

RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY ( le Type '004' )

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH <i>in bytes</i> NUMBER	17. ATTR (FORTE)	18. USE
<u>File Header Record</u>				
File Type	1	3	A3	"004" constant
Track Number	4	6	6A1	NODC (in-house Identifier)
Record Type	10	1	A1	"1" File Header Record,
Vessel	11	11	11A1	(left aligned)
Cruise	22	6	6A1	Originator's Cruise Identifier
Cruise Dates	28	17	5(I2,A1) I2	XX/XX/XX-XX/XX/XX Beginning Month, Day, Year; Ending Month, Day, Year
Senior Scientist	45	19	19A1	(left aligned)
Investigator	64	17	17A1	Responsible Institution (left aligned)

RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004") 2/5

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER			
<u>First Station Header Record</u>					
File Type	1	3		A3	"004" (constant)
Track Number	4	6		6A1	NODC (in-house) Identifier
Record Type	10	1		A1	"2" (First Station Header Record)
Sequence	11	3		I2	Sequence of this record type within station. (Leading zeros or leading blanks.)
Station	14	5		5A1	Station Identifier
Latitude	19	6		3I2	Degrees, Minutes, Seconds
Lathem	25	1		A1	Hemisphere "N" or "S"
Longitude	26	7		I3, 2I2	Degrees, Minutes, Seconds
Lonhem	33	1		A1	Hemisphere "W" or "E"
Time	34	3		I3	GMT in hour to tenths
Date	37	8		2(I2,A1), I2	XX/XX/XX Station Date; Month, Day, Year
Bottom	45	5		I5	Water Depth, meters to tenths
Navigation	50	2		I2	(See attached codes)
Method	52	1		I1	(See attached codes)
Blank	53	28		28X	Blank

# RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH <i>in bytes</i>		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER			
<u>Second Station Header Record</u>					
File Type	1	3		A3	"004" (constant)
Track Number	4	6		6A1	NODC (in-house) Identifier
Record Type	10	1		A1	"3" (Second Station Header Record)
Sequence	11	3		I3	Sequence of this record type within station. (Leading zeros or leading blanks.)
Station	14	5		5A1	Station Identifier
Barometer	19	3		I3	Pressure in millibars to tenths
Dry Bulb	22	4		I4	Air temperature; degrees Celsius to tenths
Wet Bulb	26	4		I4	Air temperature; degrees Celsius to tenths
Wind Direction	30	2		I2	WMO code 0877; tens of degrees
Wind Speed	32	2		I2	Knots
Sea Direction	34	2		I2	WMO code 0885; tens of degrees
Sea Height	36	1		A1	WMO code 1555
Swell Direction	37	2		I2	WMO code 0885
Swell Height	39	1		A1	WMO code 1555
Weather	40	1		I1	WMO code 4501
Cloud Type	41	1		A1	WMO code 0500
Cloud Cover	42	1		I1	WMO code 2700
Visibility	43	1		I1	WMO code 4300
Transparency	44	4		I4	Secchi Disk Depth; meters to tenths
Turbidity Code	48	1		I1	(See attached codes)
Blank	49	37		37X	Blank

## RECORD FORMAT DESCRIPTION

FILE NAME: WATER PHYSICS and CHEMISTRY (File Type "004")

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1. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH in bytes		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER			
<u>Data Record</u>					
File Type	1	3		A3	"004" (constant)
Track Number	4	6		6A1	NODC (in-house) Identifier
Record Type	10	1		A1	"4" (Data Record)
Sequence	11	3		I3	Sequence of this record type within station. (Leading zeros or leading blanks.)
Station	14	5		5A1	Station Identifier
Depth	19	4		I4	Sample Depth; to tenths
Temperature	23	5		I5	Water Temp.; degrees Celsius to thousandths
Salinity	28	5		I5	Salinity; parts per thousand to thousandths
Sigma-T	33	4		I4	Sigma-t to hundredths
Transmissivity	37	3		I3	Transmissivity; percent to tenths
pH	40	3		I3	pH to hundredths
eH	43	4		I4	eH to hundredths
Oxygen	47	4		I4	Dissolved; hundredths to ml./liter
Ammonia	51	3		I3	Tenths of microgram (ug)-atoms/liter
Nitrite	54	3		I3	Hundredths of ug-atoms/liter
Nitrate	57	4		I4	Hundredths of ug-atoms/liter
Silicate	61	4		I4	Hundredths of ug-atoms/liter
Phosphate	65	3		I3	Inorganic; hundredths of ug-atoms/liter
Solids	68	4		I4	Suspended solids in hundredths of mg./liter



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14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN <small>(e.g., bit, bytes)</small>	16. LENGTH		17. ATTRIBUTES <small>(FORTRAN)</small>	18. USE AND MEANING
		in bytes			
		NUMBER			
<i>Data Record (cont'd)</i>					
Turbidity	72	4		I4	Turbidity; in hundredths of mg./liter
Chlorophyll	76	5		I5	Chlorophyll; in hundredths of mg./meter <sup>3</sup>

Special Code

Water Physics and Chemistry

NAVIGATION

- 01 = Loran (mixed or unspecified)
- 02 = Radar and/or fixes
- 03 = Raydist without complications
- 04 = Raydist with errors, drifting, etc.
- 05 = Satellite
- 06 = Omega
- 07 = Loran A only
- 08 = Loran C only

TURBIDITY CODE

- 1 = Turbidometer; in JTU
- 2 = Transmissometer; in percent of light transmission over a 10 path.
- 3 = Fluorometer; suspended solids calibration

METHOD CODE

- 1 = STD (Salinity, Temperature, and Depth recorder)
- 2 = XBT (Expendable Bathythermograph)
- 3 = Nansen Cast
- 4 = MBT (Mechanical Bathythermograph)

TRACK TR1458 TR1464

CODING INSTRUCTIONS

NODC COUNTRY-CRUISE REFERENCE NO. 720385, WRITER LWA DATE \_\_\_\_\_

CHECKED BY \_\_\_\_\_ DATE \_\_\_\_\_ ; APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

SOURCE MATERIAL (AUTHOR, TITLE, VOLUME, PART, PAGE, ETC.)

Photo copies of Reduced Data Sheets. The entire data batch - 720385 - consists of 4 sub-data sets (cruise) of 3628 observations. A File Header Record should be encoded for each individual cruise. Although there is only one (1) batch, a set of coding instructions are provided for each of the four (4) sub-data sets.

NODC PUB. M-2 IS TO BE USED IN CONJUNCTION WITH THESE INSTRUCTIONS  
(General instructions begin on Page 2)

INSTR. NO.	SPECIAL INSTRUCTIONS
#1	If any entry is made in any data field, on the Data Records, prefix zeros (0) where necessary to fill that particular field. If no entry is to be made, leave field blank. Do not suffix zeros.
#2	Do not code decimal points, they are understood.
#3	Those depths, temperatures and salinities on the Data Records enclosed in parenthesis are considered doubtful values and should be coded as such (e.g., a "Q" should be coded in the last columns of that particular field. EX. Temp. of (3.94) should be coded as 03.94Q.)
#4	When coding Longitude, a zero should be prefixed to fill that field.

Supplemental Sheet for 720385

<u>Acces. No.</u>	<u>Vessel</u>	<u>Orig. Cr. Identification</u>	<u>Dates of Operation</u>	<u># Obs.</u>	<u>Institution</u>
72-0385	MYERS	A	11/02/53-11/02/53	18	U.S.C.G.S.
↓	STIRNI		02/29/52-03/20/52	198	U.S.C.G.S.
	NELSON		11/05/51-11/25/52	1674	U.S.C.G.S.
	BOWEN		06/25/51-07/28/62	<u>1738</u>	U.S.C.G.S.
				3628	



DONOT CODE

REDUCED DATA

STATION ID            CANO A ←

VESSEL MISSIE S. MEYERS

DATE 2 XI 53 ← 4 R.

TIME 0635 ← DR. TIDAL REF BAKWER

DEPTH 18' DATA BT 1510 NAN X R            OTHER BKT

LAT 39° ° 12.3' N

LONG 075° ° 12.1' W

72-0385

WEATHER CC BAR 30.13

WIND W 1-15 SPD 1 SEA 1

AIR WET            DRY           

TRANSPAR            W 6'

SECOND-STATION HEADER INFO

DEPTH (FEET)	DEPTH (METERS)	TEMPERATURE (SEMI)	SALINITY	DENSITY (SIGMA T)	SOUND VELOCITY	OXYGEN	O <sub>2</sub> SAT.	DATA	TDS
0	0	59.0	15.0					BKT	
5	1.5	0	0						
10	3.0	.1	15.7						
15	4.6	.2	15.1						
20	6.1	.2	15.1						
25	7.6	.3	15.2						
30	8.0	.3	15.2						

DEPTH 5 59.4 15.2 23.73

Temp

SAL.

Density

Oxygen



CODING INSTRUCTIONS FOR CRUISE NO. 720385

## File Header Record

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Constant entry of "004"
Acces. Number	4-9	-----	Enter "720385" on each File Header Record
Record Type	10	-----	Constant entry of "1"
Vessel Orig. Cr. ID	11-21	-----	Enter "MYERS " (left justified)
Dates of Oper.	22-27	-----	Leave blank
Senior Scien.	28-44	-----	Enter as given from supplemental sheet
Institution	45-63	-----	Leave blank
	64-80	-----	Enter "U.S.C.G.S."

CODING INSTRUCTIONS FOR CRUISE NO. 720385

First - Station  
Header Record

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3		Constant entry of "004"
Access. Number	4-9		Enter "720385" on each Station Header Record
Record Type	10		Constant entry of "2"
Record Seq.	11-13		Constant entry of "001"
Orig. Sta. No.	14-18		Enter as given (right justified)
Latitude	19-24	Table #2	Using Table #2, convert tenths of minutes to seconds and enter converted Latitude
Hemisphere	25		Enter "N" throughout cruise
Longitude	26-32	Table #2	Using Table #2 convert tenths of minutes to seconds and enter converted Longitude (see special instructions #4)
Hemisphere	33		Enter "W" throughout cruise
Time (GMT)	34-36	Tables #4 & 2	Time is given in EST and should be converted to GMT using Table #4. The first two digits are hours, and the last two digits are minutes. Use #2 to convert minutes to tenths of hours. (EX. 0635 should be coded as 115 ). When more than one time is given code the earliest hour
Station Date	37-44		Enter as given, except where conversion to GMT changes the day. Convert month to numeric code (e.g., Feb=02, etc.)
Water Depth	45-49	Table #6	Water Depth is recorded in feet under "Depth." Use Table #6 to convert feet to meters and enter converted depth.
	50-80		Leave blank



CODING INSTRUCTIONS FOR CRUISE NO. 720385Second - Station  
Header Record

see note (\*) before coding this record.

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Constant entry of "004"
Acces. Number	4-9	-----	Enter "720385" on each Station Header Record
Record Type	10	-----	Constant entry of "3"
Record Seq.	11-13	-----	Constant entry of "001"
Orig. Sta. No.	14-18	-----	Enter as given (right justified)
Bar. Press.	19-21	Table #18	Recorded under "Bar." in inches of mercury. Use Table #18 to convert inches to millibars and enter tens, units and tenths as converted
AirTemp Dry	22-25	Table #20	Recorded under "Air: Dry." In some instances temperature is given in degrees Celsius, and in other instances it is given in degrees Fahrenheit. When the temperature is suffixed by the letter "C," enter that temperature as given. When the "C" is not suffixed the temperature is in degrees Fahrenheit and should be converted to Celsius using Table #20 (prefix any necessary zeros to fill the field; do not suffix zeros)
AirTemp Wet	26-29	Table #20	Recorded under "Air: Wet." Use the same procedure as given for Air Temp. Dry
Wind Dir.	30-31	Table #9	Both Wind Direction and Speed are recorded under "Wind." The Wind Direction is recorded in points (NE; N; E; NNW; etc.) and should be converted to code using Table #9
Wind Speed	32-33	-----	Enter as given (prefix any necessary zeros)
	34-35	-----	Leave blank
Sea Height	36	-----	Recorded under "Sea," enter as given
	37-39	-----	Leave blank
Weather	40	-----	Recorded under "Weather" in a two digit code. Record only the significant digit, dropping the prefixed zeros (EX. given as 01; code 1)





CODING INSTRUCTIONS FOR C

720385

## Data Records

ITEM	CARD COL. NO.	M-2 TABLE NO.	INSTRUCTIONS
File Type	1-3	-----	Constant entry of "004"
Acces. Number	4-9	-----	Enter "720385" on each Data Record
Record Type	10	-----	Constant entry of "4"
Record Seq.	11-13		Enter "001" on first Data Record and number subsequent Data Records consecutively. Prefix zeros where necessary (e.g. 001;002;003;etc.)
Orig. Sta. no.	14-18	-----	Enter as given; prefix necessary zeros.
	SPECIAL NOTE		In the third column from the right on the form to be coded is a heading "Data". Under that heading, three types of data are recorded -- BKT,NAN,and BT. Do not code those depths or information with "BT" in the data column.
			Code only the data designated as either "BKT" or "NAN".
Depth	19-22	-----	Depths are given in both feet and meters. Enter as given, those depths recorded under "Depth (meters)".
Temp.	23-27	-----	Temperatures are given in both Fahrenheit and Celcius. Enter as given, those temperatures recorded under "temperature ("cent)". Prefix any necessary zeros. DO NOT suffix zeros.
Salinity	28-32	-----	Enter as given
	33-46	-----	Leave blank
Oxygen	47-50	-----	Recorded under "Oxygen". Enter as given; Prefix any necessary zeros.
	51-80	-----	Leave blank