	0487	3498	2769	0005150	0905	14853								
		OBS	0900	0487	34976	2769			14853								
		STD	1000	0471	3501	2773	0004834	0955	14864								
		OBS	1000	0471	35006	2773			14864								
		STD	1100	0445	3500	2776	0004678	1003	14869								
		OBS	1100	0445	34996	2776			14869								
		STD	1200	0432	3500	2777	0004611	1049	14881								
		OBS	1200	0432	34996	2777			14881								
		STD	1300	0419	3500	2778	0004547	1095	14892								
		OBS	1300	0419	34995	2778			14892								
		OBS	1341	0415	34991	2778			14897								

REFERENCE CTRY CODE	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
					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	ND. OBS. DEPTHS			SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB														
		DT	SD	22	S20	207	17	16	7	24													

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 $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	SID ₄ -Si $\mu g - ml/l$	pH	S CO
		STD	0000	1896	3650	2620	0018279	0000	15210								
	034	OBS	0000	1896	36504	2620			15210								
		STD	0010	1896	3650	2620	0018315	0018	15212								
		OBS	0010	1896	36504	2620			15212								
	003	STD	0020	1896	3651	2620	0018344	0037	15214								
		OBS	0020	1896	36505	2620			15214								
		STD	0030	1872	3646	2622	0018151	0055	15208								
		OBS	0030	1872	36456	2622			15208								
		STD	0050	1773	3647	2648	0015767	0089	15183								
		OBS	0050	1773	36469	2648			15183								
		STD	0075	1743	3647	2655	0015153	0127	15178								
		OBS	0075	1743	36469	2655			15178								
		STD	0100	1728	3646	2658	0014978	0165	15178								
		OBS	0100	1728	36457	2658			15178								
		STD	0125	1717	3645	2660	0014874	0202	15178								
		OBS	0125	1717	36448	2660			15178								
		STD	0150	1717	3645	2660	0014959	0240	15183								
		OBS	0150	1717	36448	2660			15183								
		STD	0200	1713	3645	2661	0015035	0315	15190								
		OBS	0200	1713	36448	2661			15190								
		STD	0250	1707	3643	2661	0015187	0390	15196								
		OBS	0250	1707	36431	2661			15196								
		STD	0300	1703	3643	2662	0015261	0466	15203								
		OBS	0300	1703	36431	2662			15203								
		STD	0400	1673	3635	2663	0015491	0620	15209								
		OBS	0400	1673	36349	2663			15209								
		STD	0500	1558	3611	2671	0014968	0772	15188								
		OBS	0500	1558	36106	2671			15188								
		STD	0600	1340	3574	2690	0013275	0914	15130								
		OBS	0600	1340	35739	2690			15130								
		STD	0700	1140	3543	2705	0011854	1039	15074								
		OBS	0700	1140	35430	2705			15074								
		STD	0800	0876	3516	2730	0009381	1145	14992								
		OBS	0800	0876	35159	2730			14992								
		STD	0900	0743	3510	2746	0007858	1232	14957								
		OBS	0900	0743	35101	2746			14957								
		STD	1000	0642	3510	2759	0006537	1304	14934								
		OBS	1000	0642	35095	2759			14934								
		STD	1100	0509	3500	2769	0005470	1364	14896								
		OBS	1100	0509	35003	2769			14896								
		STD	1200	0482	3500	2772	0005219	1417	14901								
		OBS	1200	0482	35003	2772			14901								
		STD	1300	0456	3500	2775	0004969	1468	14907								
		OBS	1300	0456	35004	2775			14907								
		STD	1400	0438	3500	2777	0004873	1517	14917								
		OBS	1400	0438	34998	2777			14917								
		OBS	1490	0420	34996	2778			14924								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY MOBILE	MARSCON 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.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE
318081		CO	4018 N	04907 W		149	09	05	27 084	1969	IIP	10536	4096	15	20	2	3		X2	016		0073
						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	20	S15		207	19				18	7	24				
MESSENGR TIME OF HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T		SPECIFIC VOLUME ANOMALY-15°		Σ Δ σ QYN. 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			
084	STD		0000	1811	3648	2640		0016394		0000	15186											
	OBS		0000	1811	36482	2640					15186											
	STD		0010	1809	3648	2640		0016382		0016	15187											
004	OBS		0010	1809	36482	2640					15187											
	STD		0020	1795	3647	2643		0016188		0033	15184											
	OBS		0020	1795	36468	2643					15184											
	STD		0030	1782	3646	2645		0015960		0049	15182											
	OBS		0030	1782	36462	2645					15182											
	STD		0050	1762	3645	2649		0015677		0080	15179											
	OBS		0050	1762	36446	2649					15179											
	STD		0075	1753	3647	2653		0015401		0119	15181											
	OBS		0075	1753	36467	2653					15181											
	STD		0100	1739	3645	2655		0015262		0158	15181											
	OBS		0100	1739	36453	2655					15181											
	STD		0125	1722	3644	2658		0015077		0195	15180											
	OBS		0125	1722	36436	2658					15180											
	STD		0150	1710	3641	2659		0015102		0233	15180											
	OBS		0150	1710	36406	2659					15180											
	STD		0200	1683	3638	2663		0014845		0308	15180											
	OBS		0200	1683	36379	2663					15180											
	STD		0250	1587	3614	2667		0014620		0382	15156											
	OBS		0250	1587	36135	2667					15156											
	STD		0300	1477	3590	2674		0014071		0453	15127											
	OBS		0300	1477	35904	2674					15127											
	STD		0400	1336	3574	2691		0012668		0587	15095											
	OBS		0400	1336	35736	2691					15095											
	STD		0500	1162	3543	2701		0011791		0709	15049											
	OBS		0500	1162	35429	2701					15049											
STD		0600	0927	3504	2713		0010700		0822	14976												
OBS		0600	0927	35041	2713					14976												
STD		0700	0782	3506	2737		0008401		0917	14938												
OBS		0700	0782	35063	2737					14938												
STD		0800	0607	3498	2755		0006630		0993	14885												
OBS		0800	0607	34976	2755					14885												
STD		0900	0529	3500	2766		0005552		1053	14871												
OBS		0900	0529	34996	2766					14871												
STD		1000	0502	3502	2771		0005165		1107	14876												
OBS		1000	0502	35016	2771					14876												
STD		1100	0465	3501	2774		0004871		1157	14878												
OBS		1100	0465	35005	2774					14878												
STD		1200	0456	3502	2776		0004777		1205	14891												
OBS		1200	0456	35016	2776					14891												
STD		1300	0436	3502	2778		0004616		1252	14899												
OBS		1300	0436	35016	2778					14899												
STD		1400	0419	3501	2779		0004569		1298	14909												
OBS		1400	0419	35005	2779					14909												
STD		1500	0412	3500	2780		0004585		1344	14923												
OBS		1500	0412	35003	2780					14923												

REFERENCE CITY CODE	SHIP ID, NO.	SHIP CODE	LATITUDE 1°/10	LONGITUDE 1°/10	DEPT MOON	MARDEN 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./10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE		AMT			
318081		CO	4035 N	04831 W		149	08	05	27	114	1969	IIP	10537		3566	15	20	3	2		X6	0	6		0074		
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS													
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	VIS CODE	NO. OBS. DEPTHS																
		DT	SD	20	S15	207	19	18	6	27																	
MESSAGE TIME HR 1/10	CAST 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 ₃ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	S C										
114		STD	0000	1436	3438	2565	0023488	0000	15046																		
		OBS	0000	1436	34378	2565			15046																		
005		STD	0010	1404	3433	2568	0023254	0023	15036																		
		OBS	0010	1404	34326	2568			15036																		
		STD	0020	1355	3530	2653	0015204	0043	15034																		
		OBS	0020	1355	35296	2653			15034																		
		OBS	0023	1392	35401	2653			15048																		
		STD	0030	1340	3533	2658	0014718	0058	15031																		
		OBS	0030	1340	35326	2658			15031																		
		STD	0050	1241	3535	2680	0012673	0085	15001																		
		OBS	0050	1241	35354	2680			15001																		
		STD	0075	1240	3545	2688	0012045	0116	15006																		
		OBS	0075	1240	35446	2688			15006																		
		STD	0100	1263	3555	2691	0011797	0146	15019																		
		OBS	0100	1263	35548	2691			15019																		
		STD	0125	1269	3559	2693	0011693	0175	15026																		
		OBS	0125	1269	35587	2693			15026																		
		STD	0150	1255	3557	2694	0011647	0204	15025																		
		OBS	0150	1255	35566	2694			15025																		
		STD	0200	1045	3511	2698	0011299	0262	14954																		
		OBS	0200	1045	35114	2698			14954																		
		OBS	0225	1090	35312	2706			14977																		
		STD	0250	1025	3524	2711	0010181	0315	14957																		
		OBS	0250	1025	35235	2711			14957																		
		STD	0300	0810	3498	2726	0008756	0363	14882																		
		OBS	0300	0810	34976	2726			14882																		
		STD	0400	0655	3499	2749	0006638	0440	14838																		
		OBS	0400	0655	34986	2749			14838																		
		OBS	0420	0680	35042	2750			14852																		
		STD	0500	0600	3499	2756	0006046	0503	14833																		
		OBS	0500	0600	34986	2756			14833																		
		STD	0600	0511	3499	2767	0005032	0558	14813																		
		OBS	0600	0511	34986	2767			14813																		
		STD	0700	0481	3502	2774	0004516	0606	14818																		
		OBS	0700	0481	35021	2774			14818																		
		STD	0800	0462	3502	2775	0004428	0651	14827																		
		OBS	0800	0462	35016	2775			14827																		
		STD	0900	0446	3501	2776	0004410	0695	14837																		
		OBS	0900	0446	35006	2776			14837																		
		STD	1000	0425	3500	2778	0004324	0739	14844																		
		OBS	1000	0425	34996	2778			14844																		
		STD	1100	0409	3500	2779	0004222	0781	14854																		
		OBS	1100	0409	34996	2779			14854																		
		STD	1200	0402	3498	2779	0004338	0824	14868																		
		OBS	1200	0402	34981	2779			14868																		
		STD	1300	0388	3497	2780	0004325	0868	14879																		
		OBS	1300	0388	34971	2780			14879																		
		STD	1400	0385	3498	2780	0004339	0911	14894																		
		OBS	1400	0385	34976	2780			14894																		
		STD	1500	0377	3498	2781	0004329	0954	14908																		
		OBS	1500	0377	34975	2781			14908																		

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLDUD CODES		HDDC STATION NUMBER		
CTRY CODE	IO. NO.					10"	1"	MD	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318081	CO		40525N	04745 W	149	07	05	27	153	1969	11P	10538	3365	15	20	3	3		X6	0	6		0075		
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	MO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB														
						DT	SO	20	S13	203	17	16	4	28											

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	S Δ D DYH. 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 CC
153		STD	0000	1094	3302	2526	0027166	0000	14912								
		OBS	0000	1094	33015	2526			14912								
		STD	0010	0722	3308	2590	0021125	0024	14776								
		STD	0020	0473	3322	2632	0017159	0043	14679								
004		OBS	0025	0395	33316	2648			14648								
		STD	0030	0410	3342	2654	0015028	0059	14656								
		STD	0050	0470	3406	2698	0010880	0085	14693								
		OBS	0050	0470	34056	2698			14693								
		OBS	0060	0715	34516	2704			14800								
		STD	0075	0523	3430	2711	0009699	0111	14723								
		OBS	0075	0523	34295	2711			14723								
		STD	0100	0595	3443	2713	0009592	0135	14758								
		OBS	0100	0595	34427	2713			14758								
		STD	0125	0755	3475	2716	0009339	0159	14829								
		OBS	0125	0755	34748	2716			14829								
		OBS	0140	0804	34845	2717			14852								
		STD	0150	0660	3463	2720	0008978	0182	14794								
		OBS	0150	0660	34629	2720			14794								
		STD	0200	0700	3482	2729	0008199	0225	14821								
		OBS	0200	0700	34816	2729			14821								
		OBS	0238	0535	34654	2738			14759								
		STD	0250	0562	3474	2741	0007067	0263	14773								
		OBS	0250	0562	34738	2741			14773								
		OBS	0271	0591	34795	2742			14789								
		OBS	0285	0684	35004	2746			14831								
		STD	0300	0650	3496	2748	0006597	0297	14820								
		OBS	0300	0650	34962	2748			14820								
		OBS	0312	0628	34936	2749			14812								
		STD	0400	0556	3498	2762	0005359	0357	14799								
		OBS	0400	0556	34984	2762			14799								
		STD	0500	0529	3502	2767	0004919	0408	14805								
		OBS	0500	0529	35015	2767			14805								
		STD	0600	0483	3500	2771	0004619	0456	14802								
		OBS	0600	0483	34995	2771			14802								
		STD	0700	0462	3500	2774	0004475	0501	14810								
		OBS	0700	0462	34995	2774			14810								
		STD	0800	0443	3499	2775	0004409	0546	14819								
		OBS	0800	0443	34987	2775			14819								
		STD	0900	0427	3498	2776	0004397	0590	14828								
		OBS	0900	0427	34976	2776			14828								
		STD	1000	0419	3499	2778	0004331	0633	14842								
		OBS	1000	0419	34985	2778			14842								
		STD	1100	0406	3498	2778	0004325	0677	14853								
		OBS	1100	0406	34977	2778			14853								
		STD	1200	0401	3498	2779	0004355	0720	14868								
		OBS	1200	0401	34977	2779			14868								
		STD	1300	0390	3498	2780	0004314	0763	14880								
		OBS	1300	0390	34976	2780			14880								
		STD	1400	0381	3498	2781	0004287	0806	14893								
		OBS	1400	0381	34976	2781			14893								
		STD	1500	0376	3498	2781	0004309	0849	14907								
		OBS	1500	0376	34976	2781			14907								

REFERENCE CTRY CODE	SHIP ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	CHART INDIC	MARSDEN 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
						10"	1"	MO	DAY	HR, 1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318081		CO	4352 N	04510 W	149	35	05	28	065	1969	11P	10539	4572	15	21	3	3			X6	0	6		0076
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB												
						DT	SD	21	S22	112	16	15	6	24										

MESSENGER TIME HR 1/10	CAST 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 $\mu\text{g} - \text{dl/l}$	TOTAL-P $\mu\text{g} - \text{dl/l}$	NO ₃ -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	1317	3500	2638	0016558	0000	15014								
065		OBS	0000	1317	35003	2638			15014								
		STD	0010	1317	3500	2638	0016585	0017	15016								
		OBS	0010	1317	35003	2638			15016								
		STD	0020	1456	3566	2660	0014560	0032	15071								
004		OBS	0020	1456	35662	2660			15071								
		STD	0030	1454	3570	2663	0014256	0047	15073								
		OBS	0030	1454	35702	2663			15073								
		STD	0050	1453	3574	2666	0014003	0075	15076								
		OBS	0050	1453	35742	2666			15076								
		STD	0075	1449	3580	2672	0013557	0109	15080								
		OBS	0075	1449	35802	2672			15080								
		STD	0100	1446	3594	2683	0012547	0142	15085								
		OBS	0100	1446	35942	2683			15085								
		STD	0125	1421	3591	2687	0012311	0173	15080								
		OBS	0125	1421	35914	2687			15080								
		STD	0150	1373	3585	2692	0011862	0203	15068								
		OBS	0150	1373	35852	2692			15068								
		STD	0200	1369	3586	2693	0011881	0263	15075								
		OBS	0200	1369	35858	2693			15075								
		STD	0250	1361	3585	2694	0011921	0322	15081								
		OBS	0250	1361	35850	2694			15081								
		STD	0300	1341	3583	2697	0011791	0381	15082								
		OBS	0300	1341	35832	2697			15082								
		STD	0400	1164	3570	2722	0009572	0488	15037								
		OBS	0400	1164	35704	2722			15037								
		STD	0500	0887	3535	2743	0007564	0574	14949								
		OBS	0500	0887	35352	2743			14949								
		STD	0600	0706	3516	2756	0006367	0643	14894								
		OBS	0600	0706	35162	2756			14894								
		STD	0700	0561	3501	2763	0005607	0703	14851								
		OBS	0700	0561	35012	2763			14851								
		STD	0800	0509	3499	2768	0005207	0757	14846								
		OBS	0800	0509	34991	2768			14846								
		STD	0900	0480	3499	2771	0004979	0808	14850								
		OBS	0900	0480	34987	2771			14850								
		STD	1000	0455	3499	2774	0004776	0857	14857								
		OBS	1000	0455	34986	2774			14857								
		STD	1100	0431	3498	2776	0004624	0904	14863								
		OBS	1100	0431	34979	2776			14863								
		STD	1200	0427	3498	2776	0004671	0951	14878								
		OBS	1200	0427	34979	2776			14878								
		STD	1300	0409	3497	2777	0004609	0997	14888								
		OBS	1300	0409	34969	2777			14888								
		STD	1400	0394	3497	2779	0004506	1043	14898								
		OBS	1400	0394	34969	2779			14898								
		STD	1500	0391	3497	2779	0004556	1088	14914								
		OBS	1500	0391	34969	2779			14914								

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

318081	CO	44005N	045505W	149	45	05	28	101	1969	11P	10540	3768	15	26	4	3		X6	016		0077
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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	28	S20	142	11	10	7	25	
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MESSENGER 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 $\mu g - \text{at/l}$	TOTAL-P $\mu g - \text{at/l}$	HO ₂ -H $\mu g - \text{at/l}$	HO ₃ -H $\mu g - \text{at/l}$	SiO ₄ -Si $\mu g - \text{at/l}$	pH
		STD	0000	1286	3509	2651	0015312	0000	15005							
101		OBS	0000	1286	35092	2651			15005							
		STD	0010	1286	3509	2651	0015338	0015	15007							
		OBS	0010	1286	35092	2651			15007							
		STD	0020	1351	3542	2663	0014202	0030	15034							
003		OBS	0020	1351	35422	2663			15034							
		STD	0030	1431	3579	2675	0013163	0044	15066							
		OBS	0030	1431	35787	2675			15066							
		STD	0050	1463	3592	2678	0012946	0070	15082							
		OBS	0050	1463	35915	2678			15082							
		STD	0075	1504	3605	2679	0012933	0102	15100							
		OBS	0075	1504	36045	2679			15100							
		STD	0100	1506	3605	2679	0013001	0135	15105							
		OBS	0100	1506	36052	2679			15105							
		STD	0125	1461	3593	2679	0012992	0167	15093							
		OBS	0125	1461	35934	2679			15093							
		STD	0150	1441	3592	2683	0012775	0199	15091							
		OBS	0150	1441	35917	2683			15091							
		STD	0200	1350	3572	2687	0012479	0262	15067							
		OBS	0200	1350	35724	2687			15067							
		STD	0250	1349	3580	2693	0012030	0324	15076							
		OBS	0250	1349	35802	2693			15076							
		STD	0300	1334	3577	2694	0012081	0384	15079							
		OBS	0300	1334	35773	2694			15079							
		STD	0400	1107	3537	2707	0010957	0499	15013							
		OBS	0400	1107	35372	2707			15013							
		STD	0500	0816	3508	2733	0008474	0596	14919							
		OBS	0500	0816	35076	2733			14919							
		OBS	0570	0690	34907	2738			14879							
		STD	0600	0666	3493	2743	0007528	0676	14875							
		OBS	0600	0666	34927	2743			14875							
		STD	0700	0525	3492	2760	0005826	0743	14835							
		OBS	0700	0525	34919	2760			14835							
		STD	0800	0488	3494	2766	0005309	0799	14836							
		OBS	0800	0488	34941	2766			14836							
		STD	0900	0454	3495	2771	0004938	0850	14839							
		OBS	0900	0454	34948	2771			14839							
		STD	1000	0416	3493	2773	0004722	0898	14840							
		OBS	1000	0416	34927	2773			14840							
		STD	1100	0403	3493	2775	0004656	0945	14851							
		OBS	1100	0403	34927	2775			14851							
		STD	1200	0386	3492	2776	0004557	0991	14861							
		OBS	1200	0386	34924	2776			14861							
		STD	1300	0376	3492	2777	0004527	1037	14873							
		OBS	1300	0376	34923	2777			14873							
		STD	1400	0374	3492	2777	0004587	1082	14889							
		OBS	1400	0374	34923	2777			14889							
		STD	1500	0370	3492	2778	0004619	1128	14904							
		OBS	1500	0370	34923	2778			14904							

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS 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		
CITY CODE	ID. NO.					10°	1°	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE	AMT
318081		CO	44083N	046315W	149	46	05	28	133	1969	IIP	10541	3749	15	29	4	2		X1	0	6	0078	
						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											
						DT	SO	29	S30	166	12	09	7	25									
MESSAGE TIME HR 1/10	CAS 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 - 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 CTD					
		STD	0000	1491	3602	2679	0012618		0000	15084													
133		OBS	0000	1491	36019	2679				15084													
		STD	0010	1491	3602	2679	0012649		0013	15085													
		OBS	0010	1491	36019	2679				15085													
		STD	0020	1491	3602	2679	0012679		0025	15087													
006		OBS	0020	1491	36019	2679				15087													
		STD	0030	1492	3602	2679	0012724		0038	15089													
		OBS	0030	1492	36020	2679				15089													
		STD	0050	1487	3602	2680	0012673		0063	15091													
		OBS	0050	1487	36021	2680				15091													
		STD	0075	1484	3602	2681	0012687		0095	15094													
		OBS	0075	1484	36021	2681				15094													
		STD	0100	1474	3602	2683	0012575		0127	15095													
		OBS	0100	1474	36018	2683				15095													
		STD	0125	1464	3601	2684	0012522		0158	15095													
		OBS	0125	1464	36007	2684				15095													
		STD	0150	1449	3598	2686	0012467		0189	15094													
		OBS	0150	1449	35982	2686				15094													
		STD	0200	1409	3588	2687	0012533		0252	15088													
		OBS	0200	1409	35880	2687				15088													
		OBS	0220	1389	35885	2691				15085													
		STD	0250	1364	3582	2692	0012185		0314	15081													
		OBS	0250	1364	35822	2692				15081													
		STD	0300	1356	3584	2695	0012019		0374	15087													
		OBS	0300	1356	35842	2695				15087													
		STD	0400	1176	3548	2703	0011411		0491	15038													
		OBS	0400	1176	35483	2703				15038													
		STD	0500	0953	3523	2723	0009566		0596	14972													
		OBS	0500	0953	35227	2723				14972													
		STD	0600	0778	3507	2738	0008144		0685	14920													
		OBS	0600	0778	35066	2738				14920													
		STD	0700	0636	3499	2752	0006819		0759	14880													
		OBS	0700	0636	34986	2752				14880													
		STD	0800	0480	3491	2765	0005422		0821	14833													
		OBS	0800	0480	34912	2765				14833													
		STD	0900	0470	3495	2769	0005162		0874	14846													
		OBS	0900	0470	34945	2769				14846													
		STD	1000	0423	3492	2772	0004831		0924	14843													
		OBS	1000	0423	34924	2772				14843													
		STD	1100	0426	3495	2774	0004745		0971	14861													
		OBS	1100	0426	34954	2774				14861													
		STD	1200	0421	3496	2775	0004771		1019	14876													
		OBS	1200	0421	34955	2775				14876													
		STD	1300	0408	3496	2776	0004698		1066	14887													
		OBS	1300	0408	34955	2776				14887													
		STD	1400	0396	3495	2777	0004664		1113	14899													
		OBS	1400	0396	34951	2777				14899													
		STD	1500	0388	3495	2778	0004685		1160	14912													
		OBS	1500	0388	34946	2778				14912													

REFERENCE	SNIP 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		NODC STATION NUMBER
					MO	DAY	HR	1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		TYPE	AMT	

318081 CO 4415 N 04713 W 149 47 05 28 167 1969 IIP 10542 3950 15 27 3 3 X1 0 6 0079

WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. DSS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

DT SD 26 518 179 11 08 7 24

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	D ₂ ml/l	PD ₄ -P $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₂ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	Si D ₄ -Si $\mu g - ml/l$	PH	3 C C
167		STD	0000	1435	3584	2678	0012738	0000	15064								
		OBS	0000	1435	35844	2678			15064								
005		STD	0010	1434	3584	2678	0012748	0013	15065								
		OBS	0010	1434	35844	2678			15065								
		STD	0020	1434	3585	2679	0012763	0025	15067								
		OBS	0020	1434	35846	2679			15067								
		STD	0030	1438	3589	2681	0012560	0038	15070								
		OBS	0030	1438	35889	2681			15070								
		STD	0050	1447	3593	2682	0012506	0063	15077								
		OBS	0050	1447	35930	2682			15077								
		STD	0075	1451	3595	2683	0012503	0094	15082								
		OBS	0075	1451	35952	2683			15082								
		STD	0100	1455	3598	2684	0012456	0126	15088								
		OBS	0100	1455	35980	2684			15088								
		STD	0125	1458	3599	2684	0012543	0157	15093								
		OBS	0125	1458	35987	2684			15093								
		STD	0150	1458	3599	2684	0012618	0188	15097								
		OBS	0150	1458	35987	2684			15097								
		STD	0200	1347	3575	2689	0012251	0251	15066								
		OBS	0200	1347	35747	2689			15066								
		STD	0250	1283	3563	2693	0011992	0311	15052								
		OBS	0250	1283	35629	2693			15052								
		STD	0300	1246	3558	2697	0011740	0370	15047								
		OBS	0300	1246	35584	2697			15047								
		STD	0400	0947	3517	2720	0009647	0477	14952								
		OBS	0400	0947	35174	2720			14952								
		STD	0500	0778	3506	2738	0007999	0566	14904								
		OBS	0500	0778	35062	2738			14904								
		STD	0600	0650	3500	2751	0006735	0639	14870								
		OBS	0600	0650	35004	2751			14870								
		STD	0700	0561	3501	2763	0005629	0701	14851								
		OBS	0700	0561	35009	2763			14851								
		STD	0800	0508	3499	2768	0005180	0755	14845								
		OBS	0800	0508	34993	2768			14845								
		STD	0900	0474	3499	2772	0004910	0806	14848								
		OBS	0900	0474	34986	2772			14848								
		STD	1000	0446	3497	2774	0004757	0854	14853								
		OBS	1000	0446	34973	2774			14853								
		STD	1100	0437	3497	2775	0004745	0902	14866								
		OBS	1100	0437	34973	2775			14866								
		STD	1200	0415	3496	2776	0004628	0948	14873								
		OBS	1200	0415	34964	2776			14873								
		STD	1300	0399	3495	2777	0004590	0994	14883								
		OBS	1300	0399	34954	2777			14883								
		STD	1400	0388	3494	2777	0004627	1041	14895								
		OBS	1400	0388	34942	2777			14895								
		STD	1500	0384	3494	2778	0004662	1087	14910								
		OBS	1500	0384	34942	2778			14910								

REFERENCE	SHIP	LATITUDE	LONGITUDE	DATE	MARSDEN	STATION TIME	YEAR	ORIGINATOR'S	DEPTH	MAX. DEPTH	WAVE	WEA-	CLOUD		NODC
CTRY	CODE	10	10	10	10	10	10	CRUISE	TO	OF	OBSERVATIONS	TH	CODES		STATION
NO.								NO.	BOTTOM	SAMPLES	DIR	HT	PER	SEA	NUMBER
10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
318081	CO	4423 N	04734 W	1969	11P	10543	1969	11P	10543	3768	15	25	4	3	0080

WATER	WIND	BARO-	AIR TEMP. °C	VIS.	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR	TRANS.	SPEED	DRY	WET		
CODE	UNIT	OF FORCE	BULB	BULB		
DT	SD	S22	169	09	07	7

MESSAGE	CAS	CARD	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME	± Δ D	SOUND	D ₂ m/l	PO ₄ -P	TOTAL-P	NO ₃ -N	NO ₃ -N	Si O ₄ -Si	pH	S
TIME	NO.	TYPE					ANOMALY-310°	YN. M.	VELOCITY		μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l	μg - ml/l		C
HR 1/10								X 10 ³									
		STD	0000	1441	3589	2680	0012547	0000	15066								
191		OBS	0000	1441	35887	2680			15066								
		STD	0010	1442	3589	2680	0012597	0013	15068								
		OBS	0010	1442	35887	2680			15068								
		STD	0020	1442	3589	2680	0012627	0025	15070								
005		OBS	0020	1442	35887	2680			15070								
		STD	0030	1441	3589	2680	0012636	0038	15071								
		OBS	0030	1441	35887	2680			15071								
		STD	0050	1441	3589	2680	0012696	0063	15074								
		OBS	0050	1441	35887	2680			15074								
		STD	0075	1396	3578	2681	0012657	0095	15062								
		OBS	0075	1396	35777	2681			15062								
		STD	0100	1421	3590	2686	0012318	0126	15076								
		OBS	0100	1421	35903	2686			15076								
		STD	0125	1401	3586	2687	0012283	0157	15073								
		OBS	0125	1401	35862	2687			15073								
		STD	0150	1376	3582	2688	0012193	0187	15069								
		OBS	0150	1376	35815	2688			15069								
		STD	0200	1287	3564	2693	0011832	0247	15045								
		OBS	0200	1287	35643	2693			15045								
		STD	0250	1155	3543	2703	0011024	0305	15006								
		OBS	0250	1155	35432	2703			15006								
		STD	0300	1056	3531	2712	0010254	0358	14977								
		OBS	0300	1056	35313	2712			14977								
		STD	0400	0814	3507	2733	0008283	0450	14901								
		OBS	0400	0814	35073	2733			14901								
		STD	0500	0685	3507	2752	0006563	0525	14868								
		OBS	0500	0685	35073	2752			14868								
		STD	0600	0577	3504	2763	0005502	0585	14841								
		OBS	0600	0577	35037	2763			14841								
		STD	0700	0512	3498	2767	0005201	0639	14830								
		OBS	0700	0512	34981	2767			14830								
		STD	0800	0476	3498	2771	0004862	0689	14832								
		OBS	0800	0476	34981	2771			14832								
		STD	0900	0448	3497	2774	0004671	0737	14837								
		OBS	0900	0448	34974	2774			14837								
		STD	1000	0434	3497	2775	0004606	0783	14848								
		OBS	1000	0434	34973	2775			14848								
		STD	1100	0421	3497	2776	0004542	0829	14859								
		OBS	1100	0421	34973	2776			14859								
		STD	1200	0410	3497	2778	0004498	0874	14871								
		OBS	1200	0410	34973	2778			14871								
		STD	1300	0401	3497	2778	0004521	0919	14884								
		OBS	1300	0401	34967	2778			14884								
		STD	1400	0390	3497	2779	0004476	0964	14896								
		OBS	1400	0390	34966	2779			14896								
		STD	1500	0379	3495	2779	0004516	1009	14908								
		OBS	1500	0379	34953	2779			14908								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO YR	MARS 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
CTRY CODE	ID. NO.					10"	1"	MO	OAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR	HGT	PER		SEA	TYPE	
318081		CO	4424 N	04755 W	149	47	05	28	215	1969	IIP	10544	3594	13	24	4	3		X1	0	6	0081
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. IM	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE										
						DT	SD	22	S26	156	08	06	7	24								

MESSNGR TIME HR 1/10	CASI NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma$ OYN. M. X 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 ₂ -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	SC
		STD	0000	0661	3337	2621	0018173	0000	14754								
215		OBS	0000	0661	33369	2621			14754								
		STD	0010	0671	3339	2621	0018141	0018	14760								
		OBS	0010	0671	33392	2621			14760								
		STD	0020	0673	3365	2642	0016224	0035	14765								
004		OBS	0020	0673	33654	2642			14765								
		STD	0030	0571	3372	2660	0014486	0051	14727								
		OBS	0030	0571	33722	2660			14727								
		STD	0050	0846	3454	2686	0012044	0077	14849								
		OBS	0050	0846	34542	2686			14849								
		STD	0075	1111	3512	2687	0012089	0107	14958								
		OBS	0075	1111	35122	2687			14958								
		STD	0100	0821	3458	2693	0011472	0137	14848								
		OBS	0100	0821	34582	2693			14848								
		STD	0125	0982	3508	2706	0010353	0164	14919								
		OBS	0125	0982	35077	2706			14919								
		STD	0150	1034	3526	2711	0009953	0190	14944								
		OBS	0150	1034	35256	2711			14944								
		STD	0200	0652	3471	2728	0008346	0235	14801								
		OBS	0229	0540	34581	2732			14759								
		STD	0250	0509	3457	2735	0007657	0275	14749								
		OBS	0250	0509	34574	2735			14749								
		STD	0300	0541	3472	2743	0007009	0312	14773								
		OBS	0300	0541	34720	2743			14773								
		OBS	0314	0482	34757	2752			14751								
		OBS	0355	0618	34991	2754			14816								
		STD	0400	0578	3498	2759	0005660	0375	14808								
		OBS	0400	0578	34981	2759			14808								
		STD	0500	0509	3496	2766	0005050	0429	14796								
		OBS	0500	0509	34964	2766			14796								
		STD	0600	0496	3499	2769	0004846	0478	14807								
		OBS	0600	0496	34986	2769			14807								
		STD	0700	0460	3498	2773	0004554	0525	14809								
		OBS	0700	0460	34981	2773			14809								
		STD	0800	0436	3497	2775	0004443	0570	14815								
		OBS	0800	0436	34971	2775			14815								
		STD	0900	0418	3495	2775	0004457	0615	14824								
		OBS	0900	0418	34953	2775			14824								
		STD	1000	0396	3494	2777	0004367	0659	14832								
		OBS	1000	0396	34942	2777			14832								
		STD	1100	0389	3493	2777	0004431	0703	14845								
		OBS	1100	0389	34934	2777			14845								
		STD	1200	0389	3494	2777	0004491	0748	14862								
		OBS	1200	0389	34938	2777			14862								
		OBS	1288	0384	34941	2778			14875								

REFERENCE		SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	OFFSET INCHES	MARDEN 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			
CRUISE CODE	ID. NO.					10"	1'	MO	DAY		HR. 1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT		
318081	CO		4427 N	04806 W	149	48	05	28	233	1969	IIP	10545		4806	15	22	3	2		X1	0	6	0082		
						WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
						COLOR	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		VIS. CODE											
						DT	SD	22	S25	156		07 05		7	27										

MESSING TIME HR 1/10	CASST 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	TOTAL-P μg - dl/l	NO ₂ -N μg - dl/l	NO ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	COND
		STD	0000	0701	3342	2619	0018338	0000	14770								
233		OBS	0000	0701	33415	2619			14770								
		STD	0010	0703	3342	2619	0018378	0018	14773								
		OBS	0010	0703	33415	2619			14773								
		STD	0020	0705	3343	2620	0018307	0037	14775								
006		OBS	0020	0705	33430	2620			14775								
		STD	0030	0746	3408	2665	0014009	0053	14801								
		OBS	0030	0746	34082	2665			14801								
		STD	0050	1096	3520	2696	0011179	0078	14949								
		OBS	0050	1096	35202	2696			14949								
		STD	0075	0961	3495	2700	0010829	0106	14901								
		OBS	0075	0961	34952	2700			14901								
		STD	0100	0803	3475	2710	0009935	0132	14844								
		OBS	0100	0803	34754	2710			14844								
		STD	0125	0683	3460	2715	0009443	0156	14799								
		OBS	0125	0683	34602	2715			14799								
		STD	0150	0383	3428	2725	0008383	0178	14676								
		OBS	0150	0383	34282	2725			14676								
		STD	0200	0641	3489	2743	0006849	0216	14799								
		OBS	0200	0641	34892	2743			14799								
		STD	0250	0551	3480	2748	0006456	0249	14769								
		OBS	0250	0551	34802	2748			14769								
		STD	0270	0529	34842	2754			14764								
		OBS	0300	0557	3491	2756	0005790	0280	14782								
		STD	0300	0557	34910	2756			14782								
		OBS	0336	0507	34862	2758			14766								
		STD	0400	0504	3493	2764	0005108	0334	14777								
		OBS	0400	0504	34932	2764			14777								
		STD	0450	0464	34910	2767			14768								
		OBS	0500	0479	3497	2769	0004680	0383	14783								
		STD	0500	0479	34965	2769			14783								
		OBS	0600	0444	3495	2772	0004471	0429	14785								
		STD	0600	0444	34952	2772			14785								
		OBS	0700	0424	3494	2774	0004398	0474	14793								
		STD	0700	0424	34944	2774			14793								
		OBS	0800	0407	3493	2775	0004370	0517	14803								
		STD	0800	0407	34934	2775			14803								
		OBS	0900	0392	3493	2776	0004353	0561	14813								
		STD	0900	0392	34925	2776			14813								
		OBS	1000	0389	3493	2776	0004393	0605	14829								
		STD	1000	0389	34927	2776			14829								
		OBS	1100	0379	3493	2777	0004339	0648	14841								
		STD	1100	0379	34930	2777			14841								
		OBS	1200	0377	3493	2778	0004402	0692	14857								
		STD	1200	0377	34930	2778			14857								
		OBS	1300	0368	3492	2778	0004434	0736	14870								
		STD	1300	0368	34922	2778			14870								
		OBS	1400	0367	3493	2778	0004461	0781	14886								
		STD	1400	0367	34928	2778			14886								
		OBS	1500	0363	3493	2779	0004463	0825	14902								
		STD	1500	0363	34932	2779			14902								

REFERENCE CTRY CODE	SHIP IO. NO.	SHIP CODE	LATITUDE ° 10	LONGITUDE ° 10	DRIFT DIR DEG	MARS 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	10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
318081	CO		4429 N	04821 W		149	48	05	29	017	1969	IIP	10546	3292	15	21	4	3		X1	06		0083		
						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	21	515	149	06	04	7	24											

MESSAGE	CASE	CARD	DEPTH	T °C	S %	SIGMA-T	SPECIFIC VOLUME	Σ Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SiO ₄ -Si	pH	1
TIME	NO.	TYPE	(m)				ANOMALY-RTD	DYN. M.	VELOCITY		μg - at/l	μg - at/l	μg - at/l	μg - at/l	μg - at/l		C
HR 1/10								X 10 ³									
		STD	0000	0254	3286	2624	0017862	0000	14577								
017		OBS	0000	0254	32862	2624			14577								
		STD	0010	0254	3287	2625	0017827	0018	14579								
		OBS	0010	0254	32867	2625			14579								
		STD	0020	0101	3308	2652	0015197	0034	14515								
005		OBS	0020	0101	33077	2652			14515								
		STD	0030	0056	3324	2668	0013688	0049	14499								
		OBS	0030	0056	33242	2668			14499								
		STD	0050	0056	3354	2692	0011416	0074	14506								
		OBS	0050	0056	33540	2692			14506								
		STD	0075	0066	3385	2716	0009121	0100	14519								
		OBS	0075	0066	33849	2716			14519								
		STD	0100	0061	3398	2727	0008096	0121	14523								
		OBS	0100	0061	3440P	2761P											
		STD	0125	0143	3412	2733	0007575	0141	14566								
		OBS	0125	0143	34118	2733			14566								
		STD	0150	0177	3427	2742	0006716	0159	14587								
		OBS	0150	0177	34265	2742			14587								
		STD	0200	0422	3468	2753	0005829	0190	14706								
		OBS	0200	0422	34682	2753			14706								
		STD	0250	0371	3466	2756	0005551	0218	14693								
		OBS	0250	0371	34655	2756			14693								
		STD	0300	0384	3477	2764	0004882	0244	14708								
		OBS	0300	0384	34768	2764			14708								
		STD	0400	0419	3489	2770	0004449	0291	14741								
		OBS	0400	0419	34889	2770			14741								
		STD	0500	0420	3491	2772	0004375	0335	14758								
		OBS	0500	0420	34914	2772			14758								
		STD	0600	0408	3491	2773	0004352	0379	14770								
		OBS	0600	0408	34912	2773			14770								
		STD	0700	0395	3491	2774	0004314	0422	14781								
		OBS	0700	0395	34910	2774			14781								
		STD	0800	0393	3491	2774	0004384	0466	14797								
		OBS	0800	0393	34910	2774			14797								
		STD	0900	0384	3491	2775	0004369	0509	14810								
		OBS	0900	0384	34910	2775			14810								
		STD	1000	0376	3491	2776	0004363	0553	14823								
		OBS	1000	0376	34910	2776			14823								
		STD	1100	0372	3491	2777	0004394	0597	14838								
		OBS	1100	0372	34911	2777			14838								
		STD	1200	0372	3492	2777	0004399	0641	14855								
		OBS	1200	0372	34922	2777			14855								
		STD	1300	0367	3493	2779	0004363	0685	14870								
		OBS	1300	0367	34930	2779			14870								
		STD	1400	0362	3493	2779	0004383	0728	14884								
		OBS	1400	0362	34930	2779			14884								
		STD	1500	0360	3493	2780	0004410	0772	14900								
		OBS	1500	0360	34934	2780			14900								

REFERENCE CTRY CODE	ID. NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	WAVE NO. 1/10	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	
							MO		DAY			CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT		
							10"	1'	MO	DAY														HR. 1/10
318081		CO	44318N	04835 W		149	48	05	29	041	1969	IIP	10547	2926	15	21	3	3		X2	0	6		0084
							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											
							DT	SD	21	517		125	06				05	7	24					
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 $\mu g - ml/l$	TOTAL-P $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	NO ₃ -N $\mu g - ml/l$	SiO ₄ -Si $\mu g - ml/l$	pH	S C						
041		STD	0000	0272	3301	2634	0016905		0000	14587														
		OBS	0000	0272	33007	2634				14587														
004		STD	0010	0273	3301	2635	0016879		0017	14589														
		OBS	0010	0273	33012	2635				14589														
		STD	0020	0284	3332	2658	0014628		0033	14600														
		OBS	0020	0284	33322	2658				14600														
		STD	0030	0231	3360	2685	0012094		0046	14582														
		OBS	0030	0231	33602	2685				14582														
		STD	0050	0177	3382	2707	0010036		0068	14565														
		OBS	0050	0177	33822	2707				14565														
		STD	0075	0140	3408	2730	0007815		0090	14556														
		OBS	0075	0140	34082	2730				14556														
		STD	0100	0189	3412	2730	0007853		0110	14582														
		OBS	0100	0189	34124	2730				14582														
		STD	0125	0200	3422	2737	0007236		0129	14593														
		OBS	0125	0200	34218	2737				14593														
		STD	0150	0220	3435	2745	0006437		0146	14607														
		OBS	0150	0220	34346	2745				14607														
		STD	0200	0307	3462	2760	0005146		0175	14657														
		OBS	0200	0307	34621	2760				14657														
		STD	0250	0376	3478	2766	0004650		0199	14697														
		OBS	0250	0376	34782	2766				14697														
		STD	0300	0394	3482	2767	0004575		0223	14713														
		OBS	0300	0394	34823	2767				14713														
		STD	0400	0403	3487	2770	0004386		0267	14734														
		OBS	0400	0403	34874	2770				14734														
		STD	0500	0399	3489	2772	0004356		0311	14749														
	OBS	0500	0399	34885	2772				14749															
	STD	0600	0396	3489	2773	0004350		0355	14764															
	OBS	0600	0396	34894	2773				14764															
	STD	0700	0386	3489	2774	0004345		0398	14777															
	OBS	0700	0386	34892	2774				14777															
	STD	0800	0378	3489	2774	0004343		0441	14790															
	OBS	0800	0378	34892	2774				14790															
	STD	0900	0373	3489	2775	0004374		0485	14805															
	OBS	0900	0373	34892	2775				14805															
	STD	1000	0371	3489	2775	0004437		0529	14820															
	OBS	1000	0371	34892	2775				14820															
	STD	1100	0367	3490	2776	0004445		0574	14836															
	OBS	1100	0367	34896	2776				14836															
	STD	1200	0365	3490	2776	0004482		0618	14852															
	OBS	1200	0365	34899	2776				14852															
	STD	1300	0367	3492	2777	0004466		0663	14869															
	OBS	1300	0367	34916	2777				14869															
	STD	1400	0367	3492	2778	0004505		0708	14886															
	OBS	1400	0367	34922	2778				14886															
	STD	1500	0363	3493	2779	0004478		0753	14901															
	OBS	1500	0363	34930	2779				14901															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT NO.	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
CTRY CODE	ID. NO.						10°	1°	MO	DAY	HR.1/10	CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA			

318081	CO	44335N	04849 W	149	48	05	29	065	1969	11P	10548	2012	15	21	3	3			X6	0	6		OC 95
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
DT	SD	21	S13	119	06	05	7	24	

DT	SD	Z1	S13	119	06	05	7	24	
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MESSENGER TIME NR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Sigma \Delta$ D DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PD4-P $\mu\text{g} \cdot \text{dl/l}$	TOTAL-P $\mu\text{g} \cdot \text{dl/l}$	ND2-N $\mu\text{g} \cdot \text{dl/l}$	ND3-N $\mu\text{g} \cdot \text{dl/l}$	SiO ₂ -Si $\mu\text{g} \cdot \text{dl/l}$	pH	S CC
		STD	0000	0211	3286	2627	0017558	0000	14558								
065		OBS	0000	0211	32860	2627			14558								
		STD	0010	0205	3285	2627	0017601	0018	14557								
		OBS	0010	0205	32849	2627			14557								
		STD	0020	0096	3294	2642	0016195	0034	14511								
004		OBS	0020	0096	32942	2642			14511								
		STD	0030	-0014	3319	2667	0013774	0049	14466								
		OBS	0030	-0014	33186	2667			14466								
		STD	0050	-0029	3344	2688	0011762	0075	14466								
		OBS	0050	-0029	33440	2688			14466								
		STD	0075	0023	3350	2691	0011528	0104	14495								
		OBS	0075	0023	33502	2691			14495								
		STD	0100	0045	3360	2697	0010911	0132	14511								
		OBS	0100	0045	33598	2697			14511								
		STD	0125	0059	3368	2703	0010372	0159	14522								
		OBS	0125	0059	33679	2703			14522								
		STD	0150	0088	3387	2716	0009119	0183	14542								
		OBS	0150	0088	33867	2716			14542								
		STD	0200	0126	3405	2729	0007958	0226	14570								
		OBS	0200	0126	34054	2729			14570								
		STD	0250	0179	3425	2741	0006864	0263	14604								
		OBS	0250	0179	34252	2741			14604								
		STD	0300	0224	3443	2752	0005909	0295	14635								
		OBS	0300	0224	34430	2752			14635								
		STD	0400	0350	3472	2764	0004978	0349	14710								
		OBS	0400	0350	34720	2764			14710								
		STD	0500	0386	3481	2767	0004802	0398	14743								
		OBS	0500	0386	34806	2767			14743								
		STD	0600	0402	3486	2769	0004671	0446	14767								
		OBS	0600	0402	34860	2769			14767								
		STD	0700	0405	3488	2771	0004622	0492	14785								
		OBS	0700	0405	34884	2771			14785								
		STD	0800	0398	3489	2773	0004560	0538	14799								
		OBS	0800	0398	34894	2773			14799								
		STD	0900	0386	3490	2774	0004474	0583	14810								
		OBS	0900	0386	34899	2774			14810								
		STD	1000	0378	3490	2775	0004490	0628	14823								
		OBS	1000	0378	34896	2775			14823								
		STD	1100	0373	3490	2775	0004517	0673	14838								
		OBS	1100	0373	34896	2775			14838								
		STD	1200	0368	3490	2776	0004534	0718	14853								
		OBS	1200	0368	34897	2776			14853								
		STD	1300	0368	3491	2777	0004559	0764	14870								
		OBS	1300	0368	34905	2777			14870								
		STD	1400	0367	3491	2777	0004608	0809	14886								
		OBS	1400	0367	34908	2777			14886								
		STD	1500	0367	3491	2777	0004646	0856	14903								
		OBS	1500	0367	34914	2777			14903								

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 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
					10°	1°	MO	DAY		HR	1/10												
318081	CO	4436 N	04906 W	149	49	05	29	084	1969	11P	10549	0092	01	24	3	3		X6	0	6	0086		
				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													
				DT	SD	18	S15	115	06	05	7	06											
MESSAGE TIME HR 1/10	CAST 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH						
084	OBS	STD	0000	0251	3288	2626	0017680		0000	14576													
		OBS	0000	0251	32883	2626				14576													
000	OBS	STD	0010	0251	3288	2626	0017683		0018	14578													
		OBS	0010	0251	32883	2626				14578													
		STD	0020	0098	3297	2643	0016031		0035	14513													
		OBS	0020	0098	32965	2643				14513													
		STD	0030	0048	3306	2654	0015033		0050	14493													
		OBS	0030	0048	33060	2654				14493													
		STD	0050	0007	3318	2666	0013895		0079	14479													
		OBS	0050	0007	33182	2666				14479													
STD	0075	-0015	3324	2671	0013374		0113	14474															
	OBS	0075	-0015	33236	2671				14474														

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 S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER			
CRUISE CODE	IC. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT	
318081		CO	4440 N	04919 W	149	49	05	29	093	1969	11P	10550	0058	00	21	3	3		X2	0	6	0087		
						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												
						DT	SD	19	S12	108	08	06	7	04										
MESSENGER TIME OF HR 1/10		CARD 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH				
			STD	0000	0356	3285		2614		0018784		0000	14621											
		093	OBS	0000	0356	32852		2614					14621											
			STD	0010	0356	3285		2614		0018790		0019	14623											
			OBS	0010	0356	32852		2614					14623											
			STD	0020	0161	3291		2635		0016824		0037	14540											
		000	OBS	0020	0161	32912		2635					14540											
			STD	0030	0057																			
			OBS	0030	0057	3206P		2573P																

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 S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CITY CODE	NO.					10"	1"	MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA		TYPE	AMT	
318081		CO	47004N	048302W	149	78	05	29	195	1969	11P	10551		0108	01	18	3	3		X2	0	6	0088
						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											
						DT	SD	16	S20	058	06	06	7	07									
MESSENGER TIME OF HR 1/10		CARD 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 $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₂ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH			
			STD	0000	0288	3274		2612		0019030		0000	14590										
195			OBS	0000	0288	32743		2612					14590										
			STD	0010	0287	3275		2612		0019003		0019	14591										
			OBS	0010	0287	32746		2612					14591										
			STD	0020	0286	3275		2612		0018999		0038	14593										
000			OBS	0020	0286	32746		2612					14593										
			STD	0030	0185	3278		2623		0017989		0057	14551										
			OBS	0030	0185	32780		2623					14551										
			STD	0050	0036	3293		2644		0015958		0090	14489										
			OBS	0050	0036	32930		2644					14489										
			STD	0075	-0005	3330		2676		0012916		0127	14479										
			OBS	0075	-0005	33302		2676					14479										
			OBS	0091	0014	33480		2689					14493										

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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
						10"	1"	MO	DAY		HR.1/10												
318081	CO	4700 N	04813 W	149	78	05	29	206	1969	11P	10552	0122	01	16	3	3	X2	0	6	0089			
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE		TRANS. INT.		DIR.		SPEED OR FORCE		DRY BULB		WET BULB							
						DT		SD		16		S23		054		06		05		7			

MESSNGR 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. $\times 10^3$	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
206		STD	0000	0267	3275	2614	0018841	0000	14581								
		OBS	0000	0267	32746	2614			14581								
		STD	0010	0266	3275	2614	0018837	0019	14582								
000		OBS	0010	0266	32746	2614			14582								
		STD	0020	0263	3274	2614	0018832	0038	14583								
		OBS	0020	0263	32744	2614			14583								
		STD	0030	0160	3277	2624	0017897	0056	14539								
		OBS	0030	0160	32770	2624			14539								
		STD	0050	0012	3294	2646	0015765	0090	14478								
		OBS	0050	0012	32940	2646			14478								
		STD	0075	-0021	3312	2662	0014217	0127	14470								
		OBS	0075	-0021	33122	2662			14470								
	STD	0100	-0004	3338	2682	0012319	0160	14485									
	OBS	0100	-0004	33380	2682			14485									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	MARS 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
							10"	1"	MO	DAY		HR.1/10												
318081	CO	4700 N	04758 W		149	77	05	29	215	1969	11P	10553	0146	01	14	2	3		X2	0	6		0090	

MESSNGR TIME HR 1/10	CARD 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 $\mu\text{g} - \text{dl/l}$	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
215		STD	0000	0244	3274	2615	0018710	0000	14571								
		OBS	0000	0244	32740	2615			14571								
000		STD	0010	0244	3274	2615	0018713	0019	14573								
		OBS	0010	0244	32740	2615			14573								
		STD	0020	0237	3274	2616	0018678	0037	14571								
		OBS	0020	0237	32738	2616			14571								
		STD	0030	0175	3274	2621	0018209	0056	14546								
		OBS	0030	0175	32742	2621			14546								
		STD	0050	-0036	3302	2655	0014942	0089	14457								
		OBS	0050	-0036	33020	2655			14457								
		STD	0075	-0046	3311	2662	0014210	0125	14458								
		OBS	0075	-0046	33109	2662			14458								
	STD	0100	-0022	3326	2673	0013166	0160	14475									
	OBS	0100	-0022	33258	2673			14475									
	STD	0125	0012	3346	2688	0011783	0191	14498									
	OBS	0125	0012	33460	2688			14498									

REFERENCE	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		NOCC STATION NUMBER					
								CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT						
318081	CO	4659 N	04744 W	149	67	05 29 225	1969	IIP	10554	0177	01	15	2	3		X2	0	6	0091					
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
COLOR CODE		TRANS. (m)		DIR.		SPEED OF FORCE		METER (mba)		DRY BULB											WET BULB			
DT	SD	14	S20	054	08	06	7	10																

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -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	1 CC
		STD	0000	0182	3268	2615	0018723	0000	14543								
	225	OBS	0000	0182	32680	2615			14543								
		STD	0010	0178	3268	2615	0018713	0019	14543								
		OBS	0010	0178	32678	2615			14543								
		STD	0020	0138	3269	2619	0018386	0037	14527								
	000	OBS	0020	0138	32687	2619			14527								
		STD	0030	-0007	3289	2643	0016043	0054	14465								
		OBS	0030	-0007	32893	2643			14465								
		OBS	0037	-0050	32960	2650			14448								
		STD	0050	0014	3305	2654	0014973	0085	14480								
		OBS	0050	0014	33045	2654			14480								
		STD	0075	-0042	3322	2671	0013371	0121	14461								
		OBS	0075	-0042	33221	2671			14461								
		STD	0100	0000	3339	2683	0012247	0153	14487								
		OBS	0100	0000	33392	2683			14487								
		STD	0125	0043	3356	2694	0011186	0182	14513								
		OBS	0125	0043	33560	2694			14513								
		OBS	0133	0047	33575	2695			14517								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER INDIC	MARSSEN SQUARE	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 CODE	ID. NO.								CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT			
318081	CO	4700 N	04727 W	149	77	05 29 238	1969	IIP	10555	0284	02	24	3	3		X2	0	6	0092			
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
COLOR CODE		TRANS. (m)		DIR.		SPEED OF FORCE		METER (mba)		DRY BULB				WET BULB								
DT	SD	14	S24	058	06	05	7	11														

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}	$\Sigma \Delta$ OYN. M. X 10 ³	SOUND VELOCITY	O ₂ ml/l	PO ₂ -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	1 CC
		STD	0000	0191	3297	2637	0016598	0000	14551								
	238	OBS	0000	0191	32968	2637			14551								
		STD	0010	0191	3297	2637	0016600	0017	14552								
		OBS	0010	0191	32968	2637			14552								
		STD	0020	0191	3297	2637	0016602	0033	14554								
	001	OBS	0020	0191	32968	2637			14554								
		STD	0030	0190	3297	2638	0016597	0050	14555								
		OBS	0030	0190	32968	2638			14555								
		STD	0050	-0053	3340	2686	0011968	0078	14455								
		OBS	0050	-0053	33400	2686			14455								
		STD	0075	-0083	3365	2707	0009969	0106	14448								
		OBS	0075	-0083	33645	2707			14448								
		STD	0100	0103	3387	2716	0009186	0130	14540								
		OBS	0100	0103	33870	2716			14540								
		STD	0125	0112	3392	2719	0008898	0152	14549								
		OBS	0125	0112	33916	2719			14549								
		STD	0150	0123	3396	2722	0008641	0174	14559								
		OBS	0150	0123	33960	2722			14559								
		STD	0200	0150	3415	2735	0007417	0214	14582								
		OBS	0200	0150	34148	2735			14582								
		STD	0250	0202	3432	2745	0006540	0249	14615								
		OBS	0250	0202	34319	2745			14615								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	SHEET INCHES	MARSOEN 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	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081	CO	46597N	04713 W	149	67	05	30	010	1969	IIP	10556		1024	10	24	3	3		X2	0	6	0093	
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB															
		DT	SD	13	S22	047	07	07	6	19													
MESSNGR TIME HR. 1/10	CASST NO.	CARO TYPE	DEPTM (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 $\mu g - dl/l$	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	ST C						
010		STD	0000	0280	3331	2658	0014669	0000	14594														
		OBS	0000	0280	33311	2658			14594														
		STD	0010	0275	3333	2660	0014482	0015	14594														
003		OBS	0010	0275	33331	2660			14594														
		STD	0020	0255	3352	2676	0012928	0028	14590														
		OBS	0020	0255	33516	2676			14590														
		STD	0030	0257	3357	2680	0012540	0041	14593														
		OBS	0030	0257	33570	2680			14593														
		STD	0050	0145	3380	2707	0009982	0064	14550														
		OBS	0050	0145	33800	2707			14550														
		STD	0075	0097	3402	2728	0007976	0086	14536														
		OBS	0075	0097	34024	2728			14536														
		STD	0100	0123	3414	2736	0007275	0105	14553														
		OBS	0100	0123	34139	2736			14553														
		STD	0125	0180	3426	2742	0006767	0123	14584														
		OBS	0125	0180	34260	2742			14584														
		STD	0150	0173	3433	2748	0006209	0139	14586														
		OBS	0150	0173	34328	2748			14586														
		STD	0200	0281	3456	2757	0005369	0168	14645														
		OBS	0200	0281	34560	2757			14645														
		STD	0250	0337	3468	2762	0005033	0194	14679														
		OBS	0250	0337	34679	2762			14679														
		STD	0300	0376	3480	2767	0004552	0218	14705														
		OBS	0300	0376	34801	2767			14705														
		STD	0400	0409	3487	2769	0004489	0263	14737														
		OBS	0400	0409	34869	2769			14737														
		STD	0500	0408	3489	2771	0004441	0308	14753														
		OBS	0500	0408	34887	2771			14753														
		STD	0600	0403	3490	2772	0004407	0352	14767														
		OBS	0600	0403	34897	2772			14767														
		STD	0700	0396	3490	2773	0004385	0396	14781														
		OBS	0700	0396	34902	2773			14781														
		STD	0800	0392	3490	2774	0004416	0440	14796														
		OBS	0800	0392	3408P	2709P																	
		STD	0900	0378	3491	2776	0004328	0484	14807														
		OBS	0900	0378	34906	2776			14807														
		STD	1000	0370	3490	2776	0004343	0527	14820														
		OBS	1000	0370	34903	2776			14820														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	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	
CTRY CODE	ID. NO.					10°	1°	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318081						CO	4700 N	04700 W	149		77	05			30	030	1969	11P		10557	1189		10
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
COLOR CODE	TRANS. MI	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																		
DT	SD	13	S22	027	08	08	7	20															
MESSENGER TIME HR 1/10	CAS- T NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND MALT-X10 ³	Σ 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	Si C						
		STD	0000	0390	3383	2689	0011702	0000	14649														
031		OBS	0000	0390	33833	2689			14649														
		STD	0010	0390	3383	2689	0011725	0012	14650														
		OBS	0010	0390	33831	2689			14650														
		STD	0020	0387	3383	2689	0011697	0023	14651														
003		OBS	0020	0387	33832	2689			14651														
		STD	0030	0362	3381	2690	0011635	0035	14641														
		OBS	0030	0362	33810	2690			14641														
		STD	0050	0186	3393	2715	0009283	0056	14570														
		OBS	0050	0186	33930	2715			14570														
		STD	0075	0202	3407	2725	0008365	0078	14583														
		OBS	0075	0202	34068	2725			14583														
		STD	0100	0234	3428	2739	0007031	0097	14604														
		OBS	0100	0234	34279	2739			14604														
		STD	0125	0256	3443	2749	0006101	0114	14620														
		OBS	0125	0256	34428	2749			14620														
		STD	0150	0328	3464	2760	0005147	0128	14658														
		OBS	0150	0328	34642	2760			14658														
		STD	0200	0376	3477	2765	0004680	0152	14688														
		OBS	0200	0376	34772	2765			14688														
		STD	0250	0399	3484	2768	0004460	0175	14707														
		OBS	0250	0399	34839	2768			14707														
		STD	0300	0404	3486	2769	0004397	0197	14718														
		OBS	0300	0404	34861	2769			14718														
		STD	0400	0397	3488	2771	0004314	0241	14732														
		OBS	0400	0397	34875	2771			14732														
		STD	0500	0388	3488	2772	0004273	0284	14744														
		OBS	0500	0388	34880	2772			14744														
		STD	0600	0380	3488	2773	0004291	0327	14758														
		OBS	0600	0380	34878	2773			14758														
		STD	0700	0375	3488	2774	0004310	0370	14772														
		OBS	0700	0375	34880	2774			14772														
		STD	0800	0372	3488	2774	0004349	0413	14787														
		OBS	0800	0372	34882	2774			14787														
		STD	0900	0366	3488	2775	0004359	0456	14802														
		OBS	0900	0366	34883	2775			14802														
		STD	1000	0365	3489	2776	0004388	0500	14818														
		OBS	1000	0365	34889	2776			14818														
		OBS	1050	0365	34901	2776			14826														

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	MARS 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	
318081	CO		47005N	04647 W		149	76	05	30	045	1969	11P	10558	0805	08	12	2	3		X6	0	6	0095
						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											
						DT	SD	12	S28	000	08	08	6	17									

MESSNGR TIME HR 1/10	CAST OF 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 $\mu\text{g} \cdot \text{at/l}$	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 C
045	STD		0000	0443	3370	2673	0013225	0000	14669								
	OBS		0000	0443	33700	2673			14669								
002	STD		0010	0443	3370	2673	0013234	0013	14671								
	OBS		0010	0443	33700	2673			14671								
	STD		0020	0443	3370	2673	0013243	0026	14672								
	OBS		0020	0443	33700	2673			14672								
	STD		0030	0439	3370	2673	0013211	0040	14672								
	OBS		0030	0439	33700	2673			14672								
	STD		0050	0219	3396	2714	0009339	0062	14585								
	OBS		0050	0219	33955	2714			14585								
	STD		0075	0243	3418	2730	0007838	0084	14603								
	OBS		0075	0243	34180	2730			14603								
	STD		0100	0253	3432	2741	0006876	0102	14613								
	OBS		0100	0253	34320	2741			14613								
	STD		0125	0295	3448	2750	0006039	0118	14637								
	OBS		0125	0295	34481	2750			14637								
	STD		0150	0355	3469	2761	0005043	0132	14670								
	OBS		0150	0355	34690	2761			14670								
	STD		0200	0406	3481	2765	0004687	0156	14702								
	OBS		0200	0406	34812	2765			14702								
	STD		0250	0413	3486	2768	0004488	0179	14713								
	OBS		0250	0413	34855	2768			14713								
	STD		0300	0414	3488	2770	0004377	0202	14722								
	OBS		0300	0414	34878	2770			14722								
	STD		0400	0388	3488	2773	0004172	0244	14728								
	OBS		0400	0388	34881	2773			14728								
	STD		0500	0378	3488	2774	0004149	0286	14740								
	OBS		0500	0378	34882	2774			14740								
	STD		0600	0373	3488	2774	0004177	0328	14755								
	OBS		0600	0373	34883	2774			14755								
	STD		0700	0369	3489	2775	0004168	0369	14770								
	OBS		0700	0369	34890	2775			14770								
	OBS		0758	0369	34893	2775			14779								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT DIRECTION	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	
318081	CO		4702 N	04632 W		149	76	05	30	065	1969	11P	10559	0320	03	11	3	3		X6	0	6	0096
WATER						WIND			AIR TEMP. °C			BARO- METER		DRY TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS					
COLOR CODE		TRANS. INT.		DIR.	SPEED OR FORCE		METER (mba)		DRY BULB		WET BULB												
DT		SD		11	S30		980		09		08		6	14									

MESSNGR TIME HR 1/10	CAST OF 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 $\mu\text{g} \cdot \text{at/l}$	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 C
065	STD		0000	0502	3369	2666	0013895	0000	14694								
	OBS		0000	0502	33693	2666			14694								
001	STD		0010	0497	3370	2667	0013769	0014	14693								
	OBS		0010	0497	33704	2667			14693								
	STD		0020	0496	3372	2669	0013641	0028	14695								
	OBS		0020	0496	33721	2669			14695								
	STD		0030	0496	3372	2669	0013651	0041	14696								
	OBS		0030	0496	33721	2669			14696								
	STD		0050	0465	3388	2685	0012133	0067	14689								
	OBS		0050	0465	33882	2685			14689								
	STD		0075	0361	3408	2712	0009634	0094	14652								
	OBS		0075	0361	34079	2712			14652								
	STD		0100	0310	3411	2719	0008928	0117	14635								
	OBS		0100	0310	34113	2719			14635								
	OBS		0107	0249	34128	2726			14610								
	OBS		0119	0270	34300	2738			14623								
	STD		0125	0240	3427	2738	0007175	0138	14611								
	OBS		0125	0240	34268	2738			14611								
	STD		0150	0389	3461	2751	0005965	0154	14683								
	OBS		0150	0389	34612	2751			14683								
	STD		0200	0423	3478	2761	0005106	0182	14708								
	OBS		0200	0423	34780	2761			14708								
	STD		0250	0408	3484	2767	0004563	0206	14711								
	OBS		0250	0408	34838	2767			14711								
	OBS		0280	0401	34855	2769			14713								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	PORT MOOR	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO EDTOM	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.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
						WATER		WIND		BARO- METER		AIR TEMP. °C				VIS.		ND. OBS. DEPTHS		SPECIAL OBSERVATIONS			
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	METER (mbars)		DRY BULB	WET BULB	VIL CODE													
		DT	SD	11	S22	956		09	08	6	13												
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. 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	S C				
		STD	0000	0562	3382	2669		0013605		0000	14720												
	082	OBS	0000	0562	33821	2669					14720												
		STD	0010	0561	3382	2669		0013598		0014	14721												
		OBS	0010	0561	33822	2669					14721												
		STD	0020	0561	3382	2669		0013609		0027	14723												
	001	OBS	0020	0561	33822	2669					14723												
		STD	0030	0559	3383	2670		0013568		0041	14724												
		OBS	0030	0559	33826	2670					14724												
		STD	0050	0482	3390	2684		0012193		0067	14696												
		OBS	0050	0482	33898	2684					14696												
		OBS	0062	0450	33924	2690					14685												
		STD	0075	0486	3418	2706		0010148		0094	14706												
		OBS	0075	0486	34180	2706					14706												
		STD	0100	0641	3466	2725		0008428		0118	14779												
		OBS	0100	0641	34660	2725					14779												
		STD	0125	0501	3458	2736		0007375		0137	14726												
		OBS	0125	0501	34580	2736					14726												
		STD	0150	0436	3455	2741		0006916		0155	14702												
		OBS	0150	0436	34550	2741					14702												
		OBS	0157	0468	34652	2746					14718												
		STD	0200	0419	3472	2757		0005483		0186	14706												
		OBS	0200	0419	34724	2757					14706												
		STD	0250	0409	3484	2767		0004573		0211	14711												
		OBS	0250	0409	34838	2767					14711												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH IN METERS	MARS DEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLDUD CODES		NODC STATION NUMBER
CITY CODE	ID. NO.						MO	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR.				TYPE	AMT					
													10"			1'			10"		1'	10"	
318081	CO		47216N	04607 W		149 76	05	30	100	1969	11P	10561		0309	03	11	3	3		X4	0 6		0098
		WATER				WIND				BARO- METER		AIR TEMP. °C		VIS. CODE	ND. OBS. DEPTHS	SPECIAL OBSERVATIONS							
		COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE	METER (mbars)		DRY BULB		WET BULB													
		DT	SD	12	S18	942		08		08		2		12									
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 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			
		STD	0000	0556	3382	2670		0013543		0000		14717											
	100	OBS	0000	0556	33820	2670						14717											
		STD	0010	0555	3382	2670		0013559		0014		14719											
		OBS	0010	0555	33818	2670						14719											
		STD	0020	0556	3382	2670		0013582		0027		14721											
	001	OBS	0020	0556	33818	2670						14721											
		STD	0030	0556	3382	2670		0013594		0041		14722											
		OBS	0030	0556	33818	2670						14722											
		STD	0050	0528	3384	2675		0013141		0067		14714											
		OBS	0050	0528	33839	2675						14714											
		STD	0075	0519	3415	2700		0010776		0097		14719											
		OBS	0075	0519	34145	2700						14719											
		STD	0100	0678	3466	2720		0008944		0122		14794											
		OBS	0100	0678	34655	2720						14794											
		STD	0125	0528	3450	2727		0008267		0144		14736											
		OBS	0125	0528	34502	2727						14736											
		STD	0150	0527	3463	2737		0007329		0163		14741											
		OBS	0150	0527	34630	2737						14741											
		STD	0200	0467	3475	2754		0005808		0196		14726											
		OBS	0200	0467	34750	2754						14726											
		STD	0250	0420	3481	2764		0004892		0223		14716											
		OBS	0250	0420	34811	2764						14716											
		OBS	0280	0405	34830	2767						14715											

REFERENCE		SHIP CODE	LATITUDE " 1/10	LONGITUDE " 1/10	DRAFT METER	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	
CRUISE CODE	ID. NO.					10"	1"	MO	DAY	HR. 1/10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT			
318081	CO		48004N	046040W		149	86	05	30	136	1969	11P	10563	0713	07	12	5	3		X4	0	6		0100	
						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													
						DT	SD	13	S19	926	09	09	0	16											
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 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	0440	3379	2681	0012510		0000	14669															
136		OBS	0000	0440	33791	2681				14669															
		STD	0010	0438	3379	2681	0012499		0013	14670															
		OBS	0010	0438	33791	2681				14670															
		STD	0020	0428	3381	2684	0012249		0025	14668															
001		OBS	0020	0428	33812	2684				14668															
		STD	0030	0380	3392	2697	0010991		0036	14651															
		OBS	0030	0380	33918	2697				14651															
		STD	0050	0276	3408	2719	0008859		0056	14611															
		OBS	0050	0276	34079	2719				14611															
		STD	0075	0257	3419	2730	0007907		0077	14609															
		OBS	0075	0257	34186	2730				14609															
		STD	0100	0278	3433	2739	0007050		0096	14624															
		OBS	0100	0278	34325	2739				14624															
		STD	0125	0307	3448	2748	0006161		0113	14643															
		OBS	0125	0307	34479	2748				14643															
		STD	0150	0348	3465	2758	0005276		0127	14667															
		OBS	0150	0348	34650	2758				14667															
		STD	0200	0394	3483	2768	0004443		0151	14697															
		OBS	0200	0394	34828	2768				14697															
		STD	0250	0399	3486	2770	0004288		0173	14707															
		OBS	0250	0399	34862	2770				14707															
		STD	0300	0400	3489	2772	0004153		0194	14717															
		OBS	0300	0400	34888	2772				14717															
		STD	0400	0391	3490	2774	0004047		0235	14729															
		OBS	0400	0391	34902	2774				14729															
		STD	0500	0387	3491	2775	0004046		0276	14744															
		OBS	0500	0387	34909	2775				14744															
		STD	0600	0380	3491	2776	0004053		0316	14758															
		OBS	0600	0380	34910	2776				14758															
		OBS	0685	0373	34910	2776				14769															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	MARSOEN 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.						MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318081		CD	48205N	04605 W	149	86	05	30	155	1969	IIP	10564	1033	10	13	5	3	X4	0	6	0101

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	SO	13	S15	926	09	08	1	20	

MESSENGER TIME HR 1/10	CAST NO.	CARGO 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 - 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.
		STD	0000	0337	3373	2686	0011997	0000	14625								
155		OBS	0000	0337	33729	2686			14625								
		STD	0010	0337	3373	2686	0011996	0012	14626								
		OBS	0010	0337	33730	2686			14626								
		STD	0020	0337	3373	2686	0011988	0024	14628								
002		OBS	0020	0337	33732	2686			14628								
		STD	0030	0333	3373	2686	0011974	0036	14628								
		OBS	0030	0333	33730	2686			14628								
		STD	0050	0152	3416	2736	0007277	0055	14558								
		OBS	0050	0152	34163	2736			14558								
		STD	0075	0178	3433	2747	0006204	0072	14576								
		OBS	0075	0178	34330	2747			14576								
		STD	0100	0210	3444	2754	0005624	0087	14596								
		OBS	0100	0210	34440	2754			14596								
		STD	0125	0273	3458	2760	0005100	0100	14629								
		OBS	0125	0273	34580	2760			14629								
		STD	0150	0325	3466	2761	0004961	0113	14657								
		OBS	0150	0325	34663	2761			14657								
		STD	0200	0378	3479	2766	0004565	0137	14689								
		OBS	0200	0378	34790	2766			14689								
		STD	0250	0398	3485	2769	0004360	0159	14707								
		OBS	0250	0398	34851	2769			14707								
		STD	0300	0409	3489	2771	0004256	0181	14720								
		OBS	0300	0409	34887	2771			14720								
		STD	0400	0403	3490	2773	0004192	0223	14734								
		OBS	0400	0403	34900	2773			14734								
		STD	0500	0397	3491	2774	0004185	0265	14749								
		OBS	0500	0397	34905	2774			14749								
		STD	0600	0394	3491	2774	0004201	0307	14764								
		OBS	0600	0394	34911	2774			14764								
		STD	0700	0387	3491	2775	0004215	0349	14778								
		OBS	0700	0387	34911	2775			14778								
		STD	0800	0378	3491	2776	0004232	0391	14790								
		OBS	0800	0378	34907	2776			14790								
		STD	0900	0371	3490	2776	0004269	0433	14804								
		OBS	0900	0371	34903	2776			14804								
		STD	1000	0368	3491	2777	0004268	0476	14820								
		OBS	1000	0368	34910	2777			14820								
		OBS	1008	0368	34911	2777			14821								

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	TIME 1/10	MARS SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NCO STATION NUMBER
CRUISE CODE	IO. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
						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															
318081		CO	4835 N	04605 W	149	86	05	30	171	1969	11P	10565	1042	10	13	5	4		X4	0	6	0102	

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	ROUTE NO.	MARDEN 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
318081		CO	4525 N	04547 W		149	55	05	31	182	1969	IIP	10566	3457	15	26	6	4		X6	0 6		0103
						WATER		WIND		AIR TEMP. °C													
						COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE	BARO- METER (mbars)	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
						DT	SD	23	528	953	08	07	6	27									
MESSAGE TIME HR 1/10	CAST NO.	CARGO 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		
182	STD	0000	0667	3375	2650	0015418		0000		14761													
	OBS	0000	0667	33748	2650					14761													
003	STD	0010	0668	3375	2650	0015437		0015		14763													
	OBS	0010	0668	33749	2650					14763													
	STD	0020	0668	3375	2650	0015451		0031		14765													
	OBS	0020	0668	33749	2650					14765													
	STD	0030	0668	3375	2650	0015458		0046		14766													
	OBS	0030	0668	33750	2650					14766													
	STD	0050	0540	3387	2676	0013045		0075		14720													
	OBS	0050	0540	33870	2676					14720													
	STD	0075	0685	3447	2704	0010376		0104		14790													
	OBS	0075	0685	34470	2704					14790													
	STD	0100	0690	3468	2720	0008894		0128		14799													
	OBS	0100	0690	34683	2720					14799													
	STD	0125	0540	3453	2728	0008197		0150		14741													
	OBS	0125	0540	34530	2728					14741													
	STD	0150	0520	3460	2735	0007487		0169		14738													
	OBS	0150	0520	34598	2735					14738													
	OBS	0164	0558	34693	2738					14757													
	OBS	0175	0498	34655	2743					14734													
	OBS	0182	0544	34775	2747					14755													
	STD	0200	0501	3474	2749	0006237		0203		14740													
OBS	0200	0501	34744	2749					14740														
STD	0250	0513	3487	2758	0005510		0233		14755														
OBS	0250	0513	34868	2758					14755														
STD	0300	0498	3490	2762	0005126		0259		14757														
OBS	0300	0498	34904	2762					14757														
STD	0400	0475	3496	2769	0004594		0308		14765														
OBS	0400	0475	34955	2769					14765														
STD	0500	0428	3494	2773	0004301		0353		14762														
OBS	0500	0428	34936	2773					14762														
STD	0600	0410	3493	2774	0004226		0395		14771														
OBS	0600	0410	34932	2774					14771														
STD	0700	0396	3493	2775	0004214		0437		14782														
OBS	0700	0396	34925	2775					14782														
STD	0800	0388	3492	2776	0004222		0480		14795														
OBS	0800	0388	34924	2776					14795														
STD	0900	0376	3492	2776	0004238		0522		14806														
OBS	0900	0376	34915	2776					14806														
STD	1000	0370	3492	2777	0004240		0564		14820														
OBS	1000	0370	34917	2777					14820														
STD	1100	0368	3492	2778	0004265		0607		14836														
OBS	1100	0368	34922	2778					14836														
STD	1200	0367	3493	2779	0004271		0649		14853														
OBS	1200	0367	34931	2779					14853														
STD	1300	0370	3495	2780	0004283		0692		14871														
OBS	1300	0370	34946	2780					14871														
STD	1400	0365	3495	2780	0004304		0735		14886														
OBS	1400	0365	34946	2780					14886														
OBS	1480	0361	34950	2781					14898														

REFERENCE	SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	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"	M O 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						
DT	SD	26	S20	000	07	06	6	25			

MESSENGER 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. $\times 10^3$	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	0545	3341	2638	0016506	0000	14707								
228		OBS	0000	0545	33408	2638			14707								
		STD	0010	0547	3341	2638	0016540	0017	14710								
		OBS	0010	0547	33408	2638			14710								
		STD	0020	0544	3341	2639	0016502	0033	14710								
004		OBS	0020	0544	33410	2639			14710								
		STD	0030	0560	3352	2645	0015886	0049	14720								
		OBS	0030	0560	33518	2645			14720								
		STD	0050	0813	3445	2684	0012260	0077	14835								
		OBS	0050	0813	34448	2684			14835								
		STD	0075	0810	3467	2702	0010584	0106	14841								
		OBS	0075	0810	34674	2702			14841								
		STD	0100	0648	3436	2701	0010753	0133*	14778								
		OBS	0100	0648	34360	2701			14778								
		STD	0125	0493	3442	2724	0008513	0157	14720								
		OBS	0125	0493	34416	2724			14720								
		STD	0150	0719	3483	2728	0008251	0178	14820								
		OBS	0150	0719	34833	2728			14820								
		OBS	0172	0777	34952	2729			14848								
		STD	0200	0553	3463	2734	0007676	0217	14760								
		OBS	0200	0553	34633	2734			14760								
		STD	0250	0545	3473	2743	0006950	0254	14766								
		OBS	0250	0545	34726	2743			14766								
		STD	0300	0468	3477	2755	0005758	0286	14743								
		OBS	0300	0468	34773	2755			14743								
		STD	0400	0464	3490	2766	0004883	0339	14760								
		OBS	0400	0464	34899	2766			14760								
		STD	0500	0456	3494	2770	0004594	0386	14774								
		OBS	0500	0456	34940	2770			14774								
		STD	0600	0437	3495	2773	0004434	0432	14782								
		OBS	0600	0437	34946	2773			14782								
		STD	0700	0411	3493	2774	0004335	0475	14788								
		OBS	0700	0411	34932	2774			14788								
		STD	0800	0394	3492	2775	0004314	0519	14797								
		OBS	0800	0394	34921	2775			14797								
		STD	0900	0393	3493	2776	0004313	0562	14814								
		OBS	0900	0393	34932	2776			14814								
		STD	1000	0378	3492	2777	0004320	0605	14824								
		OBS	1000	0378	34919	2777			14824								
		STD	1100	0373	3492	2777	0004355	0648	14838								
		OBS	1100	0373	34918	2777			14838								
		STD	1200	0386	3495	2778	0004381	0692	14861								
		OBS	1200	0386	34948	2778			14861								
		STD	1300	0378	3495	2779	0004368	0736	14874								
		OBS	1300	0378	34948	2779			14874								
		STD	1400	0373	3495	2780	0004361	0779	14889								
		OBS	1400	0373	34952	2780			14889								
		STD	1500	0363	3495	2780	0004368	0823	14902								
		OBS	1500	0363	34945	2780			14902								

REFERENCE		SHIP CODE	LATITUDE ° ' / 10	LONGITUDE ° ' / 10	DEPTH METER	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		NOOC STATION NUMBER		
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR. / 10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT	
318081		CO	4350 N	04510 W		149	35	06	01 036	1969	IIP	10568	4627	15	24	6	4		X2	0	6		0105	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		ND. DBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB												
						DT	SD	26	S33	034	11	10	7	24										
MESSAGE TIME HR 1/10	CST 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 - at/l	TOTAL-P μg - at/l	NO ₂ -N μg - at/l	NO ₃ -N μg - at/l	SID ₄ -Si μg - at/l	pH	S C C						
036		STO	0000	1424	3572	2671	0013436		0000	15058														
		OBS	0000	1424	35718	2671				15058														
		STO	0010	1428	3574	2672	0013393		0013	15062														
004		OBS	0010	1428	35739	2672				15062														
		STO	0020	1437	3577	2672	0013373		0027	15067														
		OBS	0020	1437	35771	2672				15067														
		STO	0030	1505	3603	2677	0012910		0040	15093														
		OBS	0030	1505	36032	2677				15093														
		STO	0050	1518	3608	2678	0012897		0066	15101														
		OBS	0050	1518	36080	2678				15101														
		STO	0075	1495	3605	2681	0012728		0098	15097														
		OBS	0075	1495	36047	2681				15097														
		STO	0100	1473	3601	2683	0012627		0129	15094														
		OBS	0100	1473	36008	2683				15094														
		STO	0125	1416	3591	2687	0012223		0161	15079														
		OBS	0125	1416	35912	2687				15079														
		STO	0150	1387	3590	2692	0011831		0191	15073														
		OBS	0150	1387	35895	2692				15073														
		STO	0200	1372	3588	2694	0011810		0250	15076														
		OBS	0200	1372	35876	2694				15076														
		STO	0250	1339	3582	2697	0011684		0308	15073														
		OBS	0250	1339	35822	2697				15073														
		STO	0300	1267	3566	2699	0011567		0367	15055														
		OBS	0300	1267	35663	2699				15055														
		STO	0400	1085	3536	2710	0010622		0478	15005														
		OBS	0400	1085	35364	2710				15005														
		STO	0500	0815	3502	2729	0008886		0575	14917														
		OBS	0500	0815	35018	2729				14917														
		STO	0600	0681	3498	2745	0007379		0656	14881														
		OBS	0600	0681	34976	2745				14881														
		STO	0700	0602	3504	2760	0005974		0723	14867														
		OBS	0700	0602	35037	2760				14867														
		STO	0800	0523	3500	2767	0005345		0780	14852														
		OBS	0800	0523	34997	2767				14852														
		STO	0900	0487	3501	2772	0004936		0831	14854														
		OBS	0900	0487	35005	2772				14854														
		STO	1000	0459	3500	2775	0004709		0879	14859														
		OBS	1000	0459	35002	2775				14859														
		STO	1100	0437	3500	2777	0004568		0926	14866														
		OBS	1100	0437	34997	2777				14866														
		STO	1200	0418	3498	2777	0004549		0971	14875														
		OBS	1200	0418	34980	2777				14875														
		STO	1300	0404	3498	2778	0004493		1017	14886														
		OBS	1300	0404	34976	2778				14886														
		STO	1400	0394	3497	2779	0004477		1061	14898														
		OBS	1400	0394	34973	2779				14898														
		STO	1500	0389	3497	2780	0004500		1106	14913														
		OBS	1500	0389	34973	2780				14913														

REFERENCE CITY CODE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	MARS 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'	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
318081	CO	4400 N	04551 W	149 45	06	01	082	1969	IIP	10569	4551	15	24	4	4		X2	0	6		0106	
				WATER		WIND		BARO- METER (mbs)		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
				COLOR CODE	TRANS. M	DIR.	SPEED OR FORCE			DRY RULE	WET RULE											
				DT	SD	26	S22	041	10	08	7	25										

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DYN. W. $\times 10^3$	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 ₂ -N $\mu\text{g} \cdot \text{at/l}$	SiO ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	S C
		STD	0000	1418	3583	2681	0012495	0000	15058								
082		OBS	0000	1418	35830	2681			15058								
		STD	0010	1417	3583	2681	0012482	0012	15059								
		OBS	0010	1417	35833	2681			15059								
		STD	0020	1421	3584	2681	0012534	0025	15062								
002		OBS	0020	1421	35841	2681			15062								
		STD	0030	1422	3584	2681	0012562	0038	15064								
		OBS	0030	1422	35844	2681			15064								
		STD	0050	1420	3584	2681	0012581	0063	15067								
		OBS	0050	1420	35844	2681			15067								
		STD	0075	1409	3582	2682	0012621	0094	15067								
		OBS	0075	1409	35818	2682			15067								
		STD	0100	1408	3582	2682	0012674	0126	15071								
		OBS	0100	1408	35818	2682			15071								
		STD	0125	1408	3586	2685	0012462	0157	15075								
		OBS	0125	1408	35857	2685			15075								
		STD	0150	1410	3590	2687	0012298	0188	15081								
		OBS	0150	1410	35895	2687			15081								
		STD	0200	1408	3593	2690	0012170	0249	15089								
		OBS	0200	1408	35927	2690			15089								
		STD	0250	1343	3578	2693	0012085	0310	15074								
		OBS	0250	1343	35778	2693			15074								
		STD	0273	1293	35655	2693			15059								
		OBS	0300	1326	3576	2695	0012024	0370	15076								
		STD	0300	1326	35759	2695			15076								
		OBS	0400	1153	3542	2702	0011467	0488	15029								
		STD	0400	1153	35417	2702			15029								
		OBS	0500	0859	3512	2730	0008836	0589	14935								
		STD	0500	0859	35118	2730			14935								
		OBS	0600	0633	3488	2743	0007446	0671	14861								
		STD	0600	0633	34876	2743			14861								
		OBS	0700	0569	3496	2758	0006134	0739	14853								
		STD	0700	0569	34955	2758			14853								
		OBS	0800	0510	3500	2768	0005176	0795	14846								
		STD	0800	0510	34997	2768			14846								
		OBS	0900	0448	3496	2772	0004797	0845	14837								
		STD	0900	0448	34957	2772			14837								
		OBS	1000	0422	3496	2775	0004589	0892	14843								
		STD	1000	0422	34955	2775			14843								
		OBS	1100	0401	3495	2776	0004491	0937	14850								
		STD	1100	0401	34946	2776			14850								
		OBS	1200	0387	3493	2777	0004518	0982	14861								
		STD	1200	0387	34931	2777			14861								
		OBS	1300	0388	3494	2777	0004560	1028	14878								
		STD	1300	0388	34939	2777			14878								
		OBS	1400	0376	3493	2778	0004546	1073	14890								
		STD	1400	0376	34932	2778			14890								
		OBS	1500	0377	3494	2778	0004593	1119	14907								
		STD	1500	0377	34939	2778			14907								

REFERENCE CITY CODE	SHIP ID. NO.	SNIP CODE	LATITUDE 1/10	LONGITUDE 1/10	SHIFT INDICATOR	MARSDEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE'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		AMT			
318081		CO	4408 N	04631 W		149	46	06	01	120	1969	11P	10570	3621	15	28	S	3		X6	0	6		0107			
							WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS											
							COLOR CODE	TRANS. 1m	DIR.	SPEED OR FORCE		DRY BULB	WET BULB														
							OT	SD	23	S24	034	10	08	7	25												
MESSENGER TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY-30°	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										
	120	STD	0000	1466	3601	2684		0012141	0000																		
		OBS	0000	1466	36013	2684																					
		STD	0010	1466	3601	2684		0012171	0012																		
		OBS	0010	1466	36013	2684																					
		STD	0020	1467	3601	2684		0012222	0024																		
003		OBS	0020	1467	36013	2684																					
		STD	0030	1467	3601	2684		0012253	0037																		
		OBS	0030	1467	36013	2684																					
		STD	0050	1467	3602	2685		0012284	0061																		
		OBS	0050	1467	36017	2685																					
		STD	0075	1468	3602	2684		0012381	0092																		
		OBS	0075	1468	36017	2684																					
		STD	0100	1468	3602	2684		0012457	0123																		
		OBS	0100	1468	36017	2684																					
		STD	0125	1468	3602	2684		0012532	0154																		
		OBS	0125	1468	36017	2684																					
		STD	0150	1458	3600	2685		0012508	0186																		
		OBS	0150	1458	36002	2685																					
		STD	0200	1444	3597	2686		0012621	0248																		
		OBS	0200	1444	35967	2686																					
		STD	0250	1350	3582	2694		0011955	0310																		
		OBS	0250	1350	35815	2694																					
		STD	0300	1355	3585	2696		0011941	0370																		
		OBS	0300	1355	35850	2696																					
		STD	0400	1186	3549	2701		0011569	0487																		
		OBS	0400	1186	35487	2701																					
		STD	0500	0943	3520	2722		0009619	0593																		
		OBS	0500	0943	35197	2722																					
		STD	0600	0711	3502	2744		0007508	0679																		
		OBS	0600	0711	35017	2744																					
		STD	0700	0551	3489	2755		0006348	0748																		
		OBS	0700	0551	34894	2755																					
		OBS	0753	0493	34889	2762																					
		STD	0800	0507	3497	2767		0005322	0806																		
		OBS	0800	0507	34972	2767																					
		STD	0900	0466	3496	2770		0005023	0858																		
		OBS	0900	0466	34957	2770																					
		STD	1000	0463	3498	2773		0004893	0908																		
		OBS	1000	0463	34984	2773																					
		STD	1100	0423	3495	2774		0004751	0956																		
		OBS	1100	0423	34948	2774																					
		STD	1200	0415	3495	2776		0004702	1003																		
		OBS	1200	0415	34954	2776																					
		STD	1300	0401	3496	2777		0004594	1050																		
		OBS	1300	0401	34957	2777																					
		STD	1400	0392	3495	2778		0004598	1096																		
		OBS	1400	0392	34953	2778																					
		STD	1500	0385	3495	2779		0004587	1141																		
		OBS	1500	0385	34954	2779																					

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	BOAT NUMBER	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
						MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	

318081 CO 4415 N 04711 W 149 47 06 01 152 1969 IIP 10571 4023 15 28 3 5 X6 0 6 0108

WATER		WIND		BARO-		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. mm	DIR.	SPEED OR FORCE	METER mmHg	DRY BULB	WET BULB				

DT SD 24 S12 017 11 09 7 24

MESSNGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t	Σ Δ O OYN. 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	ST C/C
		STD	0000	1018	3420	2632	0017120	0000	14900								
152		OBS	0000	1018	34204	2632			14900								
		STD	0010	1025	3428	2636	0016716	0017	14905								
		OBS	0010	1025	34277	2636			14905								
003		STD	0020	1092	3450	2642	0016237	0033	14934								
		OBS	0020	1092	34497	2642			14934								
		STD	0030	1150	3486	2659	0014618	0049	14960								
		OBS	0030	1150	34857	2659			14960								
		STD	0050	1356	3564	2679	0012810	0076	15043								
		OBS	0050	1356	35637	2679			15043								
		STD	0075	1247	3546	2687	0012096	0107	15009								
		OBS	0075	1247	35457	2687			15009								
		STD	0100	1298	3562	2689	0011963	0137	15032								
		OBS	0100	1298	35617	2689			15032								
		STD	0125	1305	3565	2690	0011962	0167	15039								
		OBS	0125	1305	35645	2690			15039								
		STD	0150	1291	3564	2692	0011832	0197	15038								
		OBS	0150	1291	35635	2692			15038								
		STD	0200	1234	3553	2695	0011667	0256	15026								
		OBS	0200	1234	35527	2695			15026								
		STD	0250	1150	3536	2698	0011483	0314	15003								
		OBS	0250	1150	35357	2698			15003								
		STD	0300	0934	3510	2716	0009758	0367	14930								
		OBS	0300	0934	35102	2716			14930								
		STD	0400	0768	3498	2732	0008303	0457	14882								
		OBS	0400	0768	34977	2732			14882								
		STD	0500	0434	3462	2747	0006744	0532	14760								
		OBS	0500	0434	34617	2747			14760								
		STD	0600	0511	3494	2764	0005343	0593	14813								
		OBS	0600	0511	34944	2764			14813								
		STD	0700	0477	3496	2769	0004955	0644	14816								
		OBS	0700	0477	34955	2769			14816								
		STD	0800	0447	3496	2773	0004628	0692	14820								
		OBS	0800	0447	34964	2773			14820								
		STD	0900	0435	3497	2774	0004554	0738	14832								
		OBS	0900	0435	34968	2774			14832								
		STD	1000	0412	3496	2776	0004466	0783	14839								
		OBS	1000	0412	34955	2776			14839								
		STD	1100	0400	3495	2777	0004449	0828	14850								
		OBS	1100	0400	34950	2777			14850								
		STD	1200	0394	3495	2777	0004480	0872	14864								
		OBS	1200	0394	34948	2777			14864								
		STD	1300	0393	3495	2778	0004514	0917	14881								
		OBS	1300	0393	34954	2778			14881								
		STD	1400	0384	3496	2779	0004473	0962	14894								
		OBS	1400	0384	34956	2779			14894								
		OBS	1463	0382	34956	2779			14904								

REFERENCE CTD CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S			DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER		
					MARSEN SQUARE		STATION TIME (GMT)			CRUISE NO.	STATION NUMBER	DIR.			HGT PER SEA	TYPE	AMT						
					10"	1"	MO	DAY HR. 1/10															
318081	CO	4419 N	04733 W	149	47	06	01	182	1969	IIP	10572	3749	15	27	3	3		X6	0	6		0109	
				WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS									
				COLOR CODE		TRANS. UNIT		DIR.		SPEED OR FORCE						DRY BULB		WET BULB					
				DT	SD	19	S03	993	10	09	7					24							
MESSAGE TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta \sigma_t$ OBS. - 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	S C						
182		STD	0000	0720	3344	2618	0018422	0000	14778														
		OBS	0000	0720	33437	2618			14778														
004		STD	0010	0717	3344	2619	0018397	0018	14778														
		OBS	0010	0717	33437	2619			14778														
		STD	0020	0715	3344	2619	0018385	0037	14779														
		OBS	0020	0715	33437	2619			14779														
		STD	0030	0635	3344	2630	0017346	0055	14749														
		OBS	0030	0635	33442	2630			14749														
		STD	0050	0475	3384	2680	0012576	0085	14693														
		OBS	0050	0475	33837	2680			14693														
		STD	0075	0735	3448	2698	0010993	0114	14810														
		OBS	0075	0735	34477	2698			14810														
		STD	0100	0670	3452	2710	0009860	0140	14789														
		OBS	0100	0670	34518	2710			14789														
		STD	0125	0620	3446	2712	0009711	0165	14772														
		OBS	0125	0620	34457	2712			14772														
		STD	0150	0575	3450	2721	0008892	0188	14759														
		OBS	0150	0575	34497	2721			14759														
		STD	0200	0395	3436	2731	0007947	0230	14691														
		OBS	0200	0395	34362	2731			14691														
		STD	0250	0430	3464	2749	0006264	0265	14717														
		OBS	0250	0430	34642	2749			14717														
		STD	0300	0455	3473	2753	0005970	0296	14737														
		OBS	0300	0455	34725	2753			14737														
		STD	0400	0498	3493	2764	0005088	0351	14774														
		OBS	0400	0498	34925	2764			14774														
		STD	0500	0490	3498	2769	0004738	0400	14788														
		OBS	0500	0490	34975	2769			14788														
		STD	0600	0457	3496	2772	0004544	0447	14791														
		OBS	0600	0457	34963	2772			14791														
		STD	0700	0443	3496	2773	0004498	0492	14802														
		OBS	0700	0443	34961	2773			14802														
		STD	0800	0435	3498	2775	0004386	0536	14815														
		OBS	0800	0435	34977	2775			14815														
		STD	0900	0413	3496	2776	0004360	0580	14822														
		OBS	0900	0413	34958	2776			14822														
		STD	1000	0408	3496	2777	0004365	0624	14837														
		OBS	1000	0408	34962	2777			14837														
		STD	1100	0399	3496	2777	0004392	0668	14850														
		OBS	1100	0399	34956	2777			14850														
		STD	1200	0391	3495	2778	0004406	0712	14863														
		OBS	1200	0391	34953	2778			14863														
		STD	1300	0387	3496	2779	0004393	0756	14878														
		OBS	1300	0387	34960	2779			14878														
		STD	1400	0375	3495	2779	0004401	0800	14890														
		OBS	1400	0375	34950	2779			14890														
		STD	1500	0372	3495	2780	0004418	0844	14906														
		OBS	1500	0372	34954	2780			14906														

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DEPTH METER	MARSOEN 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./10		CRUISE NO.	STATION NUMBER			DIR.	HGT PER	SEA		TYPE	AMT	
318081	CO	4428 N	04756 W	149	47	06	01	204	1969	11P	10573	3566	15	30	3	4		X2	0	6	0110
					WATER			WIND		BARO- METER (mbs)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. (m)	DIR.	DRY BULB	WET BULB												
					DT	SD	05	506	966	09	07	7	28								

MESSNGR 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 ₂ -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 CL
		STD	0000	0820	3367	2622	0018077	0000	14820								
	204	OBS	0000	0820	33667	2622			14820								
		STD	0010	0800	3367	2625	0017811	0018	14814								
		OBS	0010	0800	33667	2625			14814								
		STD	0020	0770	3362	2626	0017731	0036	14803								
	003	OBS	0020	0770	33624	2626			14803								
		STD	0030	0735	3376	2641	0016281	0053	14793								
		OBS	0030	0735	33757	2641			14793								
		STD	0050	0850	3462	2692	0011547	0081	14852								
		OBS	0050	0850	34617	2692			14852								
		STD	0075	0964	3495	2699	0010877	0109	14902								
		OBS	0075	0964	34952	2699			14902								
		OBS	0093	0883	34819	2702			14874								
		STD	0100	0925	3496	2706	0010272	0135	14892								
		OBS	0100	0925	34957	2706			14892								
		STD	0125	0865	3485	2707	0010210	0161	14872								
		OBS	0125	0865	34847	2707			14872								
		STD	0150	0715	3456	2707	0010247	0186	14815								
		OBS	0150	0715	34557	2707			14815								
		OBS	0175	0675	34732	2726			14806								
		STD	0200	0345	3426	2727	0008240	0232	14668								
		OBS	0200	0345	34257	2727			14668								
		STD	0250	0275	3436	2742	0006874	0270	14648								
		OBS	0250	0275	34357	2742			14648								
		OBS	0288	0514	34822	2754			14761								
		STD	0300	0463	3476	2755	0005821	0302	14741								
		OBS	0300	0463	34757	2755			14741								
		OBS	0327	0612	35017	2757			14810								
		STD	0400	0510	3495	2765	0005038	0356	14779								
		OBS	0400	0510	34951	2765			14779								
		STD	0500	0519	3501	2768	0004810	0405	14800								
		OBS	0500	0519	35013	2768			14800								
		STD	0600	0473	3499	2772	0004550	0452	14798								
		OBS	0600	0473	34988	2772			14798								
		STD	0700	0445	3498	2774	0004403	0497	14803								
		OBS	0700	0445	34977	2774			14803								
		STD	0800	0424	3497	2775	0004342	0541	14810								
		OBS	0800	0424	34965	2775			14810								
		STD	0900	0408	3496	2776	0004314	0584	14820								
		OBS	0900	0408	34956	2776			14820								
		STD	1000	0394	3494	2777	0004350	0627	14831								
		OBS	1000	0394	34941	2777			14831								
		STD	1100	0388	3494	2777	0004368	0671	14845								
		OBS	1100	0388	34941	2777			14845								
		STD	1200	0381	3494	2778	0004377	0715	14859								
		OBS	1200	0381	34940	2778			14859								
		STD	1300	0378	3494	2778	0004427	0759	14874								
		OBS	1300	0378	34940	2778			14874								
		STD	1400	0375	3495	2779	0004416	0803	14890								
		OBS	1400	0375	34948	2779			14890								
		STD	1500	0368	3495	2780	0004396	0847	14904								
		OBS	1500	0368	34950	2780			14904								

REFERENCE CITY CODE	SHIP NO.	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH INCHES	MARSSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	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	AMT		
318081	CO		4432 N	048075W		149	48	06	01	226	1969	IIP	10574	3475	15	30	2	4		X2	0	6		0111
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTH		SPECIAL OBSERVATIONS						
						COLOR CODE		TRANS. MM		DIR.		SPEED OF FORCE		DRY BULB		WET BULB								
						DT		SD		02		S07		963		09		08		7		24		
MESSENGER TIME HR 1/10	CAS NO.	CARGO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY-20°		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	Si O ₄ -Si μg - at/l	pH	S C C				
		STD	0000	1055	3444	2644		0016009		0000		14917												
226		OBS	0000	1055	34437	2644						14917												
		STD	0010	1075	3450	2645		0015903		0016		14926												
		OBS	0010	1075	34500	2645						14926												
		STD	0020	1079	3455	2648		0015632		0032		14930												
005		OBS	0020	1079	34549	2648						14930												
		STD	0030	1083	3456	2648		0015627		0047		14933												
		OBS	0030	1083	34562	2648						14933												
		STD	0050	0937	3488	2698		0010950		0074		14887												
		OBS	0050	0937	34877	2698						14887												
		STD	0075	0952	3501	2706		0010278		0100		14899												
		OBS	0075	0952	35007	2706						14899												
		STD	0100	0853	3484	2708		0010070		0126		14864												
		OBS	0100	0853	34835	2708						14864												
		STD	0125	0850	3486	2710		0009925		0151		14867												
		OBS	0125	0850	34855	2710						14867												
		STD	0150	0570	3450	2722		0008802		0174		14757												
		OBS	0150	0570	34501	2722						14757												
		STD	0200	0668	3494	2743		0006869		0213		14810												
		OBS	0200	0668	34937	2743						14810												
		STD	0250	0695	3502	2746		0006734		0247		14830												
		OBS	0250	0695	35015	2746						14830												
		STD	0300	0637	3500	2753		0006113		0280		14815												
		OBS	0300	0637	35004	2753						14815												
		STD	0400	0559	3502	2764		0005166		0336		14800												
		OBS	0400	0559	35015	2764						14800												
		STD	0500	0507	3500	2768		0004796		0386		14795												
		OBS	0500	0507	34995	2768						14795												
		STD	0600	0472	3499	2772		0004530		0432		14797												
		OBS	0600	0472	34989	2772						14797												
		STD	0700	0451	3499	2774		0004401		0477		14805												
		OBS	0700	0451	34987	2774						14805												
		STD	0800	0432	3498	2776		0004342		0521		14814												
		OBS	0800	0432	34978	2776						14814												
		STD	0900	0417	3498	2777		0004283		0564		14824												
		OBS	0900	0417	34975	2777						14824												
		STD	1000	0406	3497	2777		0004319		0607		14836												
		OBS	1000	0406	34965	2777						14836												
		STD	1100	0397	3497	2778		0004301		0650		14849												
		OBS	1100	0397	34965	2778						14849												
		STD	1200	0389	3497	2779		0004293		0693		14862												
		OBS	1200	0389	34965	2779						14862												
		STD	1300	0384	3497	2780		0004319		0736		14877												
		OBS	1300	0384	34965	2780						14877												
		STD	1400	0377	3496	2780		0004331		0779		14891												
		OBS	1400	0377	34963	2780						14891												
		STD	1500	0370	3496	2781		0004334		0823		14905												
		OBS	1500	0370	34962	2781						14905												

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	PORT CODE	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	ID. NO.					10"	1"	MO	DAY		HR./10	CRUISE NO.			STATION NUMBER	DIR	HGT		PER	SEA		TYPE
318081		CO	44299N	048205W		149	48	06	02	001	1969	IIP 10575	3475	15	27	3	4		X2	0	6	0112
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS										
COLOR CODE	TRANS. CODE	DIR.	SPEED OR FORCE	DRY BULB	WET BULB																	
DT	SD	35	S04	990	06	05	7	24														

MESSAGE TIME NR 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 - ol/l	TOTAL-P μg - ol/l	NO ₃ -N μg - ol/l	NO ₂ -N μg - ol/l	SiO ₄ -Si μg - ol/l	pH	2 CODE
		STD	0000	0425	3220	2556	0024353	0000	14641								
001		OBS	0000	0425	32198	2556			14641								
		STD	0010	0368	3314	2637	0016696	0021	14632								
		OBS	0010	0368	33144	2637			14632								
		STD	0020	0527	3358	2654	0015053	0036	14706								
006		OBS	0020	0527	33578	2654			14706								
		STD	0030	0655	3422	2689	0011793	0050	14767								
		OBS	0030	0655	34219	2689			14767								
		STD	0050	0660	3444	2705	0010222	0072	14776								
		OBS	0050	0660	34442	2705			14776								
		STD	0075	0502	3426	2711	0009748	0097	14713								
		OBS	0075	0502	34257	2711			14713								
		STD	0100	0558	3458	2729	0008026	0119	14745								
		OBS	0100	0558	34577	2729			14745								
		STD	0125	0553	3455	2728	0008200	0139	14746								
		OBS	0125	0553	34550	2728			14746								
		STD	0150	0505	3462	2739	0007173	0159	14732								
		OBS	0150	0505	34617	2739			14732								
		STD	0200	0500	3474	2749	0006278	0192	14740								
		OBS	0200	0500	34737	2749			14740								
		STD	0250	0472	3479	2756	0005628	0222	14737								
		OBS	0250	0472	34789	2756			14737								
		STD	0300	0355	3471	2762	0005005	0248	14695								
		OBS	0300	0355	34712	2762			14695								
		STD	0400	0414	3488	2770	0004469	0296	14739								
		OBS	0400	0414	34879	2770			14739								
		STD	0500	0429	3493	2772	0004335	0340	14762								
		OBS	0500	0429	34933	2772			14762								
		STD	0600	0411	3493	2774	0004260	0383	14771								
		OBS	0600	0411	34929	2774			14771								
		STD	0700	0401	3493	2775	0004256	0425	14784								
		OBS	0700	0401	34927	2775			14784								
		STD	0800	0393	3493	2776	0004257	0468	14797								
		OBS	0800	0393	34927	2776			14797								
		STD	0900	0382	3492	2776	0004301	0511	14809								
		OBS	0900	0382	34916	2776			14809								
		STD	1000	0379	3493	2777	0004273	0554	14824								
		OBS	1000	0379	34927	2777			14824								
		STD	1100	0376	3493	2777	0004332	0597	14840								
		OBS	1100	0376	34926	2777			14840								
		STD	1200	0375	3494	2778	0004325	0640	14856								
		OBS	1200	0375	34937	2778			14856								
		STD	1300	0372	3494	2779	0004352	0683	14872								
		OBS	1300	0372	34940	2779			14872								
		STD	1400	0369	3495	2780	0004347	0727	14887								
		OBS	1400	0369	34947	2780			14887								
		STD	1500	0365	3495	2781	0004342	0770	14903								
		OBS	1500	0365	34952	2781			14903								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	WAVE INDIC	MARSOEN 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	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	44315N	048365W		149	48	06	02	023	1969	IIP	10576	2758	15	27	3	4		X2	0	6	0113
		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	VIS. CODE															
		DT	SD	00	S00	986	05	04	7	24													
MESSENGER TIME OF HR. 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-310?	Σ Δ σ 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	SiO ₄ -Si μg - ml/l	pH	S CC						
		STD	0000	0304	3312	2640	0016326	0000	14602														
023		OBS	0000	0304	33118	2640			14602														
		STD	0010	0269	3336	2662	0014237	0015	14592														
		OBS	0010	0269	33357	2662			14592														
		STD	0020	0255	3351	2676	0012996	0029	14590														
005		OBS	0020	0255	33507	2676			14590														
		STD	0030	0215	3380	2702	0010497	0041	14578														
		OBS	0030	0215	33797	2702			14578														
		STD	0050	0142	3400	2723	0008468	0060	14551														
		OBS	0050	0142	33997	2723			14551														
		STD	0075	0195	3414	2731	0007791	0080	14581														
		OBS	0075	0195	34137	2731			14581														
		STD	0100	0224	3437	2747	0006279	0098	14601														
		OBS	0100	0224	34368	2747			14601														
		STD	0125	0286	3451	2753	0005763	0113	14634														
		OBS	0125	0286	34507	2753			14634														
		STD	0150	0318	3461	2758	0005324	0126	14653														
		OBS	0150	0318	34606	2758			14653														
		STD	0200	0434	3482	2763	0004946	0152	14713														
		OBS	0200	0434	34817	2763			14713														
		STD	0250	0419	3484	2766	0004657	0176	14716														
		OBS	0250	0419	34841	2766			14716														
		STD	0300	0407	3486	2769	0004459	0199	14719														
		OBS	0300	0407	34857	2769			14719														
		STD	0400	0400	3488	2771	0004309	0243	14733														
		OBS	0400	0400	34880	2771			14733														
		STD	0500	0401	3490	2773	0004237	0285	14750														
		OBS	0500	0401	34904	2773			14750														
		STD	0600	0398	3491	2774	0004269	0328	14766														
		OBS	0600	0398	34908	2774			14766														
		STD	0700	0384	3491	2775	0004226	0370	14776														
		OBS	0700	0384	34905	2775			14776														
		STD	0800	0380	3491	2775	0004270	0413	14791														
		OBS	0800	0380	34905	2775			14791														
		STD	0900	0376	3491	2776	0004312	0456	14806														
		OBS	0900	0376	34905	2776			14806														
		STD	1000	0375	3491	2776	0004336	0499	14822														
		OBS	1000	0375	34912	2776			14822														
		STD	1100	0372	3492	2777	0004357	0543	14838														
		OBS	1100	0372	34916	2777			14838														
		STD	1200	0373	3493	2778	0004360	0586	14855														
		OBS	1200	0373	34929	2778			14855														
		STD	1300	0374	3494	2778	0004399	0630	14873														
		OBS	1300	0374	34937	2778			14873														
		STD	1400	0371	3494	2779	0004424	0674	14888														
		OBS	1400	0371	34940	2779			14888														
		STD	1500	0369	3495	2780	0004445	0718	14904														
		OBS	1500	0369	34945	2780			14904														

REFERENCE CITY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	NOOC STATION NUMBER	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAR. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
					10°	1°	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGH	PER		SEA	TYPE	
318081	CO	4434 N	04850 W	149	48	06	02	043	1969	IIP	10577	1994	15	22	2	2		X2	0 6		0114
				WATER		WIND		BARO- METER mbars	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS								
				COLOR CODE	TRANS. mm	DIR.	SPEED OF FORCE		DRY BULB	WET BULB											
				DT	SD	27	507	000	05	04	7	24									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	Σ Δ ρ OYN. 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 C
		STD	0000	0259	3281	2620	0018294	0000	14579								
	043	OBS	0000	0259	32810	2620			14579								
		STD	0010	0185	3283	2627	0017629	0018	14548								
		OBS	0010	0185	32827	2627			14548								
		STD	0020	0165	3288	2632	0017116	0035	14541								
	002	OBS	0020	0165	32877	2632			14541								
		STD	0030	0150	3294	2638	0016563	0052	14537								
		OBS	0030	0150	32937	2638			14537								
		STD	0050	-0024	3344	2688	0011814	0081	14468								
		OBS	0050	-0024	33436	2688			14468								
		STD	0075	0024	3366	2703	0010353	0108	14498								
		OBS	0075	0024	33657	2703			14498								
		STD	0100	0047	3383	2716	0009180	0133	14515								
		OBS	0100	0047	33827	2716			14515								
		STD	0125	0088	3406	2732	0007637	0154	14541								
		OBS	0125	0088	34062	2732			14541								
		STD	0150	0149	3420	2739	0006973	0172	14574								
		OBS	0150	0149	34204	2739			14574								
		STD	0200	0214	3438	2749	0006140	0205	14613								
		OBS	0200	0214	34382	2749			14613								
		STD	0250	0281	3457	2758	0005334	0233	14653								
		OBS	0250	0281	34569	2758			14653								
		STD	0300	0370	3483	2771	0004259	0257	14703								
		OBS	0300	0370	34832	2771			14703								
		STD	0400	0405	3487	2770	0004460	0301	14735								
		OBS	0400	0405	34867	2770			14735								
		STD	0500	0404	3490	2772	0004315	0345	14751								
		OBS	0500	0404	34898	2772			14751								
		STD	0600	0401	3491	2773	0004325	0388	14767								
		OBS	0600	0401	34905	2773			14767								
		STD	0700	0394	3491	2774	0004302	0431	14780								
		OBS	0700	0394	34910	2774			14780								
		STD	0800	0388	3491	2775	0004325	0474	14795								
		OBS	0800	0388	34910	2775			14795								
		STD	0900	0384	3491	2775	0004362	0518	14810								
		OBS	0900	0384	34911	2775			14810								
		STD	1000	0383	3491	2775	0004439	0562	14826								
		OBS	1000	0383	34911	2775			14826								
		STD	1100	0381	3492	2776	0004459	0606	14842								
		OBS	1100	0381	34917	2776			14842								
		STD	1200	0386	3494	2777	0004469	0651	14861								
		OBS	1200	0386	34936	2777			14861								
		STD	1300	0372	3492	2778	0004469	0696	14872								
		OBS	1300	0372	34924	2778			14872								
		STD	1400	0370	3493	2778	0004506	0740	14888								
		OBS	1400	0370	34927	2778			14888								
		STD	1500	0372	3494	2779	0004506	0786	14905								
		OBS	1500	0372	34942	2779			14905								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT FATH	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
								CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		
318081	CO	4436 N	04905 W	149	49	06 02 059	1969	11P	10578	0357	03	27	2	2		X2	0115
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE							
				DT	SD	27	S05	997	07	06	6	13					
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{at/l}$	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	S C
		STD	0000	0282	3286	2621	0018120	0000	14589								
059		OBS	0000	0282	32857	2621			14589								
		STD	0010	0272	3286	2622	0018044	0018	14586								
		OBS	0010	0272	32857	2622			14586								
		STD	0020	0263	3286	2623	0017939	0036	14584								
002		OBS	0020	0263	32862	2623			14584								
		STD	0030	0240	3285	2624	0017878	0054	14576								
		OBS	0030	0240	32847	2624			14576								
		STD	0050	0041	3312	2659	0014520	0086	14494								
		OBS	0050	0041	33122	2659			14494								
		STD	0075	-0007	3325	2672	0013288	0121	14478								
		OBS	0075	-0007	33252	2672			14478								
		STD	0100	-0006	3335	2680	0012539	0153	14484								
		OBS	0100	-0006	33350	2680			14484								
		STD	0125	0034	3356	2695	0011107	0183	14509								
		OBS	0125	0034	33564	2695			14509								
		STD	0150	0052	3367	2703	0010391	0210	14523								
		OBS	0150	0052	33671	2703			14523								
		STD	0200	0099	3390	2718	0008966	0258	14556								
		OBS	0200	0099	33897	2718			14556								
		STD	0250	0156	3418	2737	0007256	0499	14593								
		OBS	0250	0156	34177	2737			14593								
		STD	0300	0227	3438	2748	0006280	0333	14635								
		OBS	0300	0227	34384	2748			14635								
		OBS	0335	0334	34577	2754			14690								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT FATH	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
								CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		
318081	CO	4440 N	04920 W	149	49	06 02 072	1969	11P	10579	0060	00	27	2	4		X2	0116
				WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS			
				COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE							
				DT	SD	27	S10	000	06	05	7	05					
MESSAGE TIME HR 1/10	CAS 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 $\mu\text{g} - \text{at/l}$	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	S C
		STD	0000	0395	3282	2608	0019412	0000	14637								
072		OBS	0000	0395	32816	2608			14637								
		STD	0010	0393	3282	2609	0019347	0019	14638								
		OBS	0010	0393	32823	2609			14638								
		STD	0020	0350	3280	2611	0019157	0039	14621								
000		OBS	0020	0350	32797	2611			14621								
		STD	0030	0084	3307	2653	0015159	0056	14509								
		OBS	0030	0084	33069	2653			14509								
		STD	0050	0031	3351	2691	0011535	0082	14495								
		OBS	0050	0031	33507	2691			14495								

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

318081	CO	4310 N	05020 W	150	30	06	03 030	1969	IIP	10580	0075	00	32	4	4	X2	0117
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WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
CDLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB			

DT	SO	32	S16	159	06	04	7	05		
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Delta \rho$ 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	0667	3260	2560	0023980	0000	14746								
	030	OBS	0000	0667	32602	2560			14746								
		STD	0010	0667	3260	2560	0023985	0024	14748								
		OBS	0010	0667	32603	2560			14748								
		STD	0020	0666	3261	2560	0023948	0048	14749								
	000	OBS	0020	0666	32608	2560			14749								
		STD	0030	0437	3275	2598	0020335	0070	14659								
		OBS	0030	0437	32750	2598			14659								
		STD	0050	0139	3326	2664	0014041	0104	14540								
		OBS	0050	0139	33260	2664			14540								

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

318081	CO	43008N	050208W	150	30	06	03 040	1969	IIP	10581	0113	01	32	3	3	X2	0118
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WATER		WIND		BARO-METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
CDLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB			

DT	SO	32	S20	169	05	03	7	07		
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MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-210°	$\Delta \rho$ 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	0678	3281	2575	0022570	0000	14753								
	040	OBS	0000	0678	32809	2575			14753								
		STD	0010	0678	3281	2575	0022568	0023	14755								
		OBS	0010	0678	32811	2575			14755								
		STD	0020	0657	3279	2576	0022476	0045	14748								
	000	OBS	0020	0657	32790	2576			14748								
		STD	0030	0272	3284	2621	0018195	0065	14590								
		OBS	0030	0272	32838	2621			14590								
		STD	0050	0022	3324	2670	0013532	0097	14487								
		OBS	0050	0022	33239	2670			14487								
		STD	0075	0009	3332	2677	0012815	0130	14486								
		OBS	0075	0009	33324	2677			14486								
		OBS	0085	0006	33348	2679			14487								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT 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		NDDC STATION NUMBER
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
318081		CO	42500N	05020 W	150	20	06	03	054	1969	IIP	10582	1191	12	32	3	3		X2	0	6	0119
						WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY RULR	WET RULR										
						DT	SD	32	S16		169	05					04	7	26			

MESSING 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 $\mu\text{g} \cdot \text{ml}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{ml}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{ml}^{-1}$	SIO ₄ -Si $\mu\text{g} \cdot \text{ml}^{-1}$	pH	S CC
		STD	0000	0577	3290	2594	0020714	0000	14714								
	054	OBS	0000	0577	32895	2594			14714								
		STD	0010	0575	3290	2595	0020680	0021	14714								
		OBS	0010	0575	32898	2595			14714								
		STD	0020	0479	3292	2608	0019453	0041	14677								
	003	OBS	0020	0479	32923	2608			14677								
		STD	0030	0286	3296	2629	0017386	0059	14597								
		OBS	0030	0286	32960	2629			14597								
		STD	0050	0029	3330	2674	0013133	0090	14491								
		OBS	0050	0029	33296	2674			14491								
		OBS	0060	-0006	33430	2686			14478								
		STD	0075	0072	3373	2706	0010060	0119	14520								
		OBS	0075	0072	33730	2706			14520								
		OBS	0082	0295	33956	2708			14623								
		STD	0100	0383	3407	2708	0009971	0144	14665								
		OBS	0100	0383	34065	2708			14665								
		STD	0125	0447	3429	2719	0008956	0167	14699								
		OBS	0125	0447	34290	2719			14699								
		OBS	0147	0375	34390	2735			14674								
		STD	0150	0437	3447	2735	0007504	0188	14702								
		OBS	0150	0437	34473	2735			14702								
		OBS	0156	0512	34580	2735			14735								
		STD	0200	0300	3441	2744	0006646	0223	14651								
		OBS	0200	0300	34413	2744			14651								
		STD	0250	0284	3447	2750	0006120	0255	14653								
		OBS	0250	0284	34468	2750			14653								
		STD	0300	0314	3454	2753	0005900	0285	14675								
		OBS	0300	0314	34539	2753			14675								
		STD	0400	0386	3481	2767	0004718	0338	14726								
		OBS	0400	0386	34805	2767			14726								
		OBS	0435	0433	34900	2769			14753								
		STD	0500	0405	3488	2771	0004475	0384	14751								
		OBS	0500	0405	34878	2771			14751								
		STD	0600	0400	3488	2771	0004485	0429	14766								
		OBS	0600	0400	34882	2771			14766								
		STD	0700	0396	3489	2772	0004474	0474	14781								
		OBS	0700	0396	34890	2772			14781								
		STD	0800	0393	3490	2773	0004495	0519	14796								
		OBS	0800	0393	34895	2773			14796								
		STD	0900	0389	3490	2774	0004502	0564	14811								
		OBS	0900	0389	34900	2774			14811								
		STD	1000	0385	3490	2775	0004515	0609	14827								
		OBS	1000	0385	34904	2775			14827								
		STD	1100	0382	3491	2775	0004538	0654	14842								
		OBS	1100	0382	34908	2775			14842								
		OBS	1190	0382	34910	2775			14857								

REFERENCE	SHIP CTRY CODE	SHIP NO.	SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY HR./10	MARSOEN 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
										CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE	
318081	CO			4240 N	050208W	150	20	06 03 071	1969	IIP	10583	2395	15	32	3	3		X2	0 6	0120
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbars)	DRY BULB	WET BULB	VIS. CODE								
					DT	SD	33	S10	261	07	06	7	25							

MESSNGR TIME OF NR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Delta \rho$ CYN. M. $\times 10^3$	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 C
071		STD	0000	0517	3302	2611	0019109	0000	14691								
		OBS	0000	0517	33020	2611			14691								
		STD	0010	0518	3302	2611	0019114	0019	14693								
004		OBS	0010	0518	33022	2611			14693								
		STD	0020	0559	3329	2627	0017571	0037	14715								
		OBS	0020	0559	33290	2627			14715								
		STD	0030	0949	3453	2669	0013672	0053	14884								
		OBS	0030	0949	34529	2669			14884								
		STD	0050	1087	3521	2698	0010979	0078	14946								
		OBS	0050	1087	35208	2698			14946								
		STD	0075	0999	3501	2698	0011016	0105	14916								
		OBS	0075	0999	35010	2698			14916								
		STD	0100	0792	3457	2697	0011142	0133	14837								
		OBS	0100	0792	34570	2697			14837								
		STD	0125	0672	3448	2707	0010207	0160	14793								
		OBS	0125	0672	34480	2707			14793								
		STD	0150	0797	3475	2710	0009967	0185	14849								
		OBS	0150	0797	34750	2710			14849								
		STD	0200	0644	3447	2710	0010027	0235	14794								
		OBS	0200	0644	34470	2710			14794								
		STD	0250	0351	3443	2740	0007046	0277	14681								
		OBS	0250	0351	34429	2740			14681								
		STD	0300	0427	3464	2749	0006282	0311	14724								
		OBS	0300	0427	34642	2749			14724								
		OBS	0311	0407	34632	2751			14718								
		STD	0400	0458	3486	2763	0005142	0368	14757								
		OBS	0400	0458	34855	2763			14757								
		STD	0500	0464	3494	2769	0004658	0417	14777								
		OBS	0500	0464	34944	2769			14777								
		STD	0600	0451	3495	2772	0004539	0463	14788								
		OBS	0600	0451	34954	2772			14788								
		STD	0700	0405	3491	2773	0004414	0508	14785								
		OBS	0700	0405	34912	2773			14785								
		STD	0800	0401	3493	2775	0004329	0551	14800								
		OBS	0800	0401	34930	2775			14800								
		STD	0900	0426	3497	2776	0004414	0595	14828								
		OBS	0900	0426	34972	2776			14828								
		STD	1000	0412	3497	2777	0004370	0639	14839								
		OBS	1000	0412	34968	2777			14839								
		STD	1100	0400	3496	2777	0004412	0683	14850								
		OBS	1100	0400	34955	2777			14850								
		STD	1200	0392	3496	2778	0004382	0727	14864								
		OBS	1200	0392	34958	2778			14864								
		STD	1300	0393	3496	2778	0004477	0771	14881								
		OBS	1300	0393	34959	2778			14881								
		STD	1400	0378	3495	2779	0004447	0816	14891								
		OBS	1400	0378	34949	2779			14891								
		STD	1500	0365	3494	2779	0004452	0860	14902								
		OBS	1500	0365	34937	2779			14902								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	HAUSDEN SQUARE	MARSDEN SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		MOOC STATION NUMBER
CTRY CODE	ID. NO.					10°	1°	MD	OAT	HR.1/10	CAUSE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318081	CO	4230 N	05019 W	150	20	06	03	088	1969	IIP	10584	5019	15	35	3	3		X2	0	6		0121		
					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														
DT	SD	32	S10	193	06	06	7	25																
MESSENGER TIME HR 1/10	CASST 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 CUT							
		STD	0000	0849	3333	2591	0021005	0000	14826															
088		OBS	0000	0849	33329	2591			14826															
		STD	0010	1045	3388	2602	0020009	0021	14907															
		OBS	0010	1045	33876	2602			14907															
		STD	0020	0947	3430	2651	0015345	0038	14879															
003		OBS	0020	0947	34296	2651			14879															
		OBS	0025	0862	34320	2667			14848															
		STD	0030	1027	3477	2675	0013151	0052	14916															
		OBS	0030	1027	34770	2675			14916															
		STD	0050	1129	3520	2689	0011800	0077	14961															
		OBS	0050	1129	35196	2689			14961															
		STD	0075	1154	3531	2693	0011489	0106	14975															
		OBS	0075	1154	35307	2693			14975															
		STD	0100	1084	3523	2700	0010884	0134	14953															
		OBS	0100	1084	35230	2700			14953															
		STD	0125	0887	3484	2703	0010597	0161	14881															
		OBS	0125	0887	34840	2703			14881															
		STD	0150	0907	3513	2723	0008814	0186	14896															
		OBS	0150	0907	35130	2723			14896															
		STD	0200	0845	3501	2723	0008882	0230	14879															
		OBS	0200	0845	35005	2723			14879															
		STD	0250	0662	3467	2723	0008850	0274	14812															
		OBS	0250	0662	34670	2723			14812															
		STD	0300	0658	3492	2743	0007031	0314	14822															
		OBS	0300	0658	34918	2743			14822															
		STD	0400	0585	3496	2756	0005876	0378	14810															
		OBS	0400	0585	34964	2756			14810															
		STD	0500	0530	3497	2764	0005258	0434	14804															
		OBS	0500	0530	34971	2764			14804															
		STD	0600	0429	3488	2768	0004831	0484	14778															
		OBS	0600	0429	34880	2768			14778															
		STD	0700	0433	3493	2772	0004608	0532	14797															
		OBS	0700	0433	34930	2772			14797															
		STD	0800	0421	3492	2772	0004632	0578	14808															
		OBS	0800	0421	34921	2772			14808															
		STD	0900	0424	3496	2775	0004479	0623	14827															
		OBS	0900	0424	34960	2775			14827															
		STD	1000	0420	3496	2775	0004557	0669	14842															
		OBS	1000	0420	34956	2775			14842															
		STD	1100	0414	3497	2777	0004483	0714	14856															
		OBS	1100	0414	34969	2777			14856															
		STD	1200	0404	3497	2778	0004444	0758	14869															
		OBS	1200	0404	34970	2778			14869															
		STD	1300	0397	3497	2779	0004447	0803	14883															
		OBS	1300	0397	34970	2779			14883															
		STD	1400	0393	3497	2779	0004486	0848	14898															
		OBS	1400	0393	34970	2779			14898															
		STD	1500	0384	3597	2860	-0002858	0856	14924															
		OBS	1500	0384	35970	2860			14924															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- TH ER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	IO. NO.					10"	1"	MO		DAY	HR./10			CRUISE NO.	STATION NUMBER	DIR	HGT		PER	SEA	
318081	CO		4210 N	05018 W	150 20	06 03	109	1969	11P	10585	3219	15	33	4	3	X2	0	6		0122	

318081 CO 4210 N 05018 W 150 20 06 03 109 1969 IIP 10585 3219 15 33 4 3 X2 0 6 0122

WATER		WIND		AIR TEMP. °C		SPECIAL	
COLOR	TRANS.	DIR.	SPEED	BARO-	DRY	WET	VIS.
CODE	(m)		OR	METER	BULB	BULB	COOR
			FORCE	(mb)			

DT SD 33 S12 264 10 08 7 24

MESSAGE	CASE	CARD	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME	Δ D	SOUND	O ₂ ml/l	PO ₄ -P	TOTAL-P	NO ₂ -N	NO ₃ -N	SiO ₄ -Si	pH	SC
TIME	NO.	TYPE					ANOMALY-σ _t	DYN. M.	VELOCITY		μg - at/l	μg - at/l	μg - at/l	μg - at/l	μg - at/l		
HR 1/10								x 10 ³									
		STD	0000	0927	3338	2583	0021755	0000	14856								
109		OBS	0000	0927	33384	2583			14856								
		STD	0010	0941	3387	2619	0018387	0020	14869								
		OBS	0010	0941	33870	2619			14869								
		STD	0020	0847	3401	2645	0015952	0037	14838								
003		OBS	0020	0847	34010	2645			14838								
		STD	0030	0767	3387	2646	0015875	0053	14807								
		OBS	0030	0767	33870	2646			14807								
		STD	0050	0967	3486	2692	0011552	0081	14898								
		OBS	0050	0967	34860	2692			14898								
		STD	0075	1230	3550	2694	0011462	0109	15004								
		OBS	0075	1230	35500	2694			15004								
		STD	0100	1022	3505	2697	0011172	0138	14929								
		OBS	0100	1022	35048	2697			14929								
		STD	0125	0694	3449	2705	0010423	0165	14802								
		OBS	0125	0694	34490	2705			14802								
		STD	0150	0603	3446	2715	0009496	0190	14770								
		OBS	0150	0603	34462	2715			14770								
		STD	0200	0610	3463	2727	0008401	0234	14783								
		OBS	0200	0610	34630	2727			14783								
		STD	0250	0327	3452	2750	0006130	0271	14672								
		OBS	0250	0327	34520	2750			14672								
		STD	0300	0621	3496	2751	0006260	0302	14808								
		OBS	0300	0621	34956	2751			14808								
		STD	0400	0541	3495	2761	0005425	0360	14792								
		OBS	0400	0541	34950	2761			14792								
		STD	0500	0469	3493	2767	0004859	0411	14779								
		OBS	0500	0469	34925	2767			14779								
		STD	0600	0463	3496	2771	0004638	0459	14793								
		OBS	0600	0463	34960	2771			14793								
		STD	0700	0445	3497	2773	0004470	0504	14802								
		OBS	0700	0445	34968	2773			14802								
		STD	0800	0427	3496	2775	0004430	0549	14811								
		OBS	0800	0427	34958	2775			14811								
		STD	0900	0400	3493	2775	0004396	0593	14816								
		OBS	0900	0400	34932	2775			14816								
		STD	1000	0386	3492	2776	0004386	0637	14827								
		OBS	1000	0386	34923	2776			14827								
		STD	1100	0381	3493	2777	0004385	0681	14842								
		OBS	1100	0381	34927	2777			14842								
		STD	1200	0383	3494	2778	0004402	0725	14860								
		OBS	1200	0383	34940	2778			14860								
		STD	1300	0379	3495	2779	0004403	0769	14875								
		OBS	1300	0379	34945	2779			14875								
		STD	1400	0374	3495	2779	0004425	0813	14889								
		OBS	1400	0374	34945	2779			14889								
		STD	1500	0373	3495	2780	0004431	0857	14906								
		OBS	1500	0373	34954	2780			14906								

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METER	MARSOEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'APLS	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	
318081	CO	4150 N	05020 W	150	10	06	03	135	1969	11P	10586		3858	15	34	4	3		X1	0	6	0123
					WATER		WIND		BARO- METER (mbars)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS								
					COLOR CODE		TRANS. (m)	DIR.		DRY BULB	WET BULB											
					DT	SD	29	S14		11	09	7	28									

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. $\times 10^3$	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 $\mu g - ml/l$	SI O ₄ -Si $\mu g - ml/l$	pH	1 C
		STD	0000	0787	3292	2568	0023159	0000	14797								
	135	OBS	0000	0787	32922	2568			14797								
		STD	0010	0767	3294	2572	0022805	0023	14791								
		OBS	0010	0767	32935	2572			14791								
		STD	0020	0647	3303	2596	0020559	0045	14747								
	006	OBS	0020	0647	33030	2596			14747								
		STD	0030	0457	3309	2623	0017980	0064	14672								
		OBS	0030	0457	33090	2623			14672								
		STD	0050	0167	3367	2696	0011096	0093	14558								
		OBS	0050	0167	33673	2696			14558								
		STD	0075	0147	3383	2710	0009774	0119	14555								
		OBS	0075	0147	33830	2710			14555								
		STD	0100	0187	3406	2725	0008323	0142	14580								
		OBS	0100	0187	34060	2725			14580								
		STD	0125	0267	3419	2729	0007988	0162	14621								
		OBS	0125	0267	34190	2729			14621								
		STD	0150	0225	3429	2740	0006922	0181	14609								
		OBS	0150	0225	34287	2740			14609								
		STD	0200	0362	3459	2752	0005890	0213	14680								
		OBS	0200	0362	34592	2752			14680								
		OBS	0241	0470	3427P	2715P											
		STD	0250	0434	3476	2758	0005440	0241	14721								
		OBS	0250	0434	34758	2758			14721								
		OBS	0270	0345	34660	2759			14685								
		STD	0300	0371	3471	2761	0005182	0268	14702								
		OBS	0300	0371	34710	2761			14702								
		STD	0400	0469	3492	2767	0004784	0317	14762								
		OBS	0400	0469	34920	2767			14762								
		OBS	0475	0442	34905	2769			14763								
		STD	0500	0462	3496	2770	0004553	0364	14776								
		OBS	0500	0462	34955	2770			14776								
		OBS	0525	0479	34985	2771			14788								
		STD	0600	0427	3493	2772	0004436	0409	14778								
		OBS	0600	0427	34930	2772			14778								
		STD	0700	0424	3494	2774	0004405	0453	14793								
		OBS	0700	0424	34943	2774			14793								
		STD	0800	0415	3495	2775	0004383	0497	14806								
		OBS	0800	0415	34945	2775			14806								
		STD	0900	0404	3494	2776	0004363	0541	14818								
		OBS	0900	0404	34943	2776			14818								
		STD	1000	0399	3495	2777	0004381	0585	14833								
		OBS	1000	0399	34945	2777			14833								
		STD	1100	0391	3494	2777	0004390	0629	14846								
		OBS	1100	0391	34943	2777			14846								
		STD	1200	0384	3494	2778	0004392	0672	14860								
		OBS	1200	0384	34943	2778			14860								
		STD	1300	0382	3495	2779	0004418	0717	14876								
		OBS	1300	0382	34948	2779			14876								
		STD	1400	0378	3495	2779	0004447	0761	14891								
		OBS	1400	0378	34949	2779			14891								
		STD	1500	0373	3496	2780	0004424	0805	14906								
		OBS	1500	0373	34955	2780			14906								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DAVE NO.	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.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT		
318081		CO	4120 N	05020 W	150	10	06	03	169	1969	IIP	10587		3749	15	34	4	3		X1	0	6	0124	
						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	30	S10	251	11	09	7	28										

MESSENGR TIME HR 1/10	CST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-210°	Σ Δ Δ OYN. 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	SEC
		STD	0000	0822	3293	2564	0023587	0000	14811								
169		OBS	0000	0822	32930	2564			14811								
		STD	0010	0772	3292	2570	0022985	0023	14793								
		OBS	0010	0772	32920	2570			14793								
		STD	0020	0547	3316	2618	0018447	0044	14708								
003		OBS	0020	0547	33155	2618			14708								
		STD	0030	0883	3464	2688	0011832	0059	14861								
		OBS	0030	0883	34640	2688			14861								
		STD	0050	1287	3561	2691	0011643	0083	15020								
		OBS	0050	1287	35613	2691			15020								
		STD	0075	1220	3546	2692	0011606	0112	15000								
		OBS	0075	1220	35455	2692			15000								
		STD	0100	1072	3513	2695	0011413	0140	14948								
		OBS	0100	1072	35130	2695			14948								
		STD	0125	0920	3487	2700	0010888	0168	14893								
		OBS	0125	0920	34870	2700			14893								
		STD	0150	0767	3462	2704	0010502	0195	14836								
		OBS	0150	0767	34620	2704			14836								
		STD	0200	0730	3475	2720	0009102	0244	14832								
		OBS	0200	0730	34750	2720			14832								
		STD	0250	0696	3475	2725	0008714	0289	14827								
		OBS	0250	0696	34750	2725			14827								
		OBS	0275	0545	34630	2735			14769								
		STD	0300	0471	3453	2736	0007621	0329	14741								
		OBS	0300	0471	34528	2736			14741								
		OBS	0320	0547	34730	2743			14778								
		STD	0400	0318	3458	2756	0005697	0396	14694								
		OBS	0400	0318	34581	2756			14694								
		OBS	0420	0472	34810	2758			14767								
		STD	0500	0389	3477	2764	0005081	0450	14743								
		OBS	0500	0389	34773	2764			14743								
		STD	0500	0464	3494	2769	0004828	0499	14793								
		OBS	0600	0464	34936	2769			14793								
		OBS	0655	0418	34885	2770			14783								
		STD	0700	0453	3496	2772	0004603	0547	14806								
		OBS	0700	0453	34963	2772			14806								
		STD	0800	0420	3493	2773	0004568	0592	14808								
		OBS	0800	0420	34928	2773			14808								
		STD	0900	0411	3494	2775	0004491	0638	14821								
		OBS	0900	0411	34937	2775			14821								
		STD	1000	0395	3492	2775	0004495	0683	14831								
		OBS	1000	0395	34923	2775			14831								
		STD	1100	0385	3493	2777	0004419	0727	14844								
		OBS	1100	0385	34929	2777			14844								
		STD	1200	0391	3495	2777	0004450	0772	14863								
		OBS	1200	0391	34947	2777			14863								
		STD	1300	0391	3496	2778	0004474	0816	14880								
		OBS	1300	0391	34956	2778			14880								
		STD	1400	0385	3496	2779	0004449	0861	14894								
		OBS	1400	0385	34961	2779			14894								
		STD	1500	0382	3497	2780	0004445	0905	14910								
		OBS	1500	0382	34968	2780			14910								

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARS 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.					MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
10"	1"					10"	1"	10"		1"	10"			1"	10"	1"	10"		1"	10"		1"	
318081		CO	4050 N	05018 W	150	00	06	03	198	1969	IIP	10588	3823	15	34	3	3		X1	0	6		0125
		WATER			WIND			BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB		WET BULB														
		DT	SD	34	S10	257	11	09	8	26													
MESSENGER TIME HR 1/10	CASST OF HO.	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 $\mu\text{g} - \text{dl/l}$	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 COND.						
		STD	0000	1328	3450	2596	0020497	0000	15012														
198		OBS	0000	1328	34495	2596			15012														
		STD	0010	1322	3459	2605	0019726	0020	15013														
		OBS	0010	1322	34588	2605			15013														
		STD	0020	1332	3468	2610	0019271	0040	15019														
003		OBS	0020	1332	34680	2610			15019														
		STD	0030	1369	3492	2621	0018277	0058	15036														
		OBS	0030	1369	34918	2621			15036														
		OBS	0035	1415	35610	2664			15060														
		STD	0050	1247	3529	2674	0013255	0090	15003														
		OBS	0050	1247	35290	2674			15003														
		STD	0075	1278	3557	2690	0011825	0121	15021														
		OBS	0075	1278	35574	2690			15021														
		STD	0100	1264	3554	2690	0011904	0151	15020														
		OBS	0100	1264	35536	2690			15020														
		STD	0125	1260	3554	2691	0011844	0181	15022														
		OBS	0125	1260	35543	2691			15022														
		STD	0150	1262	3555	2691	0011898	0210	15027														
		OBS	0150	1262	35550	2691			15027														
		STD	0200	1248	3553	2693	0011896	0270	15031														
		OBS	0200	1248	35532	2693			15031														
		STD	0250	1251	3554	2693	0012019	0330	15040														
		OBS	0250	1251	35541	2693			15040														
		STD	0300	1202	3542	2693	0012106	0390	15030														
		OBS	0300	1202	35420	2693			15030														
		STD	0400	0895	3508	2721	0009494	0498	14932														
		OBS	0400	0895	35080	2721			14932														
		STD	0500	0632	3482	2739	0007688	0584	14843														
		OBS	0500	0632	34822	2739			14843														
		OBS	0520	0697	34995	2744			14875														
		STD	0600	0547	3485	2752	0006480	0655	14826														
		OBS	0600	0547	34852	2752			14826														
		STD	0700	0525	3497	2764	0005456	0714	14835														
		OBS	0700	0525	34969	2764			14835														
		STD	0800	0494	3498	2769	0005082	0767	14839														
		OBS	0800	0494	34982	2769			14839														
		STD	0900	0475	3500	2773	0004797	0816	14849														
		OBS	0900	0475	35003	2773			14849														
		STD	1000	0444	3498	2774	0004680	0864	14852														
		OBS	1000	0444	34980	2774			14852														
		STD	1100	0425	3497	2776	0004622	0910	14861														
		OBS	1100	0425	34969	2776			14861														
		STD	1200	0417	3497	2777	0004609	0956	14874														
		OBS	1200	0417	34970	2777			14874														
		STD	1300	0405	3497	2778	0004550	1002	14886														
		OBS	1300	0405	34970	2778			14886														
		STD	1400	0399	3497	2779	0004549	1048	14900														
		OBS	1400	0399	34972	2779			14900														
		STD	1500	0390	3498	2780	0004499	1093	14913														
		OBS	1500	0390	34975	2780			14913														

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT METER	MARSEEN 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"	MD	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TPN		AMT		
CTRY CODE	ID. NO.					150	00	06	03	225	1969	IIP	10589	4572	15	34	3	3		X1	0	6	0126		
						WATER		WIND		AIR TEMP. °C		BARO- METER		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS									
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS												
						DT	SD	34	S08	274	11	09	7	24											

MESSAGE TIME HR 1/10	CASE 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	PD 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 C
		STD	0000	1809	3618	2617	0018562	0000	15182								
225		OBS	0000	1809	36177	2617			15182								
		STD	0010	1809	3620	2618	0018466	0019	15183								
		OBS	0010	1809	36195	2618			15183								
004		STD	0020	1822	3637	2628	0017539	0037	15191								
		OBS	0020	1822	36370	2628			15191								
		STD	0030	1828	3649	2636	0016839	0054	15196								
		OBS	0030	1828	36491	2636			15196								
		STD	0050	1797	3649	2644	0016158	0087	15190								
		OBS	0050	1797	36493	2644			15190								
		STD	0075	1772	3648	2649	0015787	0127	15187								
		OBS	0075	1772	36475	2649			15187								
		STD	0100	1753	3645	2651	0015639	0166	15185								
		OBS	0100	1753	36446	2651			15185								
		STD	0125	1738	3644	2654	0015440	0205	15185								
		OBS	0125	1738	36437	2654			15185								
		STD	0150	1723	3642	2657	0015279	0243	15184								
		OBS	0150	1723	36423	2657			15184								
		STD	0200	1714	3642	2659	0015275	0320	15190								
		OBS	0200	1714	36418	2659			15190								
		STD	0250	1703	3641	2660	0015275	0396	15194								
		OBS	0250	1703	36406	2660			15194								
		STD	0300	1690	3639	2662	0015264	0472	15198								
		OBS	0300	1690	36389	2662			15198								
		STD	0400	1428	3584	2679	0013813	0618	15127								
		OBS	0400	1428	35838	2679			15127								
		STD	0500	1264	3559	2694	0012584	0750	15086								
		OBS	0500	1264	35588	2694			15086								
		STD	0600	1059	3533	2712	0010872	0867	15028								
		OBS	0600	1059	35329	2712			15028								
		STD	0700	0847	3511	2731	0009058	0967	14964								
		OBS	0700	0847	35113	2731			14964								
		STD	0800	0667	3501	2750	0007209	1048	14909								
		OBS	0800	0667	35013	2750			14909								
		STD	0900	0548	3498	2762	0005924	1114	14878								
		OBS	0900	0548	34980	2762			14878								
		STD	1000	0504	3500	2769	0005295	1170	14877								
		OBS	1000	0504	35002	2769			14877								
		STD	1100	0494	3504	2773	0005019	1221	14890								
		OBS	1100	0494	35037	2773			14890								
		STD	1200	0465	3502	2775	0004867	1271	14895								
		OBS	1200	0465	35020	2775			14895								
		STD	1300	0436	3500	2777	0004748	1319	14899								
		OBS	1300	0436	34998	2777			14899								
		STD	1400	0423	3499	2778	0004732	1366	14910								
		OBS	1400	0423	34990	2778			14910								
		STD	1500	0410	3498	2778	0004712	1413	14922								
		OBS	1500	0410	34982	2778			14922								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS 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		
CIRY CODE	IO. NO.					10°	1°	MO		DAY	HR.1/10			CRUISE NO.	STATION NUMBER	DIR.		HGS	PER		SEA	TYPE
318081		CO	3950 N	05020 W	114	90	06	04	016	1969	11P	10590	5249	15	34	3	3		X1	0	6	0127
						WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB										
						DT	SD	35	S08	288	13	11	7	24								
MESSENGER TIME HR 1/10	CASST NO.	CARD TYPE	DEPTN (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma_t$ OYN. 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	SEC				
016		STD	0000	1786	3644	2642	0016124		0000	15178												
		OBS	0000	1786	36438	2642				15178												
		STD	0010	1785	3644	2643	0016135		0016	15179												
004		OBS	0010	1785	36438	2643				15179												
		STD	0020	1784	3644	2643	0016147		0032	15181												
		OBS	0020	1784	36438	2643				15181												
		STD	0030	1784	3644	2643	0016181		0048	15182												
		OBS	0030	1784	36438	2643				15182												
		STD	0050	1747	3642	2651	0015531		0080	15175												
		OBS	0050	1747	36418	2651				15175												
		STD	0075	1734	3642	2654	0015301		0119	15175												
		OBS	0075	1734	36420	2654				15175												
		STD	0100	1722	3641	2656	0015159		0157	15175												
		OBS	0100	1722	36413	2656				15175												
		STD	0125	1711	3640	2658	0015099		0195	15176												
		OBS	0125	1711	36398	2658				15176												
		STD	0150	1710	3640	2658	0015160		0232	15180												
		OBS	0150	1710	36398	2658				15180												
		STD	0200	1704	3640	2659	0015189		0308	15186												
		OBS	0200	1704	36398	2659				15186												
		STD	0250	1701	3640	2660	0015287		0384	15194												
		OBS	0250	1701	36398	2660				15194												
		STD	0300	1704	3642	2661	0015400		0461	15203												
		OBS	0300	1704	36415	2661				15203												
		STD	0400	1661	3631	2663	0015504		0616	15205												
		OBS	0400	1661	36309	2663				15205												
		STD	0500	1510	3600	2674	0014696		0767	15171												
		OBS	0500	1510	35998	2674				15171												
		STD	0600	1348	3573	2688	0013496		0908	15132												
		OBS	0600	1348	35731	2688				15132												
		STD	0700	1171	3550	2705	0011931		1035	15086												
		OBS	0700	1171	35500	2705				15086												
		STD	0800	0946	3525	2726	0009874		1144	15019												
		OBS	0800	0946	35253	2726				15019												
		STD	0900	0748	3510	2745	0007957		1233	14959												
		OBS	0900	0748	35098	2745				14959												
		STD	1000	0618	3505	2759	0006526		1305	14924												
		OBS	1000	0618	35049	2759				14924												
		STD	1100	0519	3498	2766	0005774		1367	14900												
		OBS	1100	0519	34980	2766				14900												
		STD	1200	0480	3499	2771	0005280		1422	14900												
		OBS	1200	0480	34991	2771				14900												
		STD	1300	0472	3502	2774	0005082		1474	14914												
		OBS	1300	0472	35018	2774				14914												
		STD	1400	0453	3502	2777	0004900		1524	14923												
		OBS	1400	0453	35022	2777				14923												
		STD	1500	0437	3502	2778	0004827		1573	14933												
		OBS	1500	0437	35016	2778				14933												

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	P 1/10	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
CTRY CODE	ID. NO.					16"	1"	MO	DAY	HR.	1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	39181N	05018 W		114	90	06	04	050		1969	IIP	10591	5303	15	34	3	3		X1	0	6	0128
						WATER		WIND		BARO- METER (mbars)		AIR TEMP. °C		VIS.		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
						COLOR	TRANS.	DIR.	SPEED OR FORCE			DRY BULB	WET BULB											
						DT	SD	36	S06	295		13	11	7	24									

MESSNGR TIME HR 1/10	CAST NO.	CARO 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 C C
		STD	0000	1774	3643	2645	0015901	0000	15175								
050		OBS	0000	1774	36430	2645			15175								
		STD	0010	1774	3643	2645	0015935	0016	15176								
		OBS	0010	1774	36430	2645			15176								
		STD	0020	1774	3643	2645	0015970	0032	15178								
003		OBS	0020	1774	36430	2645			15178								
		STD	0030	1774	3643	2645	0016005	0048	15179								
		OBS	0030	1774	36430	2645			15179								
		STD	0050	1774	3643	2645	0016074	0080	15183								
		OBS	0050	1774	36430	2645			15183								
		STD	0075	1752	3640	2648	0015835	0120	15180								
		OBS	0075	1752	36404	2648			15180								
		STD	0100	1733	3642	2654	0015399	0159	15179								
		OBS	0100	1733	36415	2654			15179								
		STD	0125	1724	3641	2656	0015290	0197	15180								
		OBS	0125	1724	36413	2656			15180								
		STD	0150	1714	3641	2658	0015151	0235	15181								
		OBS	0150	1714	36412	2658			15181								
		STD	0200	1709	3641	2659	0015247	0311	15188								
		OBS	0200	1709	36406	2659			15188								
		STD	0250	1703	3640	2660	0015290	0388	15194								
		OBS	0250	1703	36404	2660			15194								
		STD	0300	1700	3640	2661	0015387	0464	15202								
		OBS	0300	1700	36404	2661			15202								
		STD	0400	1682	3637	2662	0015553	0619	15212								
		OBS	0400	1682	36369	2662			15212								
		STD	0500	1568	3609	2668	0015298	0773	15191								
		OBS	0500	1568	36091	2668			15191								
		STD	0600	1437	3588	2680	0014289	0921	15163								
		OBS	0600	1437	35878	2680			15163								
		STD	0700	1259	3561	2696	0012874	1057	15117								
		OBS	0700	1259	35606	2696			15117								
		STD	0800	1055	3534	2714	0011145	1177	15060								
		OBS	0800	1055	35343	2714			15060								
		STD	0900	0842	3516	2735	0009030	1278	14995								
		OBS	0900	0842	35156	2735			14995								
		STD	1000	0704	3509	2750	0007522	1361	14958								
		OBS	1000	0704	35087	2750			14958								
		STD	1100	0629	3509	2761	0006496	1431	14945								
		OBS	1100	0629	35094	2761			14945								
		STD	1200	0550	3508	2770	0005606	1491	14930								
		OBS	1200	0550	35078	2770			14930								
		STD	1300	0510	3507	2774	0005223	1545	14930								
		OBS	1300	0510	35070	2774			14930								
		STD	1400	0492	3507	2776	0005056	1597	14940								
		OBS	1400	0492	35074	2776			14940								
		STD	1500	0460	3505	2778	0004909	1647	14943								
		OBS	1500	0460	35048	2778			14943								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARSJOEN SQUARE	STATION TIME (GMT)			ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'AMPLES	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
					10°	1°	MO DAY HR. 1/10	CRUISE NO.	STATION NUMBER			OIR.	HGT	PER	SEA	TYPE	AMT	

318081	CO	3850 N	05019 W	114	80	06	04	075	1969	11P	10592	5084	15	35	3	2	X1	0	6	0129
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WATER		WIND		BARO- METER (mbal)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS
COLOR CODE	TRANS (ml)	OIR.	SPEED OR FORCE		DRY BULB	WET BULB			

DT	SD	01	505	305	14	09	7	24	
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MESSNGR 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	S C
		STD	0000	1781	3642	2643	0016116	0000	15176								
	075	OBS	0000	1781	36423	2643			15176								
		STD	0010	1782	3642	2642	0016174	0016	15178								
		OBS	0010	1782	36423	2642			15178								
	002	STD	0020	1782	3642	2642	0016209	0032	15180								
		OBS	0020	1782	36423	2642			15180								
		STD	0030	1782	3642	2642	0016243	0049	15182								
		OBS	0030	1782	36423	2642			15182								
		STD	0050	1782	3643	2643	0016291	0081	15185								
		OBS	0050	1782	36426	2643			15185								
		STD	0075	1737	3641	2652	0015443	0121	15176								
		OBS	0075	1737	36410	2652			15176								
		STD	0100	1725	3641	2655	0015236	0159	15176								
		OBS	0100	1725	36412	2655			15176								
		STD	0125	1718	3640	2656	0015224	0197	15178								
		OBS	0125	1718	36403	2656			15178								
		STD	0150	1714	3640	2657	0015252	0235	15181								
		OBS	0150	1714	36398	2657			15181								
		STD	0200	1714	3642	2658	0015290	0312	15190								
		OBS	0200	1714	36416	2658			15190								
		STD	0250	1706	3640	2659	0015366	0388	15195								
		OBS	0250	1706	36403	2659			15195								
		STD	0300	1702	3640	2660	0015491	0465	15202								
		OBS	0300	1702	36396	2660			15202								
		STD	0400	1694	3639	2661	0015665	0621	15216								
		OBS	0400	1694	36392	2661			15216								
		STD	0500	1594	3613	2665	0015597	0778	15199								
		OBS	0500	1594	36130	2665			15199								
		STD	0600	1454	3590	2679	0014470	0928	15169								
		OBS	0600	1454	35903	2679			15169								
		STD	0700	1294	3565	2693	0013240	1066	15130								
		OBS	0700	1294	35652	2693			15130								
		STD	0800	1076	3535	2711	0011478	1190	15067								
		OBS	0800	1076	35350	2711			15067								
		STD	0900	0867	3516	2731	0009435	1495	15005								
		OBS	0900	0867	35157	2731			15005								
		STD	1000	0706	3507	2749	0007655	1380	14959								
		OBS	1000	0706	35073	2749			14959								
		STD	1100	0583	3503	2762	0006291	1450	14926								
		OBS	1100	0583	35031	2762			14926								
		STD	1200	0518	3501	2768	0005680	1510	14916								
		OBS	1200	0518	35007	2768			14916								
		STD	1300	0488	3501	2772	0005329	1565	14921								
		OBS	1300	0488	35014	2772			14921								
		STD	1400	0461	3501	2775	0005097	1617	14926								
		OBS	1400	0461	35010	2775			14926								
		STD	1500	0441	3500	2776	0004998	1667	14935								
		OBS	1500	0441	35000	2776			14935								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT INDIC	MARSDEN 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	ID. NO.					10"	1"	MO	DAY	HR./10			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318081		CO	3821 N	05023 W		114	80	06	04	100	1969	IIP	10593		5212	15	34	2	2		X1	0	6	0130
						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											
						DT	SD	35	S06	312		15	14	7	24									

MESSENGER TIME HR 1/10	CARD 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	PD ₄ -P $\mu g - \text{ol/l}$	TOTAL-P $\mu g - \text{ol/l}$	NO ₃ -N $\mu g - \text{ol/l}$	NO ₃ -N $\mu g - \text{ol/l}$	SiO ₄ -Si $\mu g - \text{ol/l}$	pH	CL
100	STD	0000	1834	3643	2630	0017334	0000	15192									
	OBS	0000	1834	36428	2630			15192									
	STD	0010	1834	3643	2630	0017354	0017	15193									
	OBS	0010	1834	36430	2630			15193									
002	STD	0020	1834	3643	2630	0017390	0035	15195									
	OBS	0020	1834	36430	2630			15195									
	STD	0030	1830	3643	2631	0017358	0052	15196									
	OBS	0030	1830	36426	2631			15196									
	STD	0050	1823	3642	2632	0017320	0087	15197									
	OBS	0050	1823	36418	2632			15197									
	STD	0075	1743	3640	2650	0015662	0128	15177									
	OBS	0075	1743	36399	2650			15177									
	STD	0100	1722	3640	2655	0015254	0167	15175									
	OBS	0100	1722	36400	2655			15175									
	STD	0125	1713	3640	2657	0015131	0205	15177									
	OBS	0125	1713	36400	2657			15177									
	STD	0150	1710	3641	2659	0015102	0242	15180									
	OBS	0150	1710	36406	2659			15180									
	STD	0200	1700	3640	2660	0015112	0318	15185									
	OBS	0200	1700	36396	2660			15185									
	STD	0250	1698	3640	2661	0015203	0394	15193									
	OBS	0250	1698	36400	2661			15193									
	STD	0300	1694	3639	2661	0015335	0470	15200									
	OBS	0300	1694	36392	2661			15200									
	STD	0400	1640	3627	2665	0015315	0623	15198									
	OBS	0400	1640	36269	2665			15198									
	STD	0500	1574	3615	2671	0015005	0775	15193									
	OBS	0500	1574	36150	2671			15193									
	STD	0600	1468	3593	2677	0014590	0923	15174									
	OBS	0600	1468	35928	2677			15174									
	STD	0700	1274	3563	2695	0012977	1061	15123									
	OBS	0700	1274	35633	2695			15123									
	STD	0800	1104	3538	2708	0011778	1185	15077									
	OBS	0800	1104	35380	2708			15077									
	STD	0900	0870	3515	2731	0009514	1491	15006									
	OBS	0900	0870	35153	2731			15006									
	STD	1000	0730	3507	2745	0008038	1379	14968									
	OBS	1000	0730	35071	2745			14968									
	STD	1100	0651	3513	2761	0006551	1452	14955									
	OBS	1100	0651	35131	2761			14955									
	STD	1200	0533	3503	2768	0005719	1513	14923									
	OBS	1200	0533	3604P	2848P												
	STD	1300	0487	3501	2772	0005316	1568	14920									
	OBS	1300	0487	35014	2772			14920									
	STD	1400	0494	3507	2776	0005121	1620	14941									
	OBS	1400	0494	35069	2776			14941									
	STD	1500	0460	3504	2777	0005004	1671	14943									
	OBS	1500	0460	35035	2777			14943									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DIRECT INDICATOR	MARSOEN 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	
CRUISE CODE	ID. NO.					10°	1°	MO	DAY	NR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318081		CO	37498N	050185W		114	70	06	04	125	1969	11P	10594	5231	15	34	2	3		X1	0	7	0131
						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	04	S05	318		20	16	7 24													
MESSAGE TIME OF NR 1/10	CAS 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	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	SIO ₄ -Si µg · ml/l	pH					
		STD	0000	1844	3641	2626		0017711		0000	15194												
125		OBS	0000	1844	36409	2626					15194												
		STD	0010	1842	3641	2626		0017691		0018	15196												
		OBS	0010	1842	36410	2626					15196												
		STD	0020	1840	3641	2627		0017678		0035	15197												
004		OBS	0020	1840	36410	2627					15197												
		STD	0030	1839	3641	2627		0017690		0053	15198												
		OBS	0030	1839	36410	2627					15198												
		STD	0050	1784	3647	2645		0016019		0087	15186												
		OBS	0050	1784	36470	2645					15186												
		STD	0075	1738	3640	2651		0015560		0126	15176												
		OBS	0075	1738	36397	2651					15176												
		STD	0100	1715	3638	2655		0015230		0165	15173												
		OBS	0100	1715	36381	2655					15173												
		STD	0125	1708	3638	2657		0015161		0203	15175												
		OBS	0125	1708	36380	2657					15175												
		STD	0150	1702	3639	2659		0015056		0240	15177												
		OBS	0150	1702	36387	2659					15177												
		STD	0200	1701	3641	2661		0015033		0316	15186												
		OBS	0200	1701	36410	2661					15186												
		STD	0250	1697	3641	2662		0015144		0391	15193												
		OBS	0250	1697	36405	2662					15193												
		STD	0300	1694	3640	2662		0015277		0467	15200												
		OBS	0300	1694	36400	2662					15200												
		STD	0400	1639	3627	2665		0015285		0620	15198												
		OBS	0400	1639	36270	2665					15198												
		STD	0500	1569	3611	2669		0015169		0772	15191												
		OBS	0500	1569	36112	2669					15191												
		STD	0600	1393	3581	2685		0013847		0917	15148												
		OBS	0600	1393	35811	2685					15148												
		STD	0700	1227	3557	2700		0012497		1049	15106												
		OBS	0700	1227	35571	2700					15106												
		STD	0800	1045	3535	2717		0010913		1166	15056												
		OBS	0800	1045	35350	2717					15056												
		STD	0900	0839	3513	2733		0009200		1267	14994												
		OBS	0900	0839	35126	2733					14994												
		STD	1000	0694	3509	2752		0007363		1350	14954												
		OBS	1000	0694	35088	2752					14954												
		STD	1100	0584	3506	2764		0006100		1417	14927												
		OBS	1100	0584	35059	2764					14927												
		STD	1200	0495	3500	2770		0005402		1474	14907												
		OBS	1200	0495	35002	2770					14907												
		STD	1300	0463	3500	2774		0005122		1527	14910												
		OBS	1300	0463	34996	2774					14910												
		STD	1400	0447	3500	2775		0005002		1578	14920												
		OBS	1400	0447	34997	2775					14920												
		STD	1500	0427	3499	2777		0004911		1627	14929												
		OBS	1500	0427	34986	2777					14929												

TABLE III.—Observed and interpolated oceanographic data from stations occupied by USCGC SHERMAN, 15-19 August 1969, prepared from NODC Listing No. 31-8132

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	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			DIR.	HGT	PER		SEA	TYPE		AMT
						COLOR CODE	TRANS. (m)	OIL	SPEED OR FORCE	BARO- METER (mb)													
						DT	SD	30	S14	103	077	069	7	16									
MESSENGER TIME HR 1/10	CASST NO.	CABO TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta$ O OYN. M. R 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	S CO ₃					
084		STD	0000	0677	3167	2485	0031073		0000	14738													
		OBS	0000	0677	31670	2485				14738													
		STD	0010	0165	3237	2592	0020967		0026	14533													
		STD	0020	-0099	3277	2636	0016683		0045	14419													
		OBS	0020	-0099	32765	2636				14419													
003		STD	0030	-0116	3286	2644	0015928		0061	14414													
		OBS	0030	-0116	32856	2644				14414													
		OBS	0045	-0126	33056	2661				14415													
		STD	0050	-0123	3310	2664	0014046		0091	14418													
		OBS	0050	-0123	33097	2664				14418													
		STD	0075	-0121	3318	2671	0013377		0125	14424													
		OBS	0075	-0121	33183	2671				14424													
		STD	0100	-0117	3329	2679	0012555		0158	14431													
		OBS	0100	-0117	33290	2679				14431													
		STD	0125	-0085	3349	2694	0011147		0187	14453													
		OBS	0125	-0085	33487	2694				14453													
		OBS	0145	-0078	33545	2699				14461													
		STD	0150	-0075	3356	2700	0010617		0215	14463													
		OBS	0150	-0075	33560	2700				14463													
		OBS	0175	-0060	33614	2704				14475													
	STD	0200	-0036	3372	2711	0009572		0265	14492														
	OBS	0200	-0036	33717	2711				14492														
	OBS	0225	0060	33941	2724				14543														
	OBS	0230	0052	34000	2729				14541														
	STD	0250	0088	3404	2730	0007816		0309	14561														
	OBS	0250	0088	34040	2730				14561														
	OBS	0260	0098	34073	2732				14567														

REFERENCE	SNIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MO	DAY	HR. 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOQC STATION NUMBER
								CRUISE NO.	STATION NUMBER			DIR.	HGT PER SEA	TYPE		AMT		
318132	1H	5452 N	05340 W	186	43	08 15 097	1969	A15	002	0549		34	2	3		X6	0 6	0002
				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											
		OT	SD	30	S14	103	077	069	6	26								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t 10 ³		Σ Δ σ OYN. 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	SEC
097		STD	0000	0653	3133	2462	0033304		0000	14724								
		OBS	0000	0653	31333	2462				14724								
		STD	0010	0212	3262	2608	0019373		0026	14557								
003		OBS	0010	0212	32622	2608				14557								
		STD	0020	-0093	3313	2666	0013881		0043	14427								
		OBS	0020	-0093	33133	2666				14427								
		STD	0030	-0109	3314	2667	0013755		0057	14422								
		OBS	0030	-0109	33142	2667				14422								
		OBS	0045	-0053	33320	2680				14453								
		STD	0050	-0073	3332	2680	0012519		0083	14444								
		OBS	0050	-0073	33318	2680				14444								
		OBS	0055	-0118	33313	2681				14424								
		STD	0075	-0094	3347	2693	0011299		0113	14441								
		OBS	0075	-0094	33466	2693				14441								
		STD	0100	-0078	3360	2704	0010290		0140	14454								
		OBS	0100	-0078	33604	2704				14454								
		STD	0125	-0030	3376	2714	0009294		0164	14483								
		OBS	0125	-0030	33760	2714				14483								
		STD	0150	0040	3396	2727	0008142		0186	14522								
		OBS	0150	0040	33958	2727				14522								
		OBS	0175	0215	34316	2743				14609								
		STD	0200	0286	3446	2749	0006151		0222	14646								
		OBS	0200	0286	34462	2749				14646								
		STD	0250	0371	3467	2758	0005431		0251	14693								
		OBS	0250	0371	34671	2758				14693								
		OBS	0275	0385	34710	2759				14704								
		STD	0300	0372	3470	2760	0005290		0278	14702								
		OBS	0300	0372	34697	2760				14702								
		OBS	0305	0372	34707	2760				14703								
		OBS	0315	0378	34726	2761				14708								
		OBS	0330	0374	34731	2762				14708								
		OBS	0350	0377	34748	2763				14713								
		OBS	0375	0396	34808	2766				14726								
		STD	0400	0402	3482	2766	0004763		0328	14733								
		OBS	0400	0402	34822	2766				14733								
		OBS	0425	0403	34817	2766				14737								
		OBS	0450	0395	34822	2767				14738								
		STD	0500	0394	3482	2767	0004771		0376	14746								
		OBS	0500	0394	34822	2767				14746								
		OBS	0520	0394	34821	2767				14749								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DEPTH METERS	MARS SQUARE		STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAR. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
CTRY CODE	ID. NO.					10"	1'	MD	DAY	HR.1/10	CRUISE NO.		STATION NUMBER	DIR			HGT	PER	SEA		TYPE	AMT	
318132	1H		5458 N	05326 W	186	43	08	15	114	1969	A15	003		1500		34	3	3		X2	016		0003
		WATER				WIND				BARO- METER		AIR TEMP. °C		VIS CODE	NO. OBS. DEPTH	SPECIAL OBSERVATIONS							
COLOR CODE	TRANS. 1/10	DIR.	SPEED OR FORCE	BARO- METER (mb)	DRY BULB	WET BULB																	
DT	SD	34	S10	108	083	077	7	24															
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	PD 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							
114		STD	0000	0693	3258	2554	0024492	0000	14756														
		OBS	0000	0693	32577	2554			14756														
004		STD	0010	0698	3389	2657	0014763	0020	14777														
		OBS	0010	0698	33891	2657			14777														
		STD	0020	0606	3426	2698	0010865	0032	14747														
		OBS	0020	0606	34260	2698			14747														
		STD	0030	0456	3439	2726	0008234	0042	14689														
		OBS	0030	0456	34386	2726			14689														
		STD	0050	0387	3458	2749	0006065	0056	14666														
		OBS	0050	0387	34584	2749			14666														
		STD	0075	0364	3471	2761	0004946	0070	14662														
		OBS	0075	0364	34706	2761			14662														
		STD	0100	0367	3476	2765	0004583	0082	14668														
		OBS	0100	0367	34761	2765			14668														
		STD	0125	0376	3480	2767	0004431	0093	14676														
		OBS	0125	0376	34796	2767			14676														
		STD	0150	0378	3481	2768	0004361	0104	14681														
		OBS	0150	0378	34811	2768			14681														
		STD	0200	0371	3482	2770	0004239	0126	14687														
		OBS	0200	0371	34824	2770			14687														
		STD	0250	0374	3484	2771	0004180	0147	14697														
		OBS	0250	0374	34842	2771			14697														
		STD	0300	0379	3485	2771	0004194	0168	14707														
		OBS	0300	0379	34853	2771			14707														
		STD	0400	0384	3488	2773	0004159	0209	14726														
		OBS	0400	0384	34877	2773			14726														
		STD	0500	0391	3490	2774	0004164	0251	14746														
		OBS	0500	0391	34899	2774			14746														
		STD	0600	0394	3491	2774	0004231	0293	14764														
		OBS	0600	0394	34907	2774			14764														
		STD	0700	0388	3491	2775	0004212	0335	14778														
		OBS	0700	0388	34913	2775			14778														
		STD	0800	0383	3491	2776	0004253	0378	14793														
		OBS	0800	0383	34912	2776			14793														
		STD	0900	0373	3491	2776	0004233	0420	14805														
		OBS	0900	0373	34911	2776			14805														
		STD	1000	0370	3491	2777	0004299	0463	14820														
		OBS	1000	0370	34909	2777			14820														
		STD	1100	0369	3491	2777	0004336	0506	14837														
		OBS	1100	0369	34914	2777			14837														
		STD	1200	0369	3492	2778	0004355	0549	14854														
		OBS	1200	0369	34923	2778			14854														
		STD	1300	0367	3493	2778	0004377	0593	14870														
		OBS	1300	0367	34928	2778			14870														
		STD	1400	0361	3493	2779	0004356	0637	14884														
		OBS	1400	0361	34932	2779			14884														
		OBS	1450	0361	34934	2780			14893														

REFERENCE		SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DATE MO DAY	MARSDEN 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
						10"	1"	MO	DAY	HR./10	CRUISE NO.		STATION NUMBER	DIR.			HGT	PER	SEA	TYPE		AMT		
318132	1H		5507 N	05310 W	186	53	08	15	137	1969	A15	004		2377		34	3	3		X2	0	6	0004	
						WATER		WIND		BARO- METER (mbs)		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE		DRY BULB	WET BULB	VIS. CODE											
						DT	SD	34	S10	111	085	078	7	27										

MESSNGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDALTY-110?	$\Sigma \Delta \sigma$ 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	SIO ₄ -Si µg - ml/l	pH	S C/C
137	STD		0000	0815	3361	2618	0018459	0000	14817								
	OBS		0000	0815	33606	2618			14817								
	STD		0010	0814	3368	2624	0017912	0018	14819								
003	OBS		0010	0814	33680	2624			14819								
	STD		0020	0640	3415	2685	0012112	0033	14759								
	OBS		0020	0640	34149	2685			14759								
	STD		0030	0467	3433	2720	0008801	0044	14692								
	OBS		0030	0467	34326	2720			14692								
	STD		0050	0428	3446	2735	0007393	0060	14681								
	OBS		0050	0428	34462	2735			14681								
	STD		0075	0403	3453	2743	0006690	0077	14676								
	OBS		0075	0403	34525	2743			14676								
	STD		0100	0398	3455	2745	0006513	0094	14678								
	OBS		0100	0398	34545	2745			14678								
	STD		0125	0385	3461	2752	0005895	0109	14678								
	OBS		0125	0385	34613	2752			14678								
	STD		0150	0383	3465	2754	0005650	0124	14681								
	OBS		0150	0383	34646	2754			14681								
	STD		0200	0393	3474	2761	0005122	0151	14695								
	OBS		0200	0393	34736	2761			14695								
	STD		0250	0399	3482	2767	0004595	0175	14707								
	OBS		0250	0399	34821	2767			14707								
	STD		0300	0403	3484	2768	0004521	0198	14717								
	OBS		0300	0403	34843	2768			14717								
	STD		0400	0403	3487	2770	0004416	0243	14734								
	OBS		0400	0403	34870	2770			14734								
	OBS		0410	0403	34872	2770			14736								
	STD		0475	0391	34873	2772			14741								
	OBS		0500	0389	3488	2772	0004306	0286	14745								
	STD		0500	0389	34877	2772			14745								
	OBS		0600	0388	3489	2773	0004291	0329	14761								
	STD		0600	0388	34890	2773			14761								
	OBS		0700	0392	3492	2775	0004227	0372	14780								
	STD		0700	0392	34917	2775			14780								
	OBS		0800	0388	3492	2776	0004222	0414	14795								
	STD		0800	0388	34924	2776			14795								
	OBS		0860	0374	34914	2777			14799								
	STD		0900	0373	3492	2777	0004166	0456	14805								
	OBS		0900	0373	34920	2777			14805								
	STD		1000	0373	3493	2778	0004209	0498	14822								
	OBS		1000	0373	34926	2778			14822								
	STD		1100	0368	3494	2779	0004154	0540	14837								
	OBS		1100	0368	34937	2779			14837								
	STD		1200	0359	3494	2780	0004100	0581	14850								
	OBS		1200	0359	34941	2780			14850								
	STD		1300	0352	3494	2781	0004074	0622	14864								
	OBS		1300	0352	34944	2781			14864								
	STD		1400	0341	3495	2782	0004003	0662	14876								
	OBS		1400	0341	34946	2782			14876								
	STD		1500	0334	3495	2783	0003978	0702	14890								
	OBS		1500	0334	34948	2783			14890								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DIR INDIC	MARSDEN 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
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR, 1/10			CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	

318132	1H	55305N	052285W	186	52	08	15	165	1969	A15	005				3300		31	3	3		X2	0	6	0005
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. 1m	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			
DT	SD	33	S08	108	083	077	7	25	

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta O$ DTN. 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 -S $\mu g - dl/l$	pH	S CC
165	STD	0000	0913	3364	2605	0019659	0000	14854									
	OBS	0000	0913	33638	2605			14854									
	STD	0010	0751	3385	2646	0015780	0018	14797									
003	OBS	0010	0751	33849	2646			14797									
	STD	0020	0601	3411	2687	0011933	0032	14743									
	OBS	0020	0601	34109	2687			14743									
	STD	0030	0491	3438	2721	0008669	0042	14703									
	OBS	0030	0491	34378	2721			14703									
	STD	0050	0396	3443	2736	0007334	0058	14667									
	OBS	0050	0396	34427	2736			14667									
	STD	0075	0371	3467	2757	0005299	0074	14664									
	OBS	0075	0371	34668	2757			14664									
	STD	0100	0354	3473	2764	0004698	0086	14662									
	OBS	0100	0354	34729	2764			14662									
	STD	0125	0353	34757	2766			14665									
	OBS	0125	0356	3479	2768	0004303	0097	14668									
	STD	0125	0356	34787	2768			14668									
	STD	0150	0369	3483	2770	0004137	0108	14678									
	OBS	0150	0369	34829	2770			14678									
	STD	0200	0397	3491	2774	0003889	0128	14699									
	OBS	0200	0397	34906	2774			14699									
	STD	0250	0401	3492	2774	0003913	0148	14709									
	OBS	0250	0401	34915	2774			14709									
	STD	0300	0365	3487	2774	0003901	0167	14702									
	OBS	0300	0365	34873	2774			14702									
	STD	0400	0370	3489	2775	0003892	0206	14720									
	OBS	0400	0370	34893	2775			14720									
	STD	0500	0380	3492	2777	0003858	0245	14742									
	OBS	0500	0380	34924	2777			14742									
	STD	0600	0388	3494	2777	0003919	0284	14762									
	OBS	0600	0388	34940	2777			14762									
	STD	0700	0382	3494	2778	0003921	0323	14776									
	OBS	0700	0382	34943	2778			14776									
	STD	0800	0367	3493	2778	0003966	0362	14786									
	OBS	0800	0367	34926	2778			14786									
	STD	0900	0355	3492	2779	0003988	0402	14798									
	OBS	0900	0355	34916	2779			14798									
	STD	1000	0358	3492	2779	0004047	0442	14816									
	OBS	1000	0358	34924	2779			14816									
	STD	1100	0357	3492	2779	0004133	0483	14832									
	OBS	1100	0357	34922	2779			14832									
	STD	1200	0359	3493	2779	0004196	0525	14850									
	OBS	1200	0359	34928	2779			14850									
	STD	1300	0366	3493	2779	0004350	0568	14869									
	OBS	1300	0366	34930	2779			14869									
	STD	1400	0368	3493	2779	0004430	0611	14887									
	OBS	1400	0368	34934	2779			14887									
	STD	1500	0364	3494	2779	0004439	0656	14902									
	OBS	1500	0364	34937	2779			14902									

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPTH METER	MARSO SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
CRUISE NO.	ID. NO.					10°	1°	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT	
3181	132	1H	5622 N	05050 W		186	60	08	15	214	1969	A15	006	3569		33	2	3		X2	0	6	0006

318132	1H	5622 N	05050 W	186	60	08	15	214	1969		A15	006		3569		33	2	3		X2	0	6	0006
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		NO. DBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB		
DT	SD	32	S10	108	078	065	7	28

WESSENGER TIME HR 1/10	CASST OF ND.	CARD TYPE	DEPTH (m)	T °C	S %.	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	D 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	COND
		STD	0000	0910	3437	2663	0014222	0000	14863								
214		OBS	0000	0910	34365	2663			14863								
		STD	0010	0909	3437	2663	0014226	0014	14864								
		OBS	0010	0909	34365	2663			14864								
		STD	0020	0903	3437	2664	0014117	0028	14863								
004		OBS	0020	0903	34370	2664			14863								
		STD	0030	0607	3438	2708	0009979	0040	14750								
		OBS	0030	0607	34382	2708			14750								
		STD	0050	0456	3452	2737	0007227	0058	14694								
		OBS	0050	0456	34523	2737			14694								
		STD	0075	0401	3455	2745	0006475	0075	14675								
		OBS	0075	0401	34551	2745			14675								
		STD	0100	0351	3456	2751	0005948	0090	14658								
		OBS	0100	0351	34559	2751			14658								
		STD	0125	0318	3459	2756	0005426	0105	14649								
		OBS	0125	0318	34590	2756			14649								
		OBS	0135	0318	34599	2757			14651								
		STD	0150	0326	3464	2759	0005150	0118	14657								
		OBS	0150	0326	34639	2759			14657								
		OBS	0195	0353	34719	2763			14677								
		STD	0200	0333	3471	2764	0004730	0142	14669								
		OBS	0200	0333	34709	2764			14669								
		OBS	0211	0364	34749	2765			14685								
		OBS	0235	0326	34728	2767			14672								
		STD	0250	0343	3477	2768	0004387	0165	14683								
		OBS	0250	0343	34773	2768			14683								
		STD	0300	0393	3487	2771	0004236	0187	14713								
		OBS	0300	0393	34867	2771			14713								
		STD	0400	0385	3488	2773	0004163	0229	14727								
		OBS	0400	0385	34878	2773			14727								
		STD	0500	0376	3488	2773	0004165	0270	14739								
		OBS	0500	0376	34877	2773			14739								
		STD	0600	0367	3488	2774	0004171	0312	14752								
		OBS	0600	0367	34875	2774			14752								
		STD	0700	0359	3487	2775	0004176	0354	14765								
		OBS	0700	0359	34874	2775			14765								
		STD	0800	0352	3487	2776	0004190	0396	14779								
		OBS	0800	0352	34873	2776			14779								
		STD	0900	0349	3487	2776	0004245	0438	14794								
		OBS	0900	0349	34872	2776			14794								
		STD	1000	0347	3487	2776	0004318	0481	14810								
		OBS	1000	0347	34870	2776			14810								
		STD	1100	0347	3487	2776	0004413	0524	14827								
		OBS	1100	0347	34868	2776			14827								
		STD	1200	0347	3487	2776	0004463	0569	14844								
		OBS	1200	0347	34872	2776			14844								
		STD	1300	0350	3487	2776	0004579	0614	14862								
		OBS	1300	0350	34872	2776			14862								
		STD	1400	0352	3488	2776	0004639	0660	14880								
		OBS	1400	0352	34878	2776			14880								
		STD	1500	0355	3489	2776	0004683	0707	14898								
		OBS	1500	0355	34888	2776			14898								

REFERENCE		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'PL'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		
318132	1H		56565N	04937 W		185	69	08	16	022	1969	A15	007		3475		33	2	3		X2	0	6	0007
		WATER		WIND		BARO- METER		AIR TEMP. °C		VIS.		NO. DRS. DEPTHS		SPECIAL OBSERVATIONS										
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB	DRY BULB	WET BULB											
		DT	SD	01	S12	068	077	071	6	24														

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ DTN. 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 $\mu\text{g} \cdot \text{at/l}$	Si O ₄ -Si $\mu\text{g} \cdot \text{at/l}$	pH	CTD
		STD	0000	0931	3435	2658	0014693	0000	14870								
022		OBS	0000	0931	34345	2658			14870								
		STD	0010	0911	3437	2663	0014242	0014	14865								
		OBS	0010	0911	34367	2663			14865								
004		STD	0020	0871	3441	2673	0013308	0028	14852								
		OBS	0020	0871	34414	2673			14852								
		STD	0030	0731	3445	2697	0011036	0040	14800								
		OBS	0030	0731	34454	2697			14800								
		STD	0050	0464	3446	2731	0007762	0059	14696								
		OBS	0050	0464	34463	2731			14696								
		STD	0075	0331	3456	2753	0005703	0076	14646								
		OBS	0075	0331	34564	2753			14646								
		STD	0100	0305	3460	2758	0005252	0090	14639								
		OBS	0100	0305	34595	2758			14639								
		STD	0125	0316	3466	2762	0004888	0102	14649								
		OBS	0125	0316	34659	2762			14649								
		STD	0150	0343	3473	2765	0004612	0114	14666								
		OBS	0150	0343	34732	2765			14666								
		STD	0200	0382	3482	2768	0004373	0137	14692								
		OBS	0200	0382	34821	2768			14692								
		STD	0250	0372	3483	2770	0004249	0158	14696								
		OBS	0250	0372	34830	2770			14696								
		STD	0300	0374	3485	2772	0004150	0179	14705								
		OBS	0300	0374	34852	2772			14705								
		STD	0400	0369	3487	2773	0004083	0220	14720								
		OBS	0400	0369	34866	2773			14720								
		STD	0500	0364	3487	2774	0004111	0261	14734								
		OBS	0500	0364	34867	2774			14734								
		STD	0600	0367	3488	2775	0004111	0303	14752								
		OBS	0600	0367	34883	2775			14752								
		STD	0700	0369	3489	2775	0004191	0344	14770								
		OBS	0700	0369	34887	2775			14770								
		STD	0800	0360	3489	2776	0004183	0386	14783								
		OBS	0800	0360	34886	2776			14783								
		STD	0900	0355	3488	2776	0004232	0428	14797								
		OBS	0900	0355	34883	2776			14797								
		STD	1000	0353	3488	2776	0004307	0471	14813								
		OBS	1000	0353	34881	2776			14813								
		STD	1100	0352	3488	2776	0004384	0514	14829								
		OBS	1100	0352	34880	2776			14829								
		STD	1200	0352	3488	2776	0004464	0558	14846								
		OBS	1200	0352	34880	2776			14846								
		STD	1300	0354	3488	2776	0004540	0603	14864								
		OBS	1300	0354	34884	2776			14864								
		STD	1400	0363	3491	2777	0004542	0649	14885								
		OBS	1400	0363	34910	2777			14885								
		STD	1500	0366	3492	2778	0004590	0694	14903								
		OBS	1500	0366	34920	2778			14903								

REFERENCE CRST CODE	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARS 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		
					10"	1"	MO DAY HR.1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318132	1H	5738 N	04819 W	185 78	08	16	086	1969	A15	008	3568		03	4	2		X6	0	6	0008		
					WATER		WIND		AIR TEMP. °C		NO. OBS. DEPTH'S		SPECIAL OBSERVATIONS									
					COLOR CODE	TRANS. (mm)	DIR.	SPEED OR FORCE	BARO- METER (mbal)	DRY BULB	WET BULB	VIS. CODE										
					DT	SD	03	526	060	073	067	7	26									

MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME AND SALTY-R10 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 ₂ -N μg - at/l	NO ₃ -N μg - at/l	SiO ₄ -Si μg - at/l	pH	1 C C
086		STD	0000	0798	3448	2689	0011727	0000	14822								
		OBS	0000	0798	34479	2689			14822								
		STD	0010	0798	3448	2689	0011752	0012	14823								
004		OBS	0010	0798	34478	2689			14823								
		STD	0020	0797	3448	2689	0011763	0023	14825								
		OBS	0020	0797	34477	2689			14825								
		STD	0030	0730	3444	2696	0011097	0035	14800								
		OBS	0030	0730	34444	2696			14800								
		STD	0050	0477	3471	2749	0006080	0052	14705								
		OBS	0050	0477	34706	2749			14705								
		STD	0075	0393	3483	2768	0004276	0065	14676								
		OBS	0075	0393	34833	2768			14676								
		STD	0100	0417	3487	2769	0004260	0076	14690								
		OBS	0100	0417	34871	2769			14690								
		STD	0125	0423	3488	2769	0004280	0086	14697								
		OBS	0125	0423	34880	2769			14697								
		STD	0150	0426	3489	2770	0004240	0097	14703								
		OBS	0150	0426	34893	2770			14703								
		OBS	0175	0418	34896	2771			14704								
		STD	0200	0423	3491	2771	0004125	0118	14710								
		OBS	0200	0423	34911	2771			14710								
		STD	0250	0414	3491	2772	0004125	0139	14714								
		OBS	0250	0414	34905	2772			14714								
		STD	0300	0413	3491	2772	0004164	0159	14722								
		OBS	0300	0413	34905	2772			14722								
		STD	0400	0390	3489	2773	0004104	0201	14729								
		OBS	0400	0390	34893	2773			14729								
		STD	0500	0370	3487	2774	0004145	0242	14737								
		OBS	0500	0370	34871	2774			14737								
		OBS	0580	0368	34875	2774			14749								
		STD	0600	0372	3488	2774	0004173	0283	14754								
		OBS	0600	0372	34882	2774			14754								
		OBS	0660	0377	34893	2775			14767								
		STD	0700	0377	3489	2775	0004236	0326	14773								
		OBS	0700	0377	34893	2775			14773								
		STD	0800	0368	3488	2775	0004311	0368	14786								
		OBS	0800	0368	34881	2775			14786								
		STD	0900	0359	3488	2775	0004308	0411	14799								
		OBS	0900	0359	34879	2775			14799								
		STD	1000	0355	3487	2775	0004389	0455	14814								
		OBS	1000	0355	34873	2775			14814								
		STD	1100	0353	3487	2775	0004447	0499	14830								
		OBS	1100	0353	34873	2775			14830								
		STD	1200	0351	3487	2776	0004497	0544	14846								
		OBS	1200	0351	34874	2776			14846								
		OBS	1240	0352	34879	2776			14853								
		STD	1300	0358	3489	2777	0004516	0589	14866								
		OBS	1300	0358	34894	2777			14866								
		STD	1400	0365	3491	2777	0004553	0634	14886								
		OBS	1400	0365	34912	2777			14886								
		STD	1500	0365	3492	2778	0004569	0680	14903								
		OBS	1500	0365	34921	2778			14903								

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	DATE MO DAY HR./10	MARSSEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		MOOC STATION NUMBER		
					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER	SEA		TYPE	AMT			
318132	1H	5740 N	04810 W	185	78	08	16	116	1969	A15	009		3566		36	5	3		X2	0	6		0009	
					WATER		WIND		BARO- METER		AIR TEMP. °C						SPECIAL OBSERVATIONS							
					COLOR CODE	TRANS. UNIT	DIR.	SPEED OR FORCE		DRY BULB	WET BULB		VIS CODE	NO. OBS. DEPTHS										
					DT	SD	36	S28	066	072	069		7	29										

MESSAGE TIME NR	CASE NO.	CARD TYPE	DEPTN (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-20°	$\Sigma \Delta \sigma$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} \cdot \text{dl}^{-1}$	TOTAL-P $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₂ -N $\mu\text{g} \cdot \text{dl}^{-1}$	NO ₃ -N $\mu\text{g} \cdot \text{dl}^{-1}$	SiO ₄ -Si $\mu\text{g} \cdot \text{dl}^{-1}$	pH	STATION
		STD	0000	0793	3446	2688	0011820	0000	14820								
116		OBS	0000	0793	34457	2688			14820								
		STD	0010	0793	3445	2687	0011874	0012	14821								
		OBS	0010	0793	34452	2687			14821								
004		STD	0020	0792	3445	2688	0011878	0024	14822								
		OBS	0020	0792	34452	2688			14822								
		STD	0030	0607	3445	2713	0009501	0034	14751								
		OBS	0030	0607	34446	2713			14751								
		STD	0050	0428	3468	2752	0005771	0050	14684								
		OBS	0050	0428	34678	2752			14684								
		STD	0075	0401	3475	2761	0005002	0063	14678								
		OBS	0075	0401	34747	2761			14678								
		OBS	0090	0383	34762	2764			14673								
		STD	0100	0400	3482	2766	0004468	0075	14683								
		OBS	0100	0400	34820	2766			14683								
		STD	0125	0419	3486	2768	0004366	0086	14695								
		OBS	0125	0419	34863	2768			14695								
		STD	0150	0408	3485	2768	0004344	0097	14695								
		OBS	0150	0408	34854	2768			14695								
		STD	0200	0404	3488	2770	0004194	0118	14702								
		OBS	0200	0404	34875	2770			14702								
		STD	0250	0394	3487	2771	0004176	0139	14706								
		OBS	0250	0394	34870	2771			14706								
		OBS	0260	0389	34865	2771			14705								
		STD	0300	0396	3488	2771	0004193	0160	14715								
		OBS	0300	0396	34877	2771			14715								
		STD	0400	0387	3487	2772	0004236	0202	14727								
		OBS	0400	0387	34871	2772			14727								
		STD	0500	0372	3486	2773	0004226	0245	14737								
		OBS	0500	0372	34863	2773			14737								
		OBS	0540	0368	34847	2772			14742								
		STD	0600	0376	3486	2772	0004373	0288	14756								
		OBS	0600	0376	34861	2772			14756								
		OBS	0615	0382	34872	2772			14761								
		STD	0700	0385	3488	2773	0004408	0331	14776								
		OBS	0700	0385	34882	2773			14776								
		STD	0800	0376	3489	2774	0004365	0375	14789								
		OBS	0800	0376	34886	2774			14789								
		STD	0900	0365	3488	2775	0004377	0419	14801								
		OBS	0900	0365	34879	2775			14801								
		STD	1000	0360	3487	2775	0004462	0463	14816								
		OBS	1000	0360	34871	2775			14816								
		STD	1100	0356	3487	2775	0004498	0508	14831								
		OBS	1100	0356	34871	2775			14831								
		STD	1200	0355	3487	2775	0004567	0553	14847								
		OBS	1200	0355	34871	2775			14847								
		OBS	1220	0355	34873	2775			14851								
		STD	1300	0364	3489	2776	0004627	0599	14868								
		OBS	1300	0364	34889	2776			14868								
		STD	1400	0368	3491	2777	0004591	0645	14887								
		OBS	1400	0368	34912	2777			14887								
		STD	1500	0365	3491	2777	0004635	0692	14902								
		OBS	1500	0365	34912	2777			14902								

REFERENCE		SNIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DOUBT EXISTS	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	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
318132	1H		5739 N	04758 W		185	77	08	16	171	1969	A15	010	3308		03	4	3	1	X6	0	6	0010
						WATER		WIND		BARO- METER (mba)		AIR TEMP. °C										SPECIAL OBSERVATIONS	
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE			DRY BULB	WET BULB	VIS. CODE	NO. DBS. DEPTHS								
						DT	SD	36	S25	086		082	077	6	27								

MESSENGER TIME HR 1/10	CASST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND MALT-X10 ²	$\Sigma \Delta$ 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	SID ₄ -Si µg - ml/l	pH	3 C
		STD	0000	0793	3446	2688	0011775	0000	14820								
171		OBS	0000	0793	34463	2688			14820								
		STD	0010	0793	3445	2687	0011919	0012	14821								
		OBS	0010	0793	34446	2687			14821								
		STD	0020	0792	3446	2688	0011796	0024	14822								
005		OBS	0020	0792	34463	2688			14822								
		STD	0030	0736	3445	2695	0011149	0035	14802								
		OBS	0030	0736	34448	2695			14802								
		STD	0050	0425	3467	2752	0005808	0052	14683								
		OBS	0050	0425	34669	2752			14683								
		STD	0075	0401	3479	2764	0004687	0065	14679								
		OBS	0075	0401	34789	2764			14679								
		STD	0100	0398	3482	2767	0004463	0077	14682								
		OBS	0100	0398	34818	2767			14682								
		STD	0125	0403	3485	2768	0004313	0088	14688								
		OBS	0125	0403	34848	2768			14688								
		STD	0150	0411	3487	2770	0004225	0098	14696								
		OBS	0150	0411	34874	2770			14696								
		STD	0200	0414	3491	2772	0004067	0119	14706								
		OBS	0200	0414	34906	2772			14706								
		STD	0250	0404	3489	2771	0004161	0140	14710								
		OBS	0250	0404	34886	2771			14710								
		STD	0300	0394	3488	2772	0004119	0160	14714								
		OBS	0300	0394	34884	2772			14714								
		STD	0400	0386	3489	2774	0004061	0201	14727								
		OBS	0400	0386	34893	2774			14727								
		STD	0500	0376	3488	2774	0004142	0242	14739								
		OBS	0500	0376	34880	2774			14739								
		OBS	0550	0365	34871	2774			14743								
		STD	0600	0366	3488	2775	0004130	0284	14752								
		OBS	0600	0366	34879	2775			14752								
		OBS	0640	0367	34882	2775			14759								
		OBS	0660	0375	34909	2776			14766								
		STD	0700	0374	3490	2776	0004128	0325	14772								
		OBS	0700	0374	34903	2776			14772								
		STD	0800	0372	3490	2776	0004201	0367	14788								
		OBS	0800	0372	34902	2776			14788								
		STD	0900	0362	3489	2776	0004291	0409	14800								
		OBS	0900	0362	34886	2776			14800								
		STD	1000	0357	3488	2776	0004331	0452	14815								
		OBS	1000	0357	34884	2776			14815								
		STD	1100	0355	3489	2776	0004382	0496	14831								
		OBS	1100	0355	34885	2776			14831								
		STD	1200	0352	3488	2776	0004435	0540	14846								
		OBS	1200	0352	34884	2776			14846								
		STD	1300	0357	3490	2777	0004481	0584	14865								
		OBS	1300	0357	34897	2777			14865								
		STD	1400	0365	3492	2778	0004516	0629	14886								
		OBS	1400	0365	34917	2778			14886								
		STD	1500	0368	3493	2778	0004564	0675	14904								
		OBS	1500	0368	34927	2778			14904								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRIFT SQUARE	MARS SQUARE		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		
					10"	1"	MO	DAY	HR.		1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT		PER	SEA		TYPE	AMT
318132	1H	5735 N	04835 W		185	78	08	16	231	1969	A15	011	3336		03	4	3		X6	0	6	0011	
					WATER		WIND		BARO- METER		AIR TEMP. °C		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS								
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		VIS. CODE										
					DT	SD	36	518	108	077	073	6	26										

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. $\times 10^3$	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 CC
231		STD	0000	0824	3447	2684	0012150	0000	14832								
		OBS	0000	0824	34472	2684			14832								
		STD	0010	0824	3447	2684	0012169	0012	14833								
		OBS	0010	0824	34472	2684			14833								
005		STD	0020	0823	3447	2684	0012217	0024	14834								
		OBS	0020	0823	34466	2684			14834								
		STD	0030	0646	3439	2703	0010388	0036	14766								
		OBS	0030	0646	34392	2703			14766								
		STD	0050	0407	3466	2753	0005692	0052	14675								
		OBS	0050	0407	34660	2753			14675								
		STD	0075	0390	3468	2757	0005381	0066	14672								
		OBS	0075	0390	34682	2757			14672								
		OBS	0085	0365	34742	2764			14664								
		STD	0100	0375	3477	2765	0004632	0078	14671								
		OBS	0100	0375	34765	2765			14671								
		STD	0125	0380	3480	2767	0004426	0089	14678								
		OBS	0125	0380	34802	2767			14678								
		STD	0150	0383	3482	2768	0004344	0100	14684								
		OBS	0150	0383	34820	2768			14684								
		STD	0200	0412	3489	2771	0004181	0122	14705								
		OBS	0200	0412	34888	2771			14705								
		STD	0250	0399	3487	2771	0004213	0143	14708								
		OBS	0250	0399	34872	2771			14708								
		STD	0300	0392	3487	2771	0004225	0164	14713								
		OBS	0300	0392	34867	2771			14713								
		STD	0400	0383	3486	2771	0004268	0206	14726								
		OBS	0400	0383	34861	2771			14726								
		STD	0500	0374	3486	2772	0004277	0249	14738								
		OBS	0500	0374	34859	2772			14738								
		OBS	0550	0366	34853	2773			14743								
		STD	0600	0372	3487	2774	0004240	0292	14754								
		OBS	0600	0372	34873	2774			14754								
		STD	0700	0373	3488	2774	0004325	0334	14771								
		OBS	0700	0373	34875	2774			14771								
		STD	0800	0369	3488	2774	0004359	0378	14786								
		OBS	0800	0369	34876	2774			14786								
		STD	0900	0362	3487	2774	0004394	0422	14800								
		OBS	0900	0362	34872	2774			14800								
		STD	1000	0355	3487	2775	0004426	0466	14814								
		OBS	1000	0355	34868	2775			14814								
		STD	1100	0354	3487	2775	0004518	0510	14830								
		OBS	1100	0354	34865	2775			14830								
		STD	1200	0351	3486	2775	0004578	0556	14845								
		OBS	1200	0351	34863	2775			14845								
		STD	1300	0358	3488	2776	0004619	0602	14865								
		OBS	1300	0358	34880	2776			14865								
		STD	1400	0364	3490	2776	0004636	0648	14885								
		OBS	1400	0364	34899	2776			14885								
		STD	1500	0364	3490	2776	0004725	0695	14902								
		OBS	1500	0364	34898	2776			14902								

REFERENCE		SHIP CODE	LATITUDE °	LONGITUDE °	DEPTH INDEX	MARS 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		
CTRY CODE	IO. NO.					10"	1"	MO	DAY		HR	1/10			CRUISE NO.	STATION NUMBER	DIR		HGT	PER		SEA	TYPE
318132	1H		5808 N	04703 W		185	87	08	17	073	1969	A15	012	3017		33	4	2		X2	0	6	0012
						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	33	S16	120	056	049	8	25									
MESSAGE NR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta O$ DTN. M. $\times 10^3$		SOUND VELOCITY	D_2 ml/l	PO_4-P $\mu g - \mu l/l$	TOTAL-P $\mu g - \mu l/l$	NO_3-N $\mu g - \mu l/l$	NO_3-N $\mu g - \mu l/l$	SiO_4-Si $\mu g - \mu l/l$	pH					
		STD	0000	0756	3387	2647	0015690		0000		14798												
073		OBS	0000	0756	33868	2647					14798												
		STD	0010	0757	3391	2650	0015445		0016		14800												
		OBS	0010	0757	33905	2650					14800												
		STD	0020	0710	3441	2696	0011044		0029		14790												
003		OBS	0020	0710	34413	2696					14790												
		STD	0030	0649	3450	2712	0009620		0039		14769												
		OBS	0030	0649	34500	2712					14769												
		STD	0050	0524	3459	2734	0007494		0056		14723												
		OBS	0050	0524	34587	2734					14723												
		STD	0075	0461	3481	2759	0005177		0072		14704												
		OBS	0075	0461	34807	2759					14704												
		STD	0100	0453	3483	2762	0004947		0085		14705												
		OBS	0100	0453	34830	2762					14705												
		STD	0125	0434	3487	2767	0004478		0097		14702												
		OBS	0125	0434	34869	2767					14702												
		STD	0150	0450	3490	2767	0004482		0108		14713												
		OBS	0150	0450	34895	2767					14713												
		STD	0200	0426	3488	2768	0004404		0130		14711												
		OBS	0200	0426	34878	2768					14711												
		STD	0250	0444	3492	2770	0004308		0152		14727												
		OBS	0250	0444	34924	2770					14727												
		STD	0300	0423	3490	2770	0004332		0173		14726												
		OBS	0300	0423	34897	2770					14726												
		OBS	0325	0436	34927	2771					14736												
		STD	0400	0412	3490	2771	0004320		0217		14738												
		OBS	0400	0412	34896	2771					14738												
		STD	0500	0397	3488	2772	0004371		0260		14748												
		OBS	0500	0397	34880	2772					14748												
		STD	0600	0387	3487	2772	0004406		0304		14761												
		OBS	0600	0387	34873	2772					14761												
		STD	0700	0388	3488	2773	0004427		0348		14778												
		OBS	0700	0388	34884	2773					14778												
		STD	0800	0387	3490	2774	0004395		0392		14794												
		OBS	0800	0387	34899	2774					14794												
		STD	0900	0373	3488	2774	0004440		0436		14805												
		OBS	0900	0373	34883	2774					14805												
		STD	1000	0363	3488	2775	0004431		0481		14817												
		OBS	1000	0363	34880	2775					14817												
		STD	1100	0360	3488	2775	0004501		0525		14833												
		OBS	1100	0360	34877	2775					14833												
		STD	1200	0363	3488	2775	0004576		0571		14851												
		OBS	1200	0363	34883	2775					14851												
		STD	1300	0370	3490	2776	0004599		0617		14871												
		OBS	1300	0370	34903	2776					14871												
		STD	1400	0370	3491	2777	0004638		0663		14888												
		OBS	1400	0370	34909	2777					14888												
		STD	1500	0373	3492	2777	0004658		0709		14906												
		OBS	1500	0373	34923	2777					14906												

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DATE MO DAY	MARSOEN 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		
CHY CODE	IO. NO.						10"	1"	MO		OAY	HR,1/10			CRUISE NO.	STATION NUMBER	DIR.		HGT	PER		SEA	TYPE
318132	1H	5834	N	04602	W	185	86	08	17	111	1969	A15	013	2468		33	4	2		X2	0	6	0013
						WATER		WIND				AIR TEMP. °C											
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mb)			DRY BULB	WET BULB	VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						DT	SD	31	512	120			039	036	8	31							

MESSNGR TIME & NR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANDALTY-2107	Σ Δ D 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	SCC
111		STD	0000	0734	3376	2642	0016184	0000	14788								
		OBS	0000	0734	33762	2642			14788								
004		STD	0010	0740	3377	2642	0016190	0016	14792								
		OBS	0010	0740	33774	2642			14792								
		STD	0020	0731	3393	2656	0014893	0032	14792								
		OBS	0020	0731	33934	2656			14792								
		STD	0030	0662	3459	2717	0009121	0044	14775								
		OBS	0030	0662	34589	2717			14775								
		STD	0050	0618	3485	2743	0006655	0060	14764								
		OBS	0050	0618	34849	2743			14764								
		STD	0075	0453	3468	2750	0006052	0075	14699								
		OBS	0075	0453	34679	2750			14699								
		STD	0100	0418	3478	2761	0004953	0089	14690								
		OBS	0100	0418	34780	2761			14690								
		STD	0125	0407	3481	2765	0004639	0101	14690								
		STD	0150	0401	3483	2767	0004422	0112	14692								
		OBS	0150	0401	34834	2767			14692								
		OBS	0190	0402	34844	2768			14699								
		STD	0200	0408	3485	2768	0004409	0135	14703								
		OBS	0200	0408	34852	2768			14703								
		OBS	0210	0426	34894	2770			14713								
		OBS	0220	0411	34874	2770			14708								
		STD	0250	0414	3489	2771	0004230	0156	14714								
		OBS	0250	0414	34891	2771			14714								
		STD	0300	0424	3491	2771	0004254	0177	14727								
		OBS	0300	0424	34909	2771			14727								
		OBS	0320	0455	34962	2772			14744								
		OBS	0345	0455	34957	2771			14748								
		OBS	0380	0425	34920	2772			14741								
		STD	0400	0429	3493	2772	0004255	0220	14746								
		OBS	0400	0429	34930	2772			14746								
		OBS	0460	0433	34943	2773			14758								
		STD	0500	0427	3494	2773	0004238	0262	14762								
		OBS	0500	0427	34943	2773			14762								
		STD	0600	0408	3492	2773	0004315	0305	14770								
		OBS	0600	0408	34917	2773			14770								
		STD	0700	0402	3492	2774	0004335	0348	14784								
		OBS	0700	0402	34918	2774			14784								
		STD	0800	0389	3492	2775	0004285	0391	14795								
		OBS	0800	0389	34917	2775			14795								
		STD	0900	0373	3490	2776	0004307	0434	14805								
		OBS	0900	0373	34901	2776			14805								
		OBS	0960	0365	34891	2776			14811								
		STD	1000	0368	3491	2777	0004275	0477	14820								
		OBS	1000	0368	34909	2777			14820								
		STD	1100	0377	3493	2777	0004344	0520	14840								
		OBS	1100	0377	34926	2777			14840								
		STD	1200	0373	3493	2778	0004337	0564	14856								
		OBS	1200	0373	34932	2778			14856								
		STD	1300	0368	3494	2779	0004302	0607	14870								
		OBS	1300	0368	34940	2779			14870								
		STD	1400	0364	3494	2780	0004335	0650	14886								
		OBS	1400	0364	34940	2780			14886								
		STD	1500	0358	3494	2781	0004311	0693	14900								
		OBS	1500	0358	34944	2781			14900								

REFERENCE CTRY CODE	ID. NO.	SNIP CODE	LATITUDE °	LONGITUDE °	MARSDEN SQUARE	STATION TIME IG VIT				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NODC STATION NUMBER
						MO	DAY	HR	1/10		CRUISE NO.	STATION NUMBER			DIR	NGT	PER	SEA	TYPE	AMT	

318132	1H		5901 N	04520 W	185	95	08	17	145	1969	A15	014	2332		31	4	2		X2	016	0014
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WATER		WIND		BARO- METER (mb)	AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. (m)	DIR.	SPEED OF FORCE		DRY BULB	WET BULB			

DT	SD	29	S13	120	040	034	8	27	
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MESSENGER TIME OF HR 1/10	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\Sigma \Delta$ D DYN. M. K 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	1 CL
145	STD	0000	0611	3331	2623	0018019	0000	14733								
	OBS	0000	0611	33308	2623			14733								
004	STD	0010	0487	3385	2680	0012551	0015	14691								
	OBS	0010	0487	33852	2680			14691								
	STD	0020	0767	3433	2682	0012428	0028	14811								
	OBS	0020	0767	34331	2682			14811								
	STD	0030	0769	3451	2695	0011164	0040	14816								
	OBS	0030	0769	34507	2695			14816								
	STD	0050	0624	3457	2720	0008827	0060	14763								
	OBS	0050	0624	34568	2720			14763								
	OBS	0060	0529	34732	2745			14728								
	STD	0075	0564	3486	2751	0005950	0078	14747								
	OBS	0075	0564	34860	2751			14747								
	STD	0100	0561	3492	2756	0005507	0092	14750								
	OBS	0100	0561	34919	2756			14750								
	OBS	0120	0564	34946	2758			14755								
	STD	0125	0541	3493	2759	0005235	0106	14747								
	OBS	0125	0541	34928	2759			14747								
	STD	0150	0553	3497	2761	0005127	0119	14756								
	OBS	0150	0553	34966	2761			14756								
	STD	0200	0544	3500	2764	0004846	0144	14761								
	OBS	0200	0544	34998	2764			14761								
	STD	0250	0542	3502	2766	0004738	0168	14769								
	OBS	0250	0542	35018	2766			14769								
	STD	0300	0534	3502	2767	0004668	0191	14774								
	OBS	0300	0534	35023	2767			14774								
	OBS	0370	0520	35023	2769			14780								
	STD	0400	0515	3502	2769	0004615	0238	14782								
	OBS	0400	0515	35016	2769			14782								
	STD	0500	0493	3500	2770	0004588	0284	14790								
	OBS	0500	0493	35000	2770			14790								
	STD	0600	0462	3498	2772	0004477	0329	14793								
	OBS	0600	0462	34980	2772			14793								
	STD	0700	0431	3495	2773	0004444	0373	14797								
	OBS	0700	0431	34949	2773			14797								
	STD	0800	0420	3494	2774	0004457	0418	14809								
	OBS	0800	0420	34943	2774			14809								
	STD	0900	0404	3493	2775	0004436	0462	14818								
	OBS	0900	0404	34933	2775			14818								
	STD	1000	0391	3492	2775	0004469	0507	14830								
	OBS	1000	0391	34920	2775			14830								
	STD	1100	0382	3493	2777	0004390	0551	14843								
	OBS	1100	0382	34928	2777			14843								
	STD	1200	0382	3494	2778	0004382	0595	14859								
	OBS	1200	0382	34941	2778			14859								
	STD	1300	0373	3494	2779	0004357	0639	14873								
	OBS	1300	0373	34941	2779			14873								
	STD	1400	0366	3494	2780	0004353	0682	14886								
	OBS	1400	0366	34941	2780			14886								
	STD	1500	0356	3494	2781	0004293	0726	14899								
	OBS	1500	0356	34943	2781			14899								

REFERENCE CRUISE NO.	SHIP CODE	LATITUDE ° ' /10	LONGITUDE ° ' /10	MARSDEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'WATH	WAVE OBSERVATIONS				WEATHER CODE	CLOUD CODES		NDDC STATION NUMBER	
					10'	1'	MD		DAY	HR. /10			CRUISE NO.	STATION NUMBER	DIR.	HGT		PER	SEA		TYPE
318132	1H	5913 N	04447 W	185 94	08	17	174	1969	A15	015	2012		06	4	4		X1	0	6	0015	
					WATER		WIND		AIR TEMP. °C		BARO-METER (mba)		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS						
					COLOR CODE	TRANS. ml	DIR.	SPEED OF FORCE	DRY BULB	WET BULB	VIS. CODE										
					DT	SD	Z3	S07	122	050	031	7	28								

MESSING TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-280°	$\Sigma \Delta D$ DYN. M. $\times 10^3$	SOUND VELOCITY	D ₂ ml/l	PD ₄ -P $\mu g - ol/l$	TOTAL-P $\mu g - ol/l$	NO ₂ -N $\mu g - ol/l$	NO ₃ -N $\mu g - ol/l$	SiO ₄ -Si $\mu g - ol/l$	PH	1 C C
		STD	0000	0538	3434	2713	0009450	0000	14717								
174		OBS	0000	0538	34339	2713			14717								
		STD	0010	0524	3432	2713	0009431	0009	14713								
		OBS	0010	0524	34322	2713			14713								
004		STD	0020	0524	3436	2716	0009143	0019	14715								
		OBS	0020	0524	34362	2716			14715								
		STD	0030	0556	3444	2718	0008975	0028	14731								
		OBS	0030	0556	34435	2718			14731								
		STD	0050	0624	3455	2719	0008947	0046	14763								
		OBS	0050	0624	34552	2719			14763								
		STD	0075	0511	3458	2735	0007422	0066	14721								
		OBS	0075	0511	34581	2735			14721								
		STD	0100	0510	3471	2746	0006475	0084	14727								
		OBS	0100	0510	34710	2746			14727								
		OBS	0115	0502	34711	2747			14726								
		STD	0125	0509	3479	2752	0005888	0099	14732								
		OBS	0125	0509	34791	2752			14732								
		STD	0150	0504	3483	2756	0005577	0113	14734								
		OBS	0150	0504	34829	2756			14734								
		OBS	0175	0586	34972	2757			14774								
		STD	0200	0539	3491	2758	0005457	0141	14758								
		OBS	0200	0539	34908	2758			14758								
		OBS	0225	0606	35028	2759			14791								
		STD	0250	0582	3503	2762	0005170	0167	14785								
		OBS	0250	0582	35026	2762			14785								
		STD	0300	0586	3506	2764	0005059	0193	14795								
		OBS	0300	0586	35057	2764			14795								
		OBS	0320	0586	35057	2764			14799								
		STD	0400	0556	3504	2766	0004913	0243	14800								
		OBS	0400	0556	35044	2766			14800								
		STD	0500	0524	3502	2769	0004805	0291	14803								
		OBS	0500	0524	35022	2769			14803								
		STD	0600	0493	3500	2770	0004712	0339	14806								
		OBS	0600	0493	34999	2770			14806								
		STD	0700	0479	3499	2772	0004691	0386	14817								
		OBS	0700	0479	34994	2772			14817								
		STD	0800	0455	3498	2773	0004630	0433	14824								
		OBS	0800	0455	34977	2773			14824								
		STD	0900	0434	3496	2774	0004631	0479	14831								
		OBS	0900	0434	34956	2774			14831								
		STD	1000	0415	3495	2775	0004518	0525	14840								
		OBS	1000	0415	34953	2775			14840								
		STD	1100	0402	3495	2777	0004466	0570	14851								
		OBS	1100	0402	34951	2777			14851								
		STD	1200	0391	3495	2778	0004428	0614	14863								
		OBS	1200	0391	34950	2778			14863								
		STD	1300	0384	3495	2778	0004444	0659	14877								
		OBS	1300	0384	34948	2778			14877								
		STD	1400	0373	3495	2779	0004398	0703	14889								
		OBS	1400	0373	34947	2779			14889								
		STD	1500	0367	3495	2780	0004419	0747	14904								
		OBS	1500	0367	34945	2780			14904								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	MARS DEN SQUARE	STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLE	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		HDDC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO DAY YR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318132	1H		5922 N	044325W	185	94	06	17 191	1969	A15 016		0984		06	4	4		X2	0 6		0016
		WATER		WIND		BARO- METER		AIR TEMP. °C				NO. OBS. DEPTNS	SPECIAL OBSERVATIONS								
		COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB		VIS CODE											
		DT	SO	23	505	122	008	008	7	26											
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 - 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				
191		STD	0000	0556	3437	2713	0009431		0000	14725											
		OBS	0000	0556	34369	2713				14725											
		STD	0010	0641	3459	2720	0008788		0009	14764											
003		OBS	0010	0641	34594	2720				14764											
		STD	0020	0684	3469	2721	0008667		0018	14783											
		OBS	0020	0684	34686	2721				14783											
		STD	0030	0689	3471	2722	0008607		0026	14787											
		OBS	0030	0689	34705	2722				14787											
		STD	0050	0725	3477	2722	0008621		0044	14806											
		OBS	0050	0725	34772	2722				14806											
		OBS	0060	0709	34745	2723				14801											
		STD	0075	0738	3481	2724	0008536		0065	14815											
		OBS	0075	0738	34813	2724				14815											
		STD	0100	0498	3458	2737	0007313		0085	14720											
		OBS	0105	0464	34548	2738				14707											
		STD	0125	0377	3447	2741	0006890		0103	14672											
		OBS	0125	0377	34470	2741				14672											
		STD	0150	0417	3461	2748	0006282		0119	14695											
		OBS	0150	0417	34608	2748				14695											
		STD	0200	0531	3486	2755	0005743		0149	14754											
		OBS	0200	0531	34857	2755				14754											
		STD	0250	0539	3487	2755	0005804		0178	14766											
		OBS	0250	0539	34870	2755				14766											
		OBS	0260	0537	34893	2757				14767											
		OBS	0290	0575	34991	2760				14788											
		STD	0300	0550	3495	2760	0005392		0206	14779											
		OBS	0300	0550	34952	2760				14779											
		OBS	0315	0548	34965	2761				14781											
		OBS	0350	0569	35018	2763				14796											
		OBS	0360	0573	35020	2762				14800											
		STD	0400	0551	3500	2764	0005155		0259	14797											
		OBS	0400	0551	35003	2764				14797											
		OBS	0460	0559	35020	2764				14810											
		STD	0500	0546	3501	2765	0005170		0310	14812											
		OBS	0500	0546	35010	2765				14812											
		STD	0600	0530	3500	2766	0005138		0362	14822											
		OBS	0600	0530	35004	2766				14822											
		STD	0700	0499	3499	2769	0004955		0412	14825											
		OBS	0700	0499	34992	2769				14825											
		STD	0800	0479	3498	2771	0004907		0462	14834											
		OBS	0800	0479	34980	2771				14834											
		STD	0900	0459	3497	2772	0004875		0511	14842											
		OBS	0900	0459	34965	2772				14842											
		OBS	0940	0444	34954	2772				14842											

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	MARSDEN 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	ID. NO.					10"	1"	MO	DAY	HR, 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT			
318132	1H		59322N	044057W		185	94	08	17	217	1969	A15	017		0180		06	4	4		X4	0	6		0017
		WATER		WIND		BARO- METER		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																			
DT	SD	00	500	122	008	008	0	13																	
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-RTD	Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PD 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	0300	3101	2473	0032267	0000	14572																
	217	OBS	0000	0300	31007	2473			14572																
		STD	0010	-0018	3191	2564	0023553	0028	14443																
		OBS	0010	-0018	31906	2564			14443																
		STD	0020	-0126	3226	2596	0020490	0050	14399																
	003	OBS	0020	-0126	32259	2596			14399																
		STD	0030	-0141	3238	2606	0019531	0070	14396																
		OBS	0030	-0141	32378	2606			14396																
		STD	0050	-0158	3270	2633	0017017	0106	14395																
		OBS	0050	-0158	32698	2633			14395																
		OBS	0070	-0151	32943	2652			14406																
		STD	0075	-0106	3299	2655	0014903	0146	14428																
		OBS	0075	-0106	32990	2655			14428																
		OBS	0080	-0151	32982	2656			14408																
		STD	0100	-0100	3317	2669	0013545	0182	14438																
		OBS	0100	-0100	33168	2669			14438																
		OBS	0105	-0108	33267	2677			14436																
		OBS	0110	-0106	33280	2678			14438																
		STD	0125	-0088	3332	2681	0012397	0214	14450																
		OBS	0125	-0088	33322	2681			14450																
		STD	0150	-0066	3341	2687	0011814	0245	14465																
		OBS	0150	-0066	33408	2687			14465																

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 SAMPLES	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		
318132	1H		5449 N	053505W		186	43	08	18	205	1969	A15	018		0294		12	6	4		X4	0	6		0018
						WATER		WIND		BARO- METER		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													
						DT	SD	00	500	875	077	074	0	14											
MESSAGE TIME HR 1/10	CAS NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-RTD		Σ Δ D DYN. M. x 10 ³	SOUND VELOCITY	O ₂ ml/l	PD 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	0600	3184	2508	0028892		0000	14709															
	205	OBS	0000	0600	31839	2508				14709															
		STD	0010	0586	3188	2513	0028450		0029	14705															
		OBS	0010	0586	31878	2513				14705															
		STD	0020	0424	3261	2588	0021291		0054	14650															
	001	OBS	0020	0424	32605	2588				14650															
		STD	0030	-0017	3296	2649	0015465		0072	14462															
		OBS	0030	-0017	32963	2649				14462															
		OBS	0036	-0082	33058	2660				14434															
		OBS	0042	-0051																					
		STD	0050	0022	3317	2664	0014036		0101	14486															
		OBS	0050	0022	33173	2664				14486															
		OBS	0060	0037	33286	2673				14496															
		STD	0075	0031	3334	2678	0012773		0135	14497															
		OBS	0075	0031	33344	2678				14497															
		OBS	0080	-0047	33328	2680				14461															
		OBS	0095	0057	33475	2687				14513															
		STD	0100	0045	3347	2687	0011900		0166	14509															
		OBS	0100	0045	33468	2687				14509															
		STD	0125	-0059	3354	2697	0010883		0194	14466															
		OBS	0125	-0059	33535	2697				14466															
		STD	0150	-0023	3383	2719	0008787		0219	14491															
		OBS	0150	-0023	33830	2719				14491															

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRL NO.	MARSOEN 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. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT	
318132	1H		5429 N	05424 W		186	44	08	18	231	1969	A15	019	0226		11	6	3		X4	0 6		0019
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mbal)	ORY BULB	WET BULB											
						DT	SD	20	522	878	098	092						6	13				
MESSAGE TIME HR 1/10	CARD 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 - 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	S C						
		STD	0000	0796	3165	2467	0032782	0000	14784														
	231	OBS	0000	0796	31647	2467			14784														
		STD	0010	0766	3167	2473	0032214	0032	14774														
		OBS	0010	0766	31671	2473			14774														
	001	STD	0020	-0020	3253	2615	0018766	0058	14453														
		OBS	0020	-0020	32530	2615			14453														
		STD	0030	-0084	3290	2647	0015721	0075	14430														
		OBS	0030	-0084	32896	2647			14430														
		STD	0050	-0140	3301	2658	0014658	0106	14408														
		OBS	0050	-0140	33011	2658			14408														
		STD	0075	-0142	3313	2667	0013699	0141	14413														
		OBS	0075	-0142	33133	2667			14413														
		OBS	0085	-0142	33174	2671			14416														
		STD	0100	-0140	3322	2674	0013044	0174	14420														
		OBS	0100	-0140	33217	2674			14420														
		STD	0125	-0130	3331	2681	0012346	0206	14430														
		OBS	0125	-0130	33310	2681			14430														
		STD	0150	-0119	3342	2690	0011540	0236	14441														
		OBS	0150	-0119	33418	2690			14441														
		OBS	0165	-0097	33502	2696			14454														
		OBS	0175	-0100	33552	2700			14455														
		OBS	0195	-0084	33633	2706			14467														

REFERENCE CTRY CODE	SHIP NO.	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRL NO.	MARSOEN SQUARE		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
						10°	1°	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	
318132	1H		5417 N	05450 W		186	44	08	19	012	1969	A15	020	0190		11	4	3		X6	0 6	0020
						WATER		WIND		AIR TEMP. °C				VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS						
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	BARO- METER (mbal)	DRY BULB	WET BULB										
						DT	SD	20	518	881	095	090						4	10			
MESSAGE TIME HR 1/10	CARD 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 - 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	S C					
		STD	0000	0788	3177	2478	0031734	0000	14783													
	012	OBS	0000	0788	31773	2478			14783													
		STD	0010	0786	3177	2478	0031729	0032	14783													
		OBS	0010	0786	31772	2478			14783													
		STD	0020	0173	3238	2592	0020958	0058	14538													
	001	OBS	0020	0173	32378	2592			14538													
		STD	0030	-0057	3276	2635	0016865	0077	14440													
		OBS	0030	-0057	32759	2635			14440													
		STD	0050	-0135	3299	2656	0014810	0109	14410													
		OBS	0050	-0135	32993	2656			14410													
		OBS	0065	-0148	33068	2662			14408													
		STD	0075	-0149	3309	2664	0014026	0145	14409													
		OBS	0075	-0149	33088	2664			14409													
		STD	0100	-0145	3318	2672	0013291	0179	14417													
		OBS	0100	-0145	33183	2672			14417													
		STD	0125	-0142	3326	2678	0012700	0211	14423													
		OBS	0125	-0142	33259	2678			14423													
		STD	0150	-0132	3335	2685	0012010	0242	14433													
		OBS	0150	-0132	33351	2685			14433													

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY MOON	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER	
CTRY CODE	IO. NO.					10"	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318132		1H	5407 N	05507 W		186	45	08	19	031	1969	A15	021	0184		11	3	3		X6	0	6	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											
						DT	SD	30	S23	927	092	087	7	12									
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 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						
031		STD	0000	0811	3183	2480	0031608		0000	14792													
		OBS	0000	0811	31832	2480				14792													
001		STD	0010	0816	3187	2481	0031446		0032	14796													
		OBS	0010	0816	31865	2481				14796													
		OBS	0015	0385	31915	2537				14623													
		STD	0020	0162	3236	2591	0021024		0058	14533													
		OBS	0025	0002	32623	2621				14465													
		STD	0030	-0096	3270	2631	0017177		0077	14421													
		OBS	0030	-0096	32701	2631				14421													
		STD	0050	-0146	3298	2655	0014896		0109	14405													
		OBS	0050	-0146	32978	2655				14405													
		STD	0075	-0147	3314	2668	0013671		0145	14411													
		OBS	0075	-0147	33135	2668				14411													
		OBS	0085	-0139	33176	2671				14417													
		OBS	0090	-0142	33184	2672				14416													
		STD	0100	-0140	3323	2676	0012922		0178	14420													
		OBS	0100	-0140	33233	2676				14420													
		STD	0125	-0126	3337	2686	0011876		0209	14432													
		OBS	0125	-0126	33373	2686				14432													
		OBS	0140	-0114	33521	2698				14443													

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DUTY MOON	MARSDEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO BDTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER	
					10"	1'	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE		AMT
318132	1H	5355 N	05525 W		186	35	08	19	051	1969	A15	022	0166		30	3	2		X1	0	6	0022
					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	30	S15	927	091	086	8	09									
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 $\mu\text{g} - \text{at/l}$	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	S C					
051		STD	0000	0641	3159	2483	0031252	0000	14722													
		OBS	0000	0641	31588	2483			14722													
001		STD	0010	0635	3165	2489	0030757	0031	14722													
		OBS	0010	0635	31646	2489			14722													
		STD	0020	0101	3246	2603	0019878	0056	14507													
		OBS	0020	0101	32462	2603			14507													
		STD	0030	-0117	3269	2631	0017191	0075	14411													
		OBS	0030	-0117	32691	2631			14411													
		STD	0050	-0144	3290	2648	0015530	0108	14405													
		OBS	0050	-0144	32896	2648			14405													
		STD	0075	-0154	3306	2662	0014220	0145	14407													
		OBS	0075	-0154	33061	2662			14407													
		STD	0100	-0145	3320	2673	0013199	0179	14417													
		OBS	0100	-0145	33195	2673			14417													
		STD	0125	-0138	3329	2680	0012505	0211	14426													
		OBS	0125	-0138	33286	2680			14426													
		OBS	0130	-0130	33397	2689			14432													

REFERENCE		SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	MARSSEN SQUARE	STATION TIME (GMT)				YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER 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		TYPE	AMT	

318132	1H	5343 N	05548 W	186	35	08	19	073	1969	A15	023	0101		20	3	2		X1	0	6		0023
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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 RULR	WET RULR			

DT	SD	22	S18	995	118	098	8	07	
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MESSENGER TIME OF HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_t	$\frac{\Delta \rho}{\rho}$ DYN. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ol/l}$	TOTAL-P $\mu\text{g} - \text{ol/l}$	NO ₂ -N $\mu\text{g} - \text{ol/l}$	NO ₃ -N $\mu\text{g} - \text{ol/l}$	SiO ₄ -Si $\mu\text{g} - \text{ol/l}$	pH	ST C
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		STD	0000	0896	2846	2204	0057934	0000	14781								
073		OBS	0000	0896	28458	2204			14781								
		STD	0010	0541	3102	2450	0034418	0046	14676								
		OBS	0010	0541	31017	2450			14676								
		STD	0020	0168	3206	2567	0023334	0075	14531								
001		OBS	0020	0168	32061	2567			14531								
		STD	0030	-0061	3244	2609	0019270	0096	14434								
		OBS	0030	-0061	32443	2609			14434								
		STD	0050	-0084	3257	2620	0018222	0134	14428								
		OBS	0050	-0084	32568	2620			14428								
		STD	0075	-0125	3272	2634	0016899	0178	14416								
		OBS	0075	-0125	32722	2634			14416								
		OBS	0095	-0141	32898	2648			14414								

19-29 October 1969, prepared from NODC Listing No. 31-1564

REFERENCE	SNP CODE	LATITUDE ° ' / 10"	LONGITUDE ° ' / 10"	UNIT METER	M ² /RSN SQUARE	STATION TIME (GMT)	YEAR	ORIGINATOR'S CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS	WEA- THER CODE	CLOUD CODES	NOSC STATION NUMBER		
CHET CODE	ID. NO.				10" 1"	MO DAY HR./10						DIR. HGT PER SEA		TYPE AMT			
311564	WE	53426N	05548 W		186 35 10	19 191	1969	ICG		0108				X1 7 6	0038		
					WATER		WIND		AIR TEMP. °C		VIS. CODE		ND. OBS. DEPTHS		SPECIAL OBSERVATIONS		
					COLOR CODE	TRANS INI	DIR.	SPEED OR FORCE	BARO-METER (mb)	DRY BULB	WET BULB						
							02	516	927	017	000	7	05				
MESSAGE TIME HR	CAST NO. 1/10	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY - tσ-t₀ × 10³	Σ Δ D DTWN., M. x 10³	SOUND VELOCITY	D₂ ml/l	PD₄-P μg - at/l	TOTAL-N μg - at/l	NO₃=N μg - at/l	NO₂=N μg - at/l	Si O₄-Si μg - at/l	pH	S.C.
		STD	0000	0244	3158	2523	0027504	0000	14555								
193	OBS	0000	0244	3158	2523				14555								
	STD	0010	0246	3157	2522		0027595	0028	14558								
193	OBS	0010	0246	3157	2522				14558								
	STD	0020	0245	3168	2531		0026756	0055	14560								
193	OBS	0025	0242	3174	2536				14561								
	STD	0030	0234	3181	2542		0025691	0081	14559								
	STD	0050	0204	3203	2562		0023812	0130	14552								
193	OBS	0050	0204	3203	2562				14552								
	STD	0075	0172	3218	2576		0022458	0188	14544								
193	OBS	0075	0172	3218	2576				14544								

REFERENCE		SNP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DRAFT METER	W/RSQEN SQUARE		STATION TIME (GMT)			YEAR	ORIGINATOR'S		DEPTH TO EDTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES	NDDC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY	HR./10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER				SEA
311564	WE		5355 N	05525 W		186	35 10	19	211	1969		2CG	0100		03			3	X1	7 5		0039
						WATER		WIND		BARD- METER		AIR TEMP. °C		VIL CODE		ND. DBS. DEPTHS		SPECIAL OBSERVATIONS				
						COLOR CODE	TRANS. m	DIR.	SPEED OR FORCE	DRY BULB		WET BULB										
									03	S16	934	012	-006	7	05							
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY- σ_{θ}		$\Sigma \Delta \rho$ OBS. $\times 10^3$	SOUND VELOCITY	D ₂ m/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	S C				
		STD	0000	0218	3217	2572	0022842		0000	14552												
214		OBS	0000	0218	3217	2572				14552												
		STD	0010	0217	3217	2572	0022837		0023	14553												
214		OBS	0010	0217	3217	2572				14553												
		STD	0020	0207	3219	2574	0022616		0046	14551												
214		OBS	0025	0196	3222	2577				14547												
		STD	0030	0175	3232	2587	0021413		0068	14540												
		STD	0050	0087	3264	2618	0018440		0107	14508												
214		OBS	0050	0087	3264	2618				14508												
		STD	0075	-0028	3291	2646	0015806		0150	14463												
214		OBS	0075	-0028	3291	2646				14463												

REFERENCE		SNIP CODE	LATITUDE ° ' / 10	LONGITUDE ° ' / 10	DRAFT FOOT	W/RSDEN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF SAMPLES	WAVE OBSERVATIONS				WEA- THER CODE	CLOUD CODES		NDOC STATION NUMBER	
CTRY CODE	ID. NO.					10"	1"	MO	DAY		HR.1/10	CRUISE NO.			STATION NUMBER	DIR.	HGT	PER		SEA	TYPE		AMT
311564	WE	5411 N	05500 W		186	45	10	19	230	1969		3CG	0173		34			2	X6	7	8		0040
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	DRY BULB		WET BULB											
									34	S21	926	014			08								
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. K 10 ³		SOUND VELOCITY	O ₂ ml/l	PD ₄ -P μ g - σ /l	TOTAL-P μ g - σ /l	NO ₂ -N μ g - σ /l	NO ₃ -N μ g - σ /l	SiO ₄ -Si μ g - σ /l	pH	S C C			
		STO	0000	0213	3226	2579		0022124		0000		14551											
233		OBS	0000	0213	3226	2579						14551											
233		OBS	0009	0212	3228	2581						14552											
		STO	0010	0211	3229	2582		0021892		0022		14552											
		STO	0020	0183	3237	2591		0021055		0043		14542											
233		OBS	0023	0168	3240	2594						14537											
		STO	0030	0087	3260	2615		0018747		0063		14504											
233		OBS	0045	-0039	3290	2645						14453											
		STO	0050	-0058	3294	2649		0015467		0098		14446											
233		OBS	0068	-0108	3305	2660						14427											
		STO	0075	-0122	3307	2662		0014240		0135		14422											
233		OBS	0091	-0135	3316	2669						14420											
		STO	0100	-0122	3329	2680		0012539		0168		14429											
233		OBS	0114	-0104	3344	2691						14442											
		STO	0125	-0092	3352	2697		0010868		0197		14450											
233		OBS	T0137	-0082	3356	2700						14458											

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDEX	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
CTRY CODE	ID. NO.					10°	1°		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT	

311564	WE	5417 N	05450 W	186	44	10	20	008	1969	4CG	0190		34			3	X1	7	7	0041
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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 OF FORCE		DRY BULB	WET BULB			

			34	521	926	014	006	7	09
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MESSENGER 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. $\times 10^3$	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 ₂ -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	S
		STD	0000	0130	3257	2610	0019227	0000	14518								
012	085	0000	0130	0130	3257	2610			14518								
012	085	0009	0131	0131	3257	2610			14520								
	STD	0010	0131	0131	3261	2613	0018929	0019	14521								
	STD	0020	0132	0132	3289	2635	0016805	0037	14527								
012	085	0022	0132	0132	3293	2639			14528								
	STD	0030	0087	0087	3298	2645	0015854	0053	14509								
012	085	0045	0035	0035	3305	2654			14489								
	STD	0050	0034	0034	3307	2655	0014883	0084	14490								
012	085	0067	0032	0032	3312	2660			14493								
	STD	0075	-0013	-0013	3315	2664	0014039	0120	14474								
012	085	0090	-0066	-0066	3319	2670			14452								
	STD	0100	-0067	-0067	3320	2670	0013421	0154	14454								
012	085	0114	-0068	-0068	3324	2674			14456								
	STD	0125	-0076	-0076	3331	2680	0012534	0187	14455								
012	085	T0137	-0082	-0082	3338	2686			14455								
	STD	0150	-0082	-0082	3346	2692	0011353	0217	14458								
012	085	T0161	-0082	-0082	3353	2698			14461								

REFERENCE		SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DATE INDEX	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
CTRY CODE	ID. NO.					10°	1°		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		TYPE	AMT	

311564	WE	5428 N	05423 W	186	44	10	20	020	1969	5CG	0227		06			4	X7	8	6	0042
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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 OF FORCE		DRY BULB	WET BULB			

			22	533	914	006	-006	7	10
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MESSENGER 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. $\times 10^3$	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 ₂ -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	S
		STD	0000	0112	3259	2613	0018968	0000	14510								
034	085	0000	0112	0112	3259	2613			14510								
034	085	0008	0112	0112	3257	2611			14511								
	STD	0010	0108	0108	3258	2612	0019022	0019	14510								
034	085	0018			3262												
	STD	0020	0090	0090	3268	2621	0018156	0038	14505								
	STD	0030	0072	0072	3293	2642	0016149	0055	14502								
034	085	0036			3305												
	STD	0050	0035	0035	3323	2668	0013667	0085	14493								
034	085	0056	0024	0024	3328	2673			14489								
	STD	0075	0124	0124	3334	2672	0013314	0118	14538								
034	085	0077	0134	0134	3335	2672			14543								
034	085	0098	-0068	-0068	3320	2671			14453								
	STD	0100	-0066	-0066	3321	2671	0013386	0152	14454								
034	085	0124	-0042	-0042	3327	2675			14470								
	STD	0125	-0041	-0041	3328	2676	0012944	0185	14471								
034	085	T0147	-0020	-0020	3338	2683			14486								
	STD	0150	-0014	-0014	3340	2684	0012106	0216	14489								
034	085	T0174	0060	0060	3356	2693			14529								

REFERENCE		SHIP	LATITUDE	LONGITUDE	STATION TIME		YEAR	ORIGINATOR'S		DEPTH	MAX. DEPTH	WAVE				WEA-	CLOUD	NODC				
CITY	IO.	CODE	1/10	1/10	10"	1"	MO	DAY	HR.1/10	CRUISE	STATION	TO	DIR.	HGT	PER	SEA	THER	TYPE	AMT	STATION		
CODE	NO.									NO.	NUMBER	BOTTOM					CODE			NUMBER		
311564	WE		54435N	05358 W	186	43 10	23	009	1969	6CG		0393				06			3	X1	8 1	0044
					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												
							22		S16	080	-003	-022	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 σ 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	0212	3359	2686	0012031		0000	14569												
012		OBS	0000	0212	3359	2686				14569												
		STD	0010	0214	3360	2687	0011952		0012	14571												
		STD	0020	0216	3362	2687	0011880		0024	14574												
012		OBS	0024	0217	3362	2688				14575												
		STD	0030	0236	3365	2689	0011770		0036	14585												
012		OBS	0046	0280	3373	2691				14608												
		STD	0050	0292	3375	2692	0011478		0059	14614												
012		OBS	0069	0324	3384	2696				14632												
		STD	0075	0324	3386	2698	0010943		0087	14633												
012		OBS	0092	0314	3389	2701				14632												
		STD	0100	0307	3389	2702	0010582		0114	14630												
012		OBS	0114	0280	3389	2704				14621												
		STD	0125	0231	3398	2715	0009277		0139	14603												
012		OBS	0136	0198	3406	2724				14591												
		STD	0150	0204	3414	2730	0007866		0160	14597												
012		OBS	0181	0232	3431	2742				14617												
		STD	0200	0270	3442	2747	0006325		0196	14638												
012		OBS	0226	0308	3454	2753				14661												
		STD	0250	0324	3460	2757	0005501		0225	14672												
012		OBS	T0272	0338	3464	2758				14682												
		STD	0300	0348	3466	2759	0005325		0252	14691												
012		OBS	0319	0362	3470	2761				14701												
012		OBS	0348	0396	3479	2765				14721												

REFERENCE CTRY CODE	SHIP CODE	LATITUDE * 1/10	LONGITUDE * 1/10	DUTY ROSTER	'SOEN 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
311564	WE	5452 N	05340 W		186	43	10	23	025	1969	7CG	0768	06				3	X1	8 6			0045
					WATER		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											
							22		S10	081	011	-014	7	12								
MESSAGE TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T		SPECIFIC VOLUME ANOMALY- σ_t		$\Sigma \Delta \sigma$ OBS. M. $\times 10^3$	SOUND VELOCITY	O ₂ ml/l	PO ₄ -P $\mu\text{g} - \text{ml/l}$	TOTAL-P $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	NO ₃ -N $\mu\text{g} - \text{ml/l}$	SiO ₄ -Si $\mu\text{g} - \text{ml/l}$	pH	S C			
		STD	0000	0370	3410	2712		0009501		0000	14644											
028		OBS	0000	0370	3410	2712					14644											
		STD	0010	0380	3413	2714		0009386		0009	14650											
		STD	0020	0391	3416	2715		0009289		0019	14657											
028		OBS	0021	0392	3416	2715					14657											
		STD	0030	0407	3418	2715		0009282		0028	14665											
028		OBS	0042	0419	3419	2714					14673											
		STD	0050	0419	3419	2715		0009319		0047	14674											
028		OBS	0063	0420	3420	2715					14677											
		STD	0075	0434	3423	2716		0009226		0070	14685											
028		OBS	0084	0444	3425	2717					14691											
		STD	0100	0258	3411	2723		0008533		0092	14612											
028		OBS	0104	0236	3407	2722					14603											
		STD	0125	0293	3439	2743		0006706		0111	14635											
028		OBS	0126	0295	3440	2743					14637											
		STD	0150	0319	3453	2751		0005905		0127	14653											
028		OBS	0168	0335	3460	2755					14663											
		STD	0200	0363	3464	2756		0005532		0155	14681											
		STD	0250	0394	3471	2758		0005412		0183	14703											
028		OBS	0254	0396	3471	2758					14705											
		STD	0300	0405	3476	2761		0005163		0209	14717											
028		OBS	0342	0412	3480	2764					14727											
		STD	0400	0418	3479	2763		0005147		0261	14739											
		STD	0500	0423	3478	2761		0005384		0313	14758											
028		OBS	T0529	0424	3478	2761					14763											
028		OBS	T0560	0424	3486	2767					14769											

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

311564 WE 5457 N 05327 W 186 43 10 23 052 1969 8CG 1682 22 3 X1 7 6 0046

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			

22 S10 090 011 -014 7 15

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. $\times 10^3$	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	T C
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		STD	0000		3411												
056		OBS	0000	03420	3411	27160											
		STD	0010		3412												
056		OBS	0019	0377	3415	2716				14651							
		STD	0020	0383	3416	2716	0009189			14653							
		STD	0030	0426	3422	2716	0009171			14674							
056		OBS	0035	0437	3425	2717				14680							
056		OBS	0049	0430	3432	2724				14680							
		STD	0050	0428	3432	2724	0008452			14679							
056		OBS	0068	0410	3434	2727				14675							
		STD	0075	0421	3436	2728	0008085			14681							
		STD	0100	0459	3445	2731	0007876			14702							
056		OBS	0101	0460	3445	2731				14703							
		STD	0125	0368	3455	2748	0006201			14670							
056		OBS	0133	0350	3458	2752				14664							
		STD	0150	0367	3466	2757	0005386			14675							
056		OBS	0192	0402	3479	2764				14698							
		STD	0200	0408	3480	2764	0004798			14702							
056		OBS	0249	0435	3483	2764				14722							
		STD	0250	0435	3483	2764	0004905			14722							
		STD	0300	0429	3487	2768	0004577			14728							
056		OBS	T0356	0424	3492	2772				14736							
		STD	0400	0421	3492	2772	0004240			14742							
056		OBS	T0464	0416	3492	2773				14751							
		STD	0500	0413	3492	2773	0004251			14755							
056		OBS	T0572	0408	3491	2773				14765							
		STD	0600	0408	3491	2773	0004367			14770							
056		OBS	T0689	0406	3491	2773				14784							
		STD	0700	0406	3491	2773	0004440			14786							
		STD	0800	0401	3492	2774	0004440			14800							
		STD	0900	0395	3492	2775	0004433			14814							
056		OBS	T0915	0394	3492	2775				14816							
		STD	1000	0387	3491	2775	0004494			14828							
056		OBS	T1017	0386	3491	2775				14830							

REFERENCE CTRY CODE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	OBS INCHES	A. SGEN 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
					10"	1"	MO	DAY	HR.1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

311564	WE	5506 N	05300 W		186	53	10	23	105	1969		9CG		2560		22			3	X1	8	2	0047
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WATER		WIND		BARO- METER (mba)	AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS
COLOR CODE	TRANS. M1	DIR.	SPEED OR FORCE		DRY BULB	WET BULB			

			22	S12	093	006	-017	7	14	
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MESSNGR 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 $\mu\text{g} - \text{at/l}$	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	S C
		STD	0000	0480	3442	2726	0008202	0000	14694								
111		OBS	0000	0480	3442	2726			14694								
		STD	0010	0480	3442	2726	0008217	0008	14696								
		STD	0020	0481	3442	2726	0008231	0016	14698								
111		OBS	0028	0481	3442	2726			14699								
		STD	0030	0481	3442	2726	0008247	0025	14700								
		STD	0050	0482	3442	2726	0008276	0041	14703								
111		OBS	0057	0482	3442	2726			14704								
		STD	0075	0462	3450	2734	0007490	0061	14700								
		OBS	0085	0450	3455	2740			14697								
		STD	0100	0427	3463	2749	0006171	0078	14691								
111		OBS	0113	0412	3469	2755			14688								
		STD	0125	0411	3472	2757	0005352	0092	14690								
		STD	0150	0408	3476	2761	0005050	0105	14693								
111		OBS	0170	0406	3480	2764			14696								
		STD	0200	0415	3485	2767	0004497	0129	14706								
111		OBS	0227	0420	3488	2769			14713								
		STD	0250	0415	3488	2769	0004353	0151	14714								
		STD	0300	0407	3487	2769	0004384	0173	14719								
111		OBS	0340	0404	3486	2769			14724								
		STD	0400	0411	3489	2771	0004354	0217	14738								
111		OBS	0450	0415	3491	2772			14748								
		STD	0500	0412	3491	2773	0004300	0260	14755								
		STD	0600	0405	3492	2774	0004281	0303	14769								
111		OBS	0680	0399	3492	2775			14779								
		STD	0700	0397	3492	2775	0004277	0346	14782								
		STD	0800	0386	3491	2775	0004302	0389	14794								
		STD	0900	0379	3490	2775	0004377	0432	14807								
111		OBS	0910	0378	3490	2775			14809								
		STD	1000	0375	3490	2776	0004395	0476	14823								
		STD	1100	0373	3491	2776	0004421	0520	14838								
111		OBS	1130	0372	3491	2777			14843								
		STD	1200	0372	3491	2777	0004465	0565	14855								
		STD	1300	0370	3492	2777	0004496	0609	14871								
111		OBS	1360	0368	3492	2778			14880								
		STD	1400	0366	3492	2778	0004500	0654	14886								
		STD	1500	0359	3492	2779	0004471	0699	14900								
111		OBS	1700	0339	3493	2781			14925								

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	TIME MO DAY HR, 1/10	YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NOOC STATION NUMBER
CTRY CODE	10. NO.						CRUISE NO.	STATION NUMBER			DIR	HGT	PER		SEA	TYPE	
311564	WE	5531 N	05226 W	186521023	1651969		106		3232		18			3	X2	6 8	0048
WATER		WIND		BARO- METER		AIR TEMP. °C		VIL CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS							
COLOR CODE	TRANS (m)	DIR.	SPEED OR FORCE	(mb)	DRY BULB	WET BULB											
		18	S12	064		-017	-008	14									
MESSAGING TIME OF 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 - 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	3 C
		STD	0000	0611	3428	2699	0010749	0000	14746								
162		OBS	0000	0611	3428	2699			14746								
		STD	0010	0611	3428	2699	0010788	0011	14747								
		STD	0020	0610	3427	2699	0010826	0022	14749								
162		OBS	0025	0610	3427	2698			14749								
		STD	0030	0611	3427	2698	0010883	0032	14751								
162		OBS	0049	0616	3426	2697			14756								
		STD	0050	0615	3426	2697	0010986	0054	14755								
		STD	0075	0534	3436	2715	0009338	0080	14728								
162		OBS	0075	0534	3436	2715			14728								
		STD	0100	0360	3466	2758	0005275	0098	14664								
162		OBS	0100	0360	3466	2758			14664								
		STD	0125	0384	3474	2762	0004932	0111	14679								
162		OBS	0149	0400	3480	2765			14690								
		STD	0150	0400	3480	2765	0004661	0123	14691								
162		OBS	0198	0410	3484	2767			14703								
		STD	0200	0410	3484	2767	0004519	0146	14704								
		STD	0250	0401	3485	2768	0004436	0168	14708								
162		OBS	0298	0394	3485	2769			14713								
		STD	0300	0394	3485	2769	0004373	0190	14714								
162		OBS	0396	0380	3485	2771			14723								
		STD	0400	0380	3485	2771	0004319	0234	14724								
		STD	0500	0380	3486	2772	0004322	0277	14741								
162		OBS	0594	0379	3487	2773			14756								
		STD	0600	0378	3487	2773	0004328	0320	14757								
		STD	0700	0370	3487	2773	0004365	0363	14770								
162		OBS	0794	0364	3486	2773			14783								
		STD	0800	0364	3486	2773	0004421	0407	14784								
		STD	0900	0357	3486	2774	0004463	0452	14798								
162		OBS	T0996	0354	3485	2774			14812								
		STD	1000	0354	3485	2774	0004547	0497	14813								
		STD	1100	0355	3486	2774	0004598	0543	14830								
		STD	1200	0355	3486	2774	0004648	0589	14847								
162		OBS	1202	0355	3486	2774			14847								
		STD	1300	0357													
		STD	1400	0361													
162		OBS	1498	0365													

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	1/2°/25DN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
					10"	1"	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

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			
		18	S20	035	056	047	7	08	

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ O DTN. M. x 10 ³	SOUND VELOCITY	D 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 OC
		STD	0000	0219	3327	2660	0014508	0000	14567								
170		OBS	0000	0219	3327	2660			14567								
		STD	0010	0249	3346	2672	0013300	0014	14585								
		STD	0020	0279	3364	2684	0012184	0027	14602								
		STD	0030	0308	3381	2695	0011150	0038	14618								
170		OBS	0045	0349	3404	2710			14641								
		STD	0050	0364	3409	2712	0009560	0059	14649								
		STD	0075	0433	3435	2726	0008310	0081	14686								
		STD	0100	0492	3457	2737	0007321	0101	14718								
		STD	0125	0543	3476	2746	0006513	0118	14745								
170		OBS	0140	0569	3486	2750			14760								
		STD	0150	0569	3487	2751	0006034	0134	14761								
		STD	0200	0568	3489	2753	0005938	0164	14769								
		STD	0250	0567	3491	2754	0005842	0193	14777								
		STD	0300	0566	3493	2756	0005747	0222	14785								
170		OBS	0369	0564	3495	2758			14796								
		STD	0400	0561	3495	2759	0005652	0279	14800								
		STD	0500	0551	3496	2760	0005596	0335	14813								
		STD	0600	0538	3497	2763	0005491	0391	14824								
170		OBS	T0600	0538	3497	2763			14824								
		STD	0700	0523	3497	2765	0005393	0445	14835								
		STD	0800	0506	3498	2767	0005272	0499	14845								
170		OBS	T0883	0490	3498	2769			14852								
		STD	0900	0486	3498	2770	0005108	0551	14853								
170		OBS	T0979	0470	3497	2771			14860								
		STD	1000	0466	3497	2771	0005034	0601	14861								
		STD	1100	0453	3496	2772	0005046	0652	14873								
170		OBS	1175	0448	3495	2772			14883								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	1/2°/25DN SQUARE		STATION TIME (GMT)		YEAR	ORIGINATOR'S		DEPTH TO BOTTOM	MAX. DEPTH OF S'PL'S	WAVE OBSERVATIONS			WEA- THER CODE	CLOUD CODES		NDDC STATION NUMBER
					10"	1"	MO	DAY		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA	TYPE	AMT	

MISSISSIPPI TIME HR	CAST NO.	CARD TYPE	DEPTH (m)	T °C	S %	SIGMA-T	SPECIFIC VOLUME AND DENSITY	S A D DYN. AL. X 10 ³	SOUND VELOCITY	D 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
1/10																

MESSAGE TIME HR 1/10	CARD NO.	CARD TYPE	DEPTH (m)	T °C	S ‰	SIGMA-T	SPECIFIC VOLUME ANOMALY-σ _t ?	Σ Δ O DTN. M. x 10 ³	SOUND VELOCITY	D 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 OC
		STD	0000	-0070	3159	2541	0025799	0000	14413								
142		OBS	0000	-0070	3159	2541			14413								
142		OBS	0009	-0067	3159	2541			14416								
		STD	0010	-0064	3162	2543	0025581	0026	14418								
		STD	0020	-0028	3189	2563	0023631	0050	14440								
142		OBS	0024	-0012	3200	2572			14450								
		STD	0030	0011	3218	2585	0021570	0073	14464								
142		OBS	0047	0090	3274	2626			14510								
		STD	0050	0113	3289	2637	0016690	0111	14523								
142		OBS	0071	0241	3368	2691			14594								
		STD	0075	0255	3374	2694	0011260	0146	14602								
142		OBS	0095	0310	3399	2709			14632								
		STD	0100	0320	3404	2712	0009567	0172	14638								
142		OBS	0119	0348	3415	2718			14655								

REFERENCE	SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	A. JOSEN 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		
311564	WE	5940 N	04354 W	185	93	10	28	121	1969		206		0152		32			2	X7	6 8		0054		
					WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE	NO. OBS. DEPTHS	SPECIAL OBSERVATIONS									
					COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	(mba)	DRY BULB	WET BULB													
								32	508	209	006	-003	7	07										
MESSNGR TIME OF 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 $\mu\text{g} \cdot \text{ml}^{-1}$	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	S C C							
		STD	0000	0013	3222	2588	0021285	0000	14460															
125		OBS	0000	0013	3222	2588			14460															
125		OBS	0009	0092	3289	2638			14507															
		STD	0010	0101	3294	2641	0016240	0019	14512															
		STD	0020	0174	3339	2672	0013283	0034	14552															
125		OBS	0023	0190	3348	2679			14561															
		STD	0030	0193	3349	2679	0012661	0046	14564															
125		OBS	0047	0212	3359	2686			14576															
		STD	0050	0220	3363	2688	0011806	0071	14581															
125		OBS	0070	0268	3386	2703			14608															
		STD	0075	0280	3390	2705	0010258	0099	14615															
125		OBS	0093	0318	3402	2711			14636															
		STD	0100	0329	3407	2714	0009423	0123	14642															
125		OBS	0117	0350	3418	2721			14656															

REFERENCE		SHIP CODE	LATITUDE ° 1/10	LONGITUDE ° 1/10	DEPT METER	A. JOSEN 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	
CTRY CODE	IO. NO.					10"	1"	MO	DAY	HR. 1/10		CRUISE NO.	STATION NUMBER			DIR.	HGT	PER		SEA	TYPE		AMT
311564	WE		59005N	04500 W	185	95	10	29	002	1969		058		2060		18			4	X2	7 8	0057	
						WATER		WIND		BARO- METER		AIR TEMP. °C		VIS. CODE		NO. OBS. DEPTHS		SPECIAL OBSERVATIONS					
						COLOR CODE	TRANS. (m)	DIR.	SPEED OR FORCE	mbal		DRY BULB	WET BULB	VIS. CODE		NO. OBS. DEPTHS							
									18	521	024	067	056	7	12								
MESSNGR TIME OF 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 $\mu\text{g} \cdot \text{ml}^{-1}$	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	S C C						
		STD	0000	0552	3488	2754	0005559	0000	14730														
005		OBS	0000	0552	3488	2754			14730														
005		OBS	0005	0551	3488	2754			14730														
		STD	0010	0554	3488	2754	0005595	0006	14732														
005		OBS	0010	0554	3488	2754			14732														
		STD	0020	0552	3486	2752	0005735	0011	14733														
005		OBS	0020	0552	3486	2752			14733														
		STD	0030	0553	3487	2753	0005685	0017	14735														
005		OBS	0030	0553	3487	2753			14735														
005		OBS	0040	0552	3488	2754			14736														
		STD	0050	0552	3488	2754	0005625	0028	14738														
005		OBS	0050	0552	3488	2754			14738														
		STD	0075	0556	3487	2753	0005780	0043	14744														
005		OBS	0075	0556	3487	2753			14744														
		STD	0100	0562	3490	2754	0005660	0057	14751														
005		OBS	0100	0562	3490	2754			14751														
		STD	0125	0547	3492	2758	0005366	0071	14749														
		STD	0150	0533	3494	2761	0005083	0084	14748														
005		OBS	0150	0533	3494	2761			14748														
		STD	0200	0510	3497	2766	0004653	0108	14747														
005		OBS	0200	0510	3497	2766			14747														
005		OBS	0249	0503	3496	2766			14752														

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

311564 WE 5900 N 04523 W 185 95 10 29 1969 059 2340 08 4 X 7 6 0058

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			

22 525 516 047 02R 7 14

MESSAGE 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 ₄ -P μg - ml/l	TOTAL-P μg - ml/l	NO ₃ -N μg - ml/l	NO ₃ -N μg - ml/l	SiO ₂ -Si μg - ml/l	pH	3 CL
		STD	0000	0554	3485	2751	0005807	0000	14730								
029		OBS	0000	0554	3485	2751			14730								
		STD	0010	0554	3486	2752	0005760	0006	14732								
		STD	0020	0554	3487	2753	0005713	0012	14734								
029		OBS	0025	0554	3487	2753			14735								
		STD	0030	0555	3487	2753	0005708	0017	14736								
		STD	0050	0556	3486	2752	0005822	0029	14739								
029		OBS	0050	0556	3486	2752			14739								
		STD	0075	0555	3488	2754	0005693	0043	14743								
029		OBS	0075	0555	3488	2754			14743								
		STD	0100	0558	3488	2753	0005762	0057	14749								
029		OBS	0100	0558	3488	2753			14749								
		STD	0125	0551	3492	2757	0005413	0071	14751								
		STD	0150	0546	3495	2760	0005162	0085	14753								
029		OBS	0150	0546	3495	2760			14753								
		STD	0200	0541	3497	2762	0005033	0110	14759								
029		OBS	0205	0539	3497	2763			14760								
		STD	0250	0503	3495	2765	0004782	0135	14752								
		STD	0300	0474	3494	2768	0004580	0158	14748								
029		OBS	0300	0474	3494	2768			14748								
		STD	0400	0452	3495	2771	0004365	0203	14756								
029		OBS	0400	0452	3495	2771			14756								
		STD	0500	0425	3493	2773	0004312	0246	14761								
		STD	0600	0403	3491	2773	0004310	0289	14768								
029		OBS	T0605	0402	3479P	2764P											
		STD	0700	0386	3490	2774	0004285	0332	14777								
		STD	0800	0375	3489	2775	0004324	0375	14789								
029		OBS	T0800	0375	3489	2775			14789								
		STD	0900	0374	3489	2775	0004394	0419	14805								
		STD	1000	0372	3489	2775	0004464	0463	14821								
029		OBS	1005	0372	3489	2775			14822								
		STD	1100	0371	3491	2777	0004389	0507	14838								
029		OBS	1199	0370	3492	2778			14854								
		STD	1200	0370	3492	2778	0004389	0551	14854								
		STD	1300	0364	3493	2779	0004347	0595	14869								
		STD	1400	0355	3493	2780	0004273	0638	14882								
029		OBS	1433Q	0367	3495	2780											
		STD	1500	0342	3494	2782	0004137	0680	14893								
029		OBS	1502	0342	3494	2782			14893								
046		OBS	1907Q	0333	3491	2780											
046		OBS	2288Q	0266	3492	2787											

REFERENCE	SHIP CODE	LATITUDE 1/10	LONGITUDE 1/10	DUTY NO.	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			
					SOURCE			CRUISE NO.	STATION NUMBER			DIR.	HGT	PER	SEA		TYPE	AMT				
					10"	1"														MO	DAY	HR. 1/10
311564	WE	5838 N	04616 W	185	86	10	29	095	1969	060	2420	24			2	X1	8	6	0059			
					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	S37	100	031	017	7	17								
MESSNGR TIME HR 1/10	CST 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 ₃ -N μg - dl/l	SiO ₄ -Si μg - dl/l	pH	3 C			
		STD	0000	0550	3488	2754		0005536		0000	14729											
103		OBS	0000	0550	3488	2754					14729											
		STD	0010	0550	3488	2754		0005549		0006	14731											
		STD	0020	0550	3488	2754		0005562		0011	14732											
103		OBS	0026	0550	3488	2754					14733											
		STD	0030	0551	3488	2754		0005582		0017	14734											
		STD	0050	0554	3488	2754		0005644		0028	14739											
103		OBS	0053	0554	3488	2754					14739											
		STD	0075	0553	3488	2754		0005672		0042	14743											
103		OBS	0080	0553	3488	2754					14743											
		STD	0100	0557	3489	2754		0005694		0056	14748											
103		OBS	0107	0558	3489	2754					14750											
		STD	0125	0550	3494	2759		0005252		0070	14750											
		STD	0150	0536	3498	2764		0004820		0083	14749											
103		OBS	0160	0530	3499	2765					14749											
		STD	0200	0498	3497	2768		0004514		0106	14742											
103		OBS	0213	0490	3496	2768					14741											
		STD	0250	0482	3496	2769		0004465		0128	14743											
		STD	0300	0473	3496	2770		0004419		0151	14748											
103		OBS	0319	0470	3496	2770					14750											
		STD	0400	0460	3496	2771		0004382		0195	14759											
103		OBS	0426	0456	3496	2772					14762											
		STD	0500	0435	3494	2772		0004351		0238	14765											
		STD	0600	0412	3493	2774		0004264		0281	14772											
103		OBS	T0640	0405	3492	2774					14775											
		STD	0700	0397	3491	2774		0004307		0324	14782											
		STD	0800	0386	3491	2775		0004339		0367	14794											
103		OBS	T0854	0382	3490	2775					14801											
		STD	0900	0380	3490	2775		0004381		0411	14808											
		STD	1000	0377	3491	2776		0004397		0455	14823											
103		OBS	T1068	0374	3491	2776					14834											
		STD	1100	0373	3491	2776		0004406		0499	14839											
		STD	1200	0370	3492	2777		0004418		0543	14854											
103		OBS	1283	0366	3492	2778					14866											
		STD	1300	0365	3492	2778		0004404		0587	14869											
		STD	1400	0357	3493	2779		0004342		0631	14882											
		STD	1500	0348	3493	2781		0004264		0674	14896											
131		OBS	1608	0501P	3500P	2770P																
103		OBS	T1612	0336	3494	2782					14909											
		STD	1750	0312	3494	2785		0003939		0776	14923											
		STD	2000	0274	3493	2787		0003684		0872	14949											
131		OBS	T2130	0257	3492	2788					14964											
131		OBS	T2357	0232	3491	2789					14992											

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