Cruise # 31924 M C022	ACCESSION NUMBER	8100441

DDI= A:4:03

DATA DOCUMENTATION FORM

TR6824

NOAA FORM 24-13
(4-72)

U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEANOGRAPHIC DATA CENTER
RECORDS SECTION
ROCKVILLE, MARYLAND 20852

FORM APPROVED
O.M.B. No. 41-R2651

F022

This form should accompany all data submissions to NODC. Section A, Originator Identification, must be completed when the data are submitted. It is highly desirable for NODC to also receive the remaining pertinent information at that time. This may be most easily accomplished by attaching reports, publications, or manuscripts which are readily available describing data collection, analysis, and format specifics. Readable, handwritten submissions are acceptable in all cases. All data shipments should be sent to the above address.

A. ORIGINATOR IDENTIFICATION

THIS SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

1. NAME AND ADDRESS OF INSTITUTION, LABORATORY, OR ACTIVITY WITH WHICH SUBMITTED DATA ARE ASSOCIATED

DATA MANAGEMENT
INSTITUTE OF MARINE SCIENCE
UNIVERSITY OF ALASKA
FAIRBANKS, ALASKA 99701

2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT

ACONA 286

4. PLATFORM NAME(S)	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)	6. PLATFORM AND OPERATOR NATIONALITY(IES)		7. DATES	
		PLATFORM	OPERATOR	FROM: MO/DAY/YR	TO: MO/DAY/YR
R/V ACONA	SHIP	USA	USA	09/04/79	09/11/79

8. ARE DATA PROPRIETARY?

[X] NO [ ] YES

IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ____ MONTH ____

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

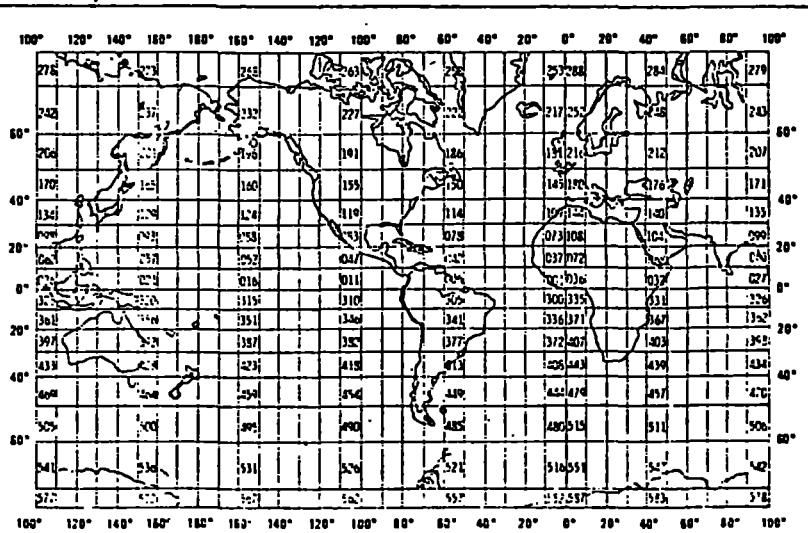
[ ] NO [X] YES [ ] PART *(SPECIFY BELOW)*

10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER *(AND ADDRESS IF OTHER THAN IN ITEM-1)*

DATA MANAGEMENT, IMS
CYDNEY HANSEN
(907) 479-7836 (907) 479-7074

11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.

GENERAL AREA



B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
SALINITY	0.001 °/₀₀	NANSEN BOTTLES & PLESSEY STD	DESCRIPTION OF BASIC PROCESSING ATTACHED	N/A
TEMPERATURE	°C	DSR THERMOMETERS & PLESSEY STD	"	N/A
DEPTH	o.1m (1m = 1db)	THERMOMETRIC DEPTH & PLESSEY STD	"	N/A

C. DATA FORMAT

COMPLETE THIS SECTION FOR PUNCHED CARDS OR TAPE, MAGNETIC TAPE, OR DISC SUBMISSIONS.

1. LIST RECORD TYPES CONTAINED IN THE TRANSMITTAL OF YOUR FILE
GIVE METHOD OF IDENTIFYING EACH RECORD TYPE

THREE RECORD TYPES WITHIN FILE TYPE 22

Designated by byte 10:

"1" for Text Record
"2" for Master Record
"3" for Detail Record

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

File 22, STD/CTD: 0 to 99,999 Text records, followed by

1 Master record, Followed by

0 to 99,999 Detail records

Repeats

3. ATTRIBUTES AS EXPRESSED IN ☐ PL-1 ☐ ALGOL ☐ COBOL ☒ FORTRAN ☐ _____ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Cydney Hansen, (907)479-7836

ADDRESS Institute of Marine Science, Univ. of Alaska, Fairbanks, Alaska 99701

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

5. RECORDING MODE
☐ BCD ☐ BINARY
☐ ASCII ☒ EBCDIC
☐ _____

6. NUMBER OF TRACKS (CHANNELS)
☐ SEVEN
☒ NINE
☐ _____

7. PARITY
☒ ODD
☐ EVEN

8. DENSITY
☐ 200 BPI ☐ 1600 BPI
☐ 556 BPI
☒ 800 BPI
☐ _____

9. LENGTH OF INTER-RECORD GAP (IF KNOWN)
☐ 3/4 INCH
☒ .5 inch - 0.6 inch

10. END OF FILE MARK
☐ OCTAL 17
☒ octal 23

11. PASTE-ON-PAPER LABEL DESCRIPTION *(INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)*

289 022 286IMS
ACONA 286
09/04/79 - 09/11/79
Stations: 29-65,67-75. Dr. Royer
9trk,800BPI,EBCDIC,NO LABEL,ODD PARITY

12. PHYSICAL BLOCK LENGTH IN BYTES
5-120 bytes/block

13. LENGTH OF BYTES IN BITS
8 bits/byte

RECORD FORMAT DESCRIPTION

RECORD NAME STD RECORD FORMAT DESCRIPTION, FILE TYPE 22

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN _____ (e.g., bits, bytes)	16. LENGTH NUMBER	16. LENGTH UNITS	17. ATTRIBUTES	18. USE AND MEANING
FILE TYPE "22" AS DESIGNATED BY OCSEP AND NODC. THERE ARE NO INTENDED DEVIATIONS FROM THIS TYPE, EXCEPT: 1. Col.45-49 Depth in meters (I5 to 1/10ths) 2. Col.50-53 Salinity in 0/00 (I4 to 1/100ths)					

IMS STD/CTD DATA REDUCTION

NOVEMBER 1979

STDCP

Raw, 7 or 9-track magnetic tapes from 8400 or 8114 Plessey Digitizers are input along with conversion equations specific for each sensor. These equations reflect the latest calibration or factory compliance data. If the FISH contains a conductivity sensor, it is converted to salinity by a relation based on the work of A.S. Bennett (DSR, Vol. 23, No. 2, February 1976).

Output of this program is on 9-track tape and includes entered header data and all STD values on the 7-track tape. Output from this program is input for STDAV.

STDCP PRINT OUT

1) Print out the "FISH" serial number and the equations used to convert frequency to parameters for each FISH used.
2) If conductivity ratios are converted to salinities at this point, the conversion routines are printed out.
3) Input from 7 or 9-track and output to 9-track is documented. (This includes all headers, end of files, and record number indicators).

CALVAL

Periods from a frequency counter, taken at the time discrete samples were taken, is input along with raw temperature and conductivity data from the discrete samples. Each set of such data constitute one field correction.

All of the field corrections are listed along with mean values for standard deviations for temperature and salinity. Generally, values for temperature and salinity are rejected if they fall beyond two standard deviations from the mean.

Subjective judgments as to the quality of the field correction data is made at this time.

Output from this program provides input for STDAV.

IES STD/CTD DATA REDUCTION
NOVEMBER 1979

STDAV

Data from STDCP and CALVAL are input with header information which includes individual station position, time and weather.

STDAV checks each parameter to insure it falls within sensor limits. Parameters are grouped into one meter intervals (1 m = 1 db) and averaged. Field corrections are added to the one meter averages. (NOTE: depths, and their related data values, are accepted for inclusion in averaging, if and only if, depth N is greater than or equal to depth N + 1).

STDAV PRINT OUT

STDAV print out will include the following in addition to header and data:

1) All header information and corrected data in one meter intervals.
2) Field corrections used, to include mean and standard deviation for each parameter.
3) Flags indicating interpolated (#) and/or extrapolated (E) data are printed with associated data values.
4) Pertinent comments are solicited from the responsible principle investigator and attached to the final print out.

STDAV OUTPUT TAPE

A tape with one meter averages for Depth, Salinity, Temperature, Sigma-T, and Delta-D/per station is generated for data storage and further analysis.

NODC-F

This program is used to convert the output tape from STDAV (IES STD final format) to an NODC formatted tape for submission to NODC to fulfill contractual obligations.

```
.FRCDIC.F120.C1600.
TO OT IF. FSA OT. DUMP OT 150.

L CORE NEEDED ******

OPY IN TO OT   1 FILE.

*     1 CONTAINED          5724 RECORDS

OPIED IN TO OT   1 FILE.
.P OT          15 RECORDS.
LF NUMBER   1

    1  360362362362 370366311324 342361100100 100362371343 310305100311     022286IMS1   29THE I
   21  325342343311 343344343305 100326306100 324301331311 325305100342     NSTITUTE OF MARINE S
   41  303311305325 303305100311 342100331305 342327326325 342311302323     CIENCE IS RESPONSIBL
   61  305100306326 331100343310 311342100304 301343301100 346310311303     E FOR THIS DATA WHIC
   81  31.100346301 342100303324 323323305303 343305304100 100100100100     H WAS COLLECTED
  101  100100100100 100100100100 100100100100 100100100100 100100100361                                   1

    2  360362362362 370366311324 342361100100 100362371301 302326301331     022286IMS1   29ABOAR
   21  304100343310 305100331341 345100301303 326325301100 302305343346     D THE R/V ACONA BETW
   41  305305325100 360371140360 364140367371 100343326100 360371140361     EEN 09-04-79 TO 09-1
   61  3611-0367371 100302350100 304331113100 331326350305 331100100100     1-79 BY DR. ROYER
   81  100100100100 100100100100 100100100100 100100100100 100100100100
  101  100100100100 100100100100 100100100100 100100100100 100100100362                                   2

    3  360362362362 370366311324 342361100100 100362371326 306100343310     022286IMS1   29OF TH
   21  300100311325 342343311343 344343305100 326306100324 301331311325     E INSTITUTE OF MARIN
   41  305100342303 311305325303 305113100100 100100100100 100100100100     E SCIENCE.
   61  100100100100 100100100100 100100100100 100100100100 100100100100
  101* 100100100100 100100100100 100100100100 100100100100 100100100363                                   3

    4  360362362362 370366311324 342361100100 100362371343 310305331305     022286IMS1   29THERE
   21  100346305331 305100301100 343326343301 323100326306 100364366100     WERE A TOTAL OF 46
   41  342343301343 311326325342 100311325100 343310305100 327331311325     STATIONS IN THE PRIN
   61  303305100346 311323323311 301324100342 304141307344 323306100326     CE WILLIAM SD/GULF O
   81  305100301323 301342325301 100301331305 301113100100 100100100100     F ALASKA AREA.
  101  100100100100 100100100100 100100100100 100100100100 100100100364                                   4

    5  360362362362 370366311324 342361100100 100362371342 343301343311     022286IMS1   29STATI
   21  344342342100 301331305100 100100100362 371140366365 153366367140     ONS ARE   29-65,67-
   41  367365113327 331326302323 305324342100 346305331305 100305325303     75.PROBLEMS WERE ENC
   61  326344525343 305331305304 100346311343 310100342343 301343311326     OUNTERED WITH STATIO
```



```
   81  325342100363 370153363371 153364360153 364361113100 100100100100     NS 38,39,40,41.
  101  100100100100 100100100100 100100100100 100100100100 100100100365                                   5

    6  360362362362 370366311324 342361100100 100362371342 343304100324     022286IMS1   29STD M
   21  324304305323 100371360364 360153100342 305331311301 323100325344     ODEL 9040, SERIAL NU
   41  324302305331 100365363364 361100346301 342100344342 305304113100     MBER 5341 WAS USED.
   61  305330344301 343311326325 342100344342 305304100343 326100307305     EQUATIONS USED TO GE
   81  325305331301 343305100100 100100100100 100100100100 100100100100     NERATE
  101  100100100100 100100100100 100100100100 100100100100 100100100366                                   6

    7  360362362362 370366311324 342361100100 100362371327 301331301324     022286IMS1   29PARAM
   21  305343305331 342100304331 326324100306 331305330344 305325303350     ETERS FROM FREQUENCY
   41  100306326323 323326346140 100100100100 100100100100 100100100100      FOLLOW-
   61  100100100100 100100100100 100100100100 100100100100 100100100100
  101* 100100100100 100100100100 100100100100 100100100100 100100100367                                   7

    8  360362362362 370366311324 342361100100 100362371100 100100100100     022286IMS1   29
   21  100100100100 100100100100 100100100100 100100100100 100100100100
  101* 100100100100 100100100100 100100100100 100100100100 100100100370                                   8

    9  360362362362 370366311324 342361100100 100362371100 100100100100     022286IMS1   29
   21  100100100100 100100100100 100342176115 342140364371 371365113360                        S=(S-4995.0
   41  304360135134 360113364364 361361365366 304140363100 116362366113     D0)*3.441156D-3 +26.
   61  360304360100 100100100100 100100100100 100100100100 100100100100     0D0
   81  100100100100 100100100100 100100100100 100100100100 100100100100
  101  100100100100 100100100100 100100100100 100100100100 100100100371                                   9

   10  360362362362 370366311324 342361100100 100362371100 100100100100     022286IMS1   29
   21  100100100100 100100100100 100342176115 342140362361 362367113360                        T=(T-2127.0
   41  304360135134 360113367371 360371304140 362100140100 362113360304     D0)*1.7909D-2 - 2.0D
   61  360100100100 100100100100 100100100100 100100100100 100100100100     0
   81  100100100100 100100100100 100100100100 100100100100 100100100100
  101  100100100100 100100100100 100100100100 100100100100 100100361360                                  10

   11  360362362362 370366311324 342361100100 100362371100 100100100100     022286IMS1   29
   21  100100100100 100100100100 100304176115 304140371367 361363113371                        D=(D-9713.9
   41  304360135134 360113371365 361367367366 366304360100 100100100100     D0)*0.9517766D0
   61  100100100100 100100100100 100100100100 100100100100 100100100100
  101* 100100100100 100100100100 100100100100 100100100100 100100361361                                  11

   12  360362362362 370366311324 342361100100 100362371100 100100100100     022286IMS1   29
   21  100100100100 100100100100 100100100100 100100100100 100100100100
  101* 100100100100 100100100100 100100100100 100100100100 100100361362                                  12
```

D. INSTRUMENT CALIBRATION

This calibration information will be utilized by NOAA's National Oceanographic Instrumentation Center in their efforts to develop calibration standards for voluntary acceptance by the oceanographic community. Identify the instruments used by your organization to obtain the scientific content of the DDF (i.e., STD, temperature and pressure sensors, salinometers, oxygen meters, velocimeters, etc.) and furnish the calibration data requested by completing and/or checking ("✓") the appropriate spaces. Add the interval time (i.e., 3 months, 6 months, 9 months, etc.) if the fixed interval calibration cycle is checked.

INSTRUMENT TYPE (MFR., MODEL NO.)	DATE OF LAST CALIBRATION	INSTRUMENT WAS CALIBRATED BY		CHECK ONE: INSTRUMENT IS CALIBRATED					INSTRUMENT IS NOT CALIBRATED
		YOUR ORGANIZATION (√)	OTHER ORGANIZATION (GIVE NAME)	AT FIXED INTERVALS (√)	BEFORE OR AFTER USE (√)	BEFORE AND AFTER USE (√)	ONLY AFTER REPAIR (√)	ONLY WHEN NEW (√)	(√)
PLESSEY STD MODEL 9040	2/79		NRCC	1 YEAR					

NOTE: ALL STD OR CTD UNITS ARE FIELD CORRECTED BY COMPARISON WITH DISCRETE SAMPLES TO INCREASE ACCURACY OVER STANDARD LABORATORY CALIBRATION.

4/3/80

TAPE ASSIGNMENT SHEET

ACCESSION NO: 81 00441

TYPE OF TAPE	TAPE NUMBER	LABEL	LRECL	BLKSIZE	RECFM	REMARKS
ORIGINATOR	W2126	NL	120	600	FB	800 BPI
	OCSE28	NL	120	6000	FB	1600 BPI
DUPLICATE	000788	SL	120	120	F	
REFORMATTED						
FIRST USER	CBS-. F022T6824	SL	120	VB	VB	4779 ~~5724~~ RECORDS
FINAL USER	DMNOE * MPD75. F022T6824	SL	120	VB	VB	4779 ~~5724~~ RECORDS

945 UNNECESSARY REMOVED TYPE 1 RECORDS DELETED

Error Correction Documentation Form

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 81 00441

1) File Type: OZZ

2) Project Ident.: CCSEAF

3) Track Nos.: 6824

I. Error Corrections as reported to Principal Investigator:

Error	Correction Completed (Check)

II. Additional error corrections:

Error	Correction Completed (Check)
~~Atmos. press. recoded in wrong columns. Corrected.~~	~~5/14/81~~
SYSIN has been corrected. Orig atmos pressure put back in. 8/3/81.	

III. Processor Name: Charle B. Leckie

DATA SET FILE SHEET

Accession No. 81 004441

TR6824

Step Operations	Completion Date	Init.	Tape No.	No. of Files	BLKSIZE	LRECL
Originator Tape No. 6.2126	3/9/81	IJ	CCSE28	1	6000	120
QUADI Duplicate Tape #	3-19-81	JD	000788	1	120	120
DDF Evaluation						
Quality Review						
Preliminary Data Sort						
Preliminary Check						
First User Tape #	CBS-. F022T6824	CBS	5/14/81	1	~~120~~ VB	120
Final User Tape #	DMNGEK MP075, F022T6824	CBS	5/15/81	1	VB	120
Final Check						
NAPIS Inventory						
DIP Inventory						
Data Set 'Finalized'						

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
ENVIRONMENTAL DATA SERVICE

NATIONAL OCEANOGRAPHIC DATA CENTER

September 11, 1981 OA/D781/SJH

TO: RD/MPF24 - Dean Dale

FROM: OA/D781 - Sid Halminski

SUBJECT: OCSEAP File Type 022 STD, TR6824

Please find enclosed a copy of our parameter check run for File Type 022 STD for Dr. Royer, RU 289. The file ID is 286IMS corresponding to NODC track number TR6824.

Only one set of text records (record type 1) is necessary for the one data set. Forty-six stations (29-75) each had 21 identical text records. All were removed but the first 21 text records. The text states that problems were encountered with stations 38-41, however, no changes were made to the data in these stations.

The data set is considered final processed and will be entered into the OCSEAP data base. However, it is requested that a review of the actual range values be made for each parameter in the check list for accuracy. Please notify me if any corrections are required.

Enclosure

cc: W. Fischer
M. Crane
T. Royer (w/enclosure)

```
@ED.QU DM5120*CBS-.F022T6824.SEL45.
ED 16R1-THU-05/14/81-11:01:33-(0.1)
EDIT
LINES:5724 ASCII


@USE IN.SEL45.
READY


@USE SYSIN.PRINT-OUT.
READY


@ASG.T SORTIN.
READY


@XQT DMNOE*IPLABS.MUL
NSDCHEK *** NON-STANDARD DATA FIELD CHECKING PROGRAM
THIS IS 01/11/79 VERSION WITH FULL CODE CHECKING

USER'S INPUT REQUESTS FOLLOW:
LRECL HAS BEEN SPECIFIED AS 120
STATION HEADER RECORD SPECIFIED AS 2
RECORD TYPE WILL BE TAKEN FROM COLUMN 10 OF THE INPUT RECORDS
FILETYPE IS 022
RECORD TYPES FLAGGED FOR RETRIEVAL ARE - 12345
STATION STARTS IN POSITION  11 FOR  5 BYTES
STATION WILL APPEAR ON RECORD TYPES : 12345

NO OBVIOUS ERRORS FOUND IN TABLE GENERATION PHASE - SUCCESSFUL EXECUTION EXPECTED
**********************************************************************************************************
022TR68241    29THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
   ??????
FIRST FILE ID
**********************************************************************************************************
022TR68241    29THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241    30THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241    31THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241    32THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241    33THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
```

```
022TR68241   34THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
       ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*************************************************************************************************************
022TR68241   35THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
       ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*************************************************************************************************************
022TR68241   36THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
       ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*************************************************************************************************************
022TR68241   37THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
       ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*************************************************************************************************************
022TR68241   38THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
       ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
```

```
**********************************************************************************************************
022TR68241   39THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   40THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   41THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   42THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   43THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   44THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   45THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   46THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   47THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   48THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   49THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   50THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   51THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
022TR68241   52THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                1
      ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**********************************************************************************************************
```

```
022TR68241   53THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   54THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   55THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   56THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   57THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   58THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   59THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   60THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   61THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   62THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   63THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   64THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   65THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   67THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
**************************************************************************************************************
022TR68241   68THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
```

```
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   69THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   70THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   71THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   72THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   73THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   74THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
*****************************************************************************************************************
022TR68241   75THE INSTITUTE OF MARINE SCIENCE IS RESPONSIBLE FOR THIS DATA WHICH WAS COLLECTED                    1
        ?????
STATION NUMBER HAS CHANGED WITHOUT A MASTER
THE FIELDS BELOW WERE CHECKED AS FOLLOWS(S=SIGN/B=BLANK/T=TAXONOMIC CODE/N=NUMERICS/M=MANDATORY NUMERIC/Z=NO CHECKING
```

T	R	POS	LEN	NAME	RANGE TESTED LOW	RANGE TESTED HIGH	ACTUAL RANGE LOWEST	ACTUAL RANGE HIGHEST	MEAN	FP	FP-1	>-1
Z	1	11	5	STATION NUMBER						966		
Z	1	16	100	TEXT						828		
N	1	116	5	SEQUENCE NUMBER 1.	00001	99999	1	21	11.00	966	0	0
Z	2	11	5	STATION NUMBER						46		
M	2	16	2	LAT DEG 1.	40	89	58	60	58.93	46	0	0
M	2	18	4	LAT MIN .01	0000	5999	120	5990	3219.39	46	0	0
C	2	22	1	0500 LAT HEMISPHERE						46		
M	2	23	3	LON DEG 1.	050	179	146	149	147.54	46	0	0
M	2	26	4	LON MIN .01	0000	5999	480	5770	2779.71	46	0	0
C	2	30	1	0501 LON HEMISPHERE						46		
Z	2	31	10	TEXT						46		
N	2	41	5	COUNT OF SCANS 1.	00001	99999	58	1526	510.06	46	0	0
M	2	46	2	DATE YEAR 1.	75	80	79	79	79.00	46	0	0
M	2	48	2	DATE MONTH 1.	01	12	9	9	9.00	46	0	0
M	2	50	2	DATE DAY 1.	01	31	7	11	8.54	46	0	0
M	2	52	2	DATE HR 1.	00	23	0	23	9.65	46	0	0
N	2	54	2	DATE MIN 1.	00	59	0	58	31.08	46	0	0
C	2	56	1	0216 DEPTH INTERVAL						46		
N	2	57	3	DEPTH M .1	001	999	10	10	10.00	46	0	0
N	2	60	5	PRESSURE MB .1	00944	01053	1003	1017	1010.60	46	0	0
N	2	65	4	WET BULB TEMPERATURE DEG C .1	-300	0400	0	138	108.97	46	0	0
N	2	69	4	TEMPERATURE DEG C .1	-300	0400	118	178	138.50	46	0	0
C	2	73	2	0110 WIND-WAVE DIRECTION						46		

N	2	75	2	WIND SPEED KM	00	70	0	25	6.67	46	0	0
C	2	77	1	0108 WEATHER (WMO4501)						46		
C	2	78	1	0109 SEA STATE (WMO3700)						46		
C	2	79	1	0157 VISIBILITY (WMO4300)						34		
C	2	80	1	0053 CLOUD TYPE (WMO500)						19		
C	2	81	1	0105 CLOUD AMT (WMO2700)						19		
Z	2	82	20	TEXT						46		
Z	2	102	6	TEXT						46		
N	2	108	5	BATHYMETRY M 1.	00000	08000	62	2604	618.89	46	0	0
N	2	113	4	DEPTH M 1.	0000	6000	57	1525	509.06	46	0	0
B	2	117	4	BLANK(S)						46		
Z	3	11	5	STATION NUMBER						4712		
N	3	16	5	DEPTH M .1	00000	60000	0	15250	5254.97	4712	0	0
N	3	21	5	TEMPERATURE DEG C .001	-2000	33000	2297	14977	4846.80	4712	0	0
N	3	26	5	SALINITY PPT .001	10000	36500	25309	34461	33340.47	4712	0	0
N	3	31	4	DENSITY .01	0315	3000	1884	2755	2638.67	4712	0	0
C	3	35	1	0080 STD-SCAN CONDITION						4712		
N	3	36	5	DEPTH M .1	00001	60000	10	15210	5265.43	4700	0	0
N	3	41	5	TEMPERATURE DEG C .001	-2000	33000	2298	14975	4828.36	4700	0	0
N	3	46	5	SALINITY PPT .001	10000	36500	25309	34461	33348.64	4700	0	0
N	3	51	4	DENSITY .01	0315	3000	1884	2755	2639.59	4700	0	0
C	3	55	1	0080 STD-SCAN CONDITION						4700		
N	3	56	5	DEPTH M .1	00002	60000	20	15220	5275.15	4693	0	0
N	3	61	5	TEMPERATURE DEG C .001	-2000	33000	2297	14972	4809.79	4693	0	0
N	3	66	5	SALINITY PPT .001	10000	36500	25309	34462	33357.96	4693	0	0
N	3	71	4	DENSITY .01	0315	3000	1884	2755	2640.60	4693	0	0
C	3	75	1	0080 STD-SCAN CONDITION						4693		
N	3	76	5	DEPTH M .1	00003	60000	30	15230	5283.15	4684	0	0
N	3	81	5	TEMPERATURE DEG C .001	-2000	33000	2301	14975	4792.53	4684	0	0
N	3	86	5	SALINITY PPT .001	10000	36500	25309	34461	33367.19	4684	0	0
N	3	91	4	DENSITY .01	0315	3000	1884	2755	2641.59	4684	0	0
C	3	95	1	0080 STD-SCAN CONDITION						4684		
N	3	96	5	DEPTH M .1	00004	60000	40	15240	5294.13	4674	0	0
N	3	101	5	TEMPERATURE DEG C .001	-2000	33000	2300	14973	4776.16	4674	0	0
N	3	106	5	SALINITY PPT .001	10000	36500	25309	34461	33376.39	4674	0	0
N	3	111	4	DENSITY .01	0315	3000	1884	2755	2642.56	4674	0	0
C	3	115	1	0080 STD-SCAN CONDITION						4674		
N	3	116	5	SEQUENCE NUMBER 1.	00001	99999	1	306	106.09	4712	0	0
Z	4	11	5	STATION NUMBER			NO VALUES FOUND FOR THIS PARAMETER					
N	4	16	5	DEPTH M .1	00005	60000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	21	5	DISSOLVED OXYGEN GAS ML/L .001	00001	15000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	26	5	LIGHT ATTENUATION % .001	00001	99000	NO VALUES FOUND FOR THIS PARAMETER					
B	4	31	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER					
C	4	35	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER					
N	4	36	5	DEPTH M .1	00006	60000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	41	5	DISSOLVED OXYGEN GAS ML/L .001	00001	15000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	46	5	LIGHT ATTENUATION % .001	00001	99000	NO VALUES FOUND FOR THIS PARAMETER					
B	4	51	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER					
C	4	55	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER					
N	4	56	5	DEPTH M .1	00007	60000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	61	5	DISSOLVED OXYGEN GAS ML/L .001	00001	15000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	66	5	LIGHT ATTENUATION % .001	00001	99000	NO VALUES FOUND FOR THIS PARAMETER					
B	4	71	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER					
C	4	75	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER					
N	4	76	5	DEPTH M .1	00008	60000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	81	5	DISSOLVED OXYGEN GAS ML/L .001	00001	15000	NO VALUES FOUND FOR THIS PARAMETER					
N	4	86	5	LIGHT ATTENUATION % .001	00001	99000	NO VALUES FOUND FOR THIS PARAMETER					

C 4	91	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
B 4	92	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
N 4	96	5	DEPTH M .1	00009	60000	NO VALUES FOUND FOR THIS PARAMETER
N 4	101	5	DISSOLVED OXYGEN GAS ML/L .001	00001	15000	NO VALUES FOUND FOR THIS PARAMETER
N 4	106	5	LIGHT ATTENUATION % .001	00001	99000	NO VALUES FOUND FOR THIS PARAMETER
B 4	111	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 4	115	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 4	116	5	SEQUENCE NUMBER 1.	00001	99999	NO VALUES FOUND FOR THIS PARAMETER
Z 5	11	5	STATION NUMBER			NO VALUES FOUND FOR THIS PARAMETER
N 5	16	5	DEPTH M .1	00010	60000	NO VALUES FOUND FOR THIS PARAMETER
N 5	21	5	TEMPERATURE DEG C .001	-2000	33000	NO VALUES FOUND FOR THIS PARAMETER
N 5	26	5	ELECTRICAL CONDUCTIVITY MMHOS/CM .001	15000	55000	NO VALUES FOUND FOR THIS PARAMETER
B 5	31	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 5	35	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 5	36	5	DEPTH M .1	00010	60000	NO VALUES FOUND FOR THIS PARAMETER
N 5	41	5	TEMPERATURE DEG C .001	-2000	33000	NO VALUES FOUND FOR THIS PARAMETER
N 5	46	5	ELECTRICAL CONDUCTIVITY MMHOS/CM .001	15000	55000	NO VALUES FOUND FOR THIS PARAMETER
B 5	51	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 5	55	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 5	56	5	DEPTH M .1	00010	60000	NO VALUES FOUND FOR THIS PARAMETER
N 5	61	5	TEMPERATURE DEG C .001	-2000	33000	NO VALUES FOUND FOR THIS PARAMETER
N 5	66	5	ELECTRICAL CONDUCTIVITY MMHOS/CM .001	15000	55000	NO VALUES FOUND FOR THIS PARAMETER
B 5	71	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 5	75	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 5	76	5	DEPTH M .1	00010	60000	NO VALUES FOUND FOR THIS PARAMETER
N 5	81	5	TEMPERATURE DEG C .001	-2000	33000	NO VALUES FOUND FOR THIS PARAMETER
N 5	86	5	ELECTRICAL CONDUCTIVITY MMHOS/CM .001	15000	55000	NO VALUES FOUND FOR THIS PARAMETER
B 5	91	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 5	95	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 5	96	5	DEPTH M .1	00010	60000	NO VALUES FOUND FOR THIS PARAMETER
N 5	101	5	TEMPERATURE DEG C .001	-2000	33000	NO VALUES FOUND FOR THIS PARAMETER
N 5	106	5	ELECTRICAL CONDUCTIVITY MMHOS/CM .001	15000	55000	NO VALUES FOUND FOR THIS PARAMETER
B 5	111	4	BLANK(S)			NO VALUES FOUND FOR THIS PARAMETER
C 5	115	1	0080 STD-SCAN CONDITION			NO VALUES FOUND FOR THIS PARAMETER
N 5	116	5	SEQUENCE NUMBER 1.	00001	99999	NO VALUES FOUND FOR THIS PARAMETER

RECORDS READ : 5724

NANSEN REF. #

319247

MULDARS TRACK #

TR6824

MONITOR: CONTACT

Gerald W. Damon

LOCATION OF F022 SOURCE

Archives (TR6824)

RECORD ALL ERRORS FOUND

CONSEC(S)	ERRORS FOUND
8, 31	Position/Time doubtful: delete station
41	Lat. min. change 418 to 468 C/418// to C/468//
15, 17, 19, 21 24, 30	Sal. qual.

Muldars correction Made – 5/15/84 – MKL

```
Password:
 accNo   fleA refNo  proj inst ship    startDate  cruise   catId
 ------- ---- ------ ---- ---- ------- ---------- -------- ----------
 8100441 F022 TR6824 0081 31I7 31AC    1979/09/07 AC286        314389
 8100441 C022 319247 0081 31I7 31AC    1979/09/07 TR6824       314390

(2 rows affected)
```

```
Password:
 accNo   fleA refNo  ship staCnt recCnt startDate  endDate
 ------- ---- ------ ---- ------ ------ ---------- ----------
 8100441 F022 TR6824 31AC 46     4766   79/09/07   79/09/11
 8100441 C022 319247 31AC 46     57     79/09/07   79/09/11

(2 rows affected)
```