

(VCM624) DATA DOCUMENTATION FORM

NOAA FORM 24-13  
(4-77)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

*Enter*

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Sciences Gloucester Point, Virginia 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM01B</i>	
4. PLATFORM NAME(S) <i>Iselin</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM <i>USA</i>	OPERATOR <i>USA</i>
		7. DATES	
		FROM: MO/DAY/YR <i>10/27/75</i>	TO: MO/DAY/YR <i>11/6/75</i>
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES  IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR ___ MONTH ___		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.  <b>GENERAL AREA</b>	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1)  <i>Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062</i>			

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

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	COMPUTING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Longitude	Degrees, minutes, seconds	Loran C Stikell Model 1A 101		Program used to convert from Loran C coordinates to latitude & longitude
Longitude Hemisphere	E or S			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Sanforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees AMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	KNOTS	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees AMO Code 0877	Ship's compass		
Wave height	1/2 meters AMO Code 1555	Visual estimate		
Well direction	Tens of degrees AMO Code 0877	Ship's compass		
Well height	1/2 meters AMO Code 1555	Visual estimate		
Water surface type	AMO Codes 0513, 0515, 0509	Visual estimate		

TEST FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	CALIBRATION TECHNIQUES WITH FILTERING AND AVERAGING
Overall count	WYO Code 300	Visual observation		
Stability	WYO Code 300	Visual observation		
Wave period	seconds	Wrist watch - visual observation		
Swirl period	seconds	Wrist watch - visual observation		



C. DATA FORMAT

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

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Positions 1-10 identical to the last sample header  
Sample Header 2 "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator of data for Positions 1-10 identical to last data record,  
Each sample "99" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "998" in  
positions 11-13.

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN
- |   |                                |                                |
|---|--------------------------------|--------------------------------|
| <input type="checkbox"/> PL-1               | <input type="checkbox"/> ALGOL | <input type="checkbox"/> COBOL |
| <input checked="" type="checkbox"/> FORTRAN | <input type="checkbox"/> _____ | LANGUAGE                       |

4. RESPONSIBLE COMPUTER SPECIALIST: Gerald L. Engel  
 NAME AND PHONE NUMBER \_\_\_\_\_  
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <table border="0"> <tr> <td><input type="checkbox"/> BCD</td> <td><input type="checkbox"/> BINARY</td> </tr> <tr> <td><input type="checkbox"/> ASCII</td> <td><input checked="" type="checkbox"/> EBCDIC</td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td></td> </tr> </table>	<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY	<input type="checkbox"/> ASCII	<input checked="" type="checkbox"/> EBCDIC	<input type="checkbox"/> _____		<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN)</p> <table border="0"> <tr> <td><input type="checkbox"/> 3/4 INCH</td> </tr> <tr> <td><input checked="" type="checkbox"/> 0.6 inch</td> </tr> </table>	<input type="checkbox"/> 3/4 INCH	<input checked="" type="checkbox"/> 0.6 inch
<input type="checkbox"/> BCD	<input type="checkbox"/> BINARY								
<input type="checkbox"/> ASCII	<input checked="" type="checkbox"/> EBCDIC								
<input type="checkbox"/> _____									
<input type="checkbox"/> 3/4 INCH									
<input checked="" type="checkbox"/> 0.6 inch									
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <table border="0"> <tr> <td><input type="checkbox"/> SEVEN</td> </tr> <tr> <td><input checked="" type="checkbox"/> NINE</td> </tr> <tr> <td><input type="checkbox"/> _____</td> </tr> </table>	<input type="checkbox"/> SEVEN	<input checked="" type="checkbox"/> NINE	<input type="checkbox"/> _____	<p>10. END OF FILE MARK</p> <table border="0"> <tr> <td><input type="checkbox"/> OCTAL 17</td> </tr> <tr> <td><input type="checkbox"/> _____</td> </tr> </table>	<input type="checkbox"/> OCTAL 17	<input type="checkbox"/> _____			
<input type="checkbox"/> SEVEN									
<input checked="" type="checkbox"/> NINE									
<input type="checkbox"/> _____									
<input type="checkbox"/> OCTAL 17									
<input type="checkbox"/> _____									
<p>7. PARITY</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/> ODD</td> </tr> <tr> <td><input type="checkbox"/> EVEN</td> </tr> </table>	<input checked="" type="checkbox"/> ODD	<input type="checkbox"/> EVEN	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER)</p> <p>VCM401                  Virginia Institute of Marine Science                  Macro Benthos                  File Label = 'MACROB.012' <i>(BLM01B)</i></p>						
<input checked="" type="checkbox"/> ODD									
<input type="checkbox"/> EVEN									
<p>8. DENSITY</p> <table border="0"> <tr> <td><input type="checkbox"/> 200 BPI</td> <td><input checked="" type="checkbox"/> 1600 BPI</td> </tr> <tr> <td><input type="checkbox"/> 556 BPI</td> <td></td> </tr> <tr> <td><input type="checkbox"/> 800 BPI</td> <td></td> </tr> <tr> <td><input type="checkbox"/> _____</td> <td></td> </tr> </table>	<input type="checkbox"/> 200 BPI	<input checked="" type="checkbox"/> 1600 BPI	<input type="checkbox"/> 556 BPI		<input type="checkbox"/> 800 BPI		<input type="checkbox"/> _____		<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p style="text-align: center;">91</p>
<input type="checkbox"/> 200 BPI	<input checked="" type="checkbox"/> 1600 BPI								
<input type="checkbox"/> 556 BPI									
<input type="checkbox"/> 800 BPI									
<input type="checkbox"/> _____									
	<p>13. LENGTH OF BYTES IN BITS</p> <p style="text-align: center;">8</p>								

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	28	Chars	28A1	

## RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN INCHES (e.g., 010, 0100)	16. LENGTH		17. ATTAINING BYTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	FS.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1	GEAR: 1=0.1 Smith-Mcintyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m <sup>2</sup> VanVeen grab
Replicate	51	2	Bytes	I2	Replicate number
Sieve	53	4	Bytes	F4.3*	Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2	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
Area	59	4	Bytes	F4.2*	Surface area of sample: (m <sup>2</sup> , 2 decimals)
PDepth	63	3	Bytes	F3.1*	Depth of sample penetration: (cm, 1 decimal)
Aliquot	66	1	Byte	I1	ALIQUOT Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 8-10cm from Smith McIntyre grab

RECORD FORMAT DESCRIPTION

SAMPLE HEADER 1 CONT.

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  FCRTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annelida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in Hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Cructacean (wet weight hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinoderrata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**

\*Decimal place IMPLIED: "period" is not present

\*\*A "T" in last column of field indicates only a trace reading



RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FIELD (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Plank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

\*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

FIELD NAME	15. POSITION FROM -1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "T" Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78 X	Blank
<b>Data Record</b>					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank

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\*\*"p" in cols. 31-35 indicates the organism is present but not countable

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 MEASUREMENT TECHNIQUE

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







12  
e13

Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: F012
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1407

Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/8/83	<del>87210</del>	VCM624	3	91	91	
ADI/SCAN TAPE	3/8/83	<del>87210</del>	W10401	3	4550	91	
DESIGNED FOR PROCESS.							
OF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

(VCM 625)

ACCESSION NUMBER

7700455

DATA DOCUMENTATION FORM

TR1408

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEANOGRAPHIC DATA CENTER RECORDS SECTION WASHINGTON, DC 20235

FORM APPROVED O.M.B. No. 41-R2651 EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT BLM02B

4. PLATFORM NAME(S) Pierce

5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) Ship

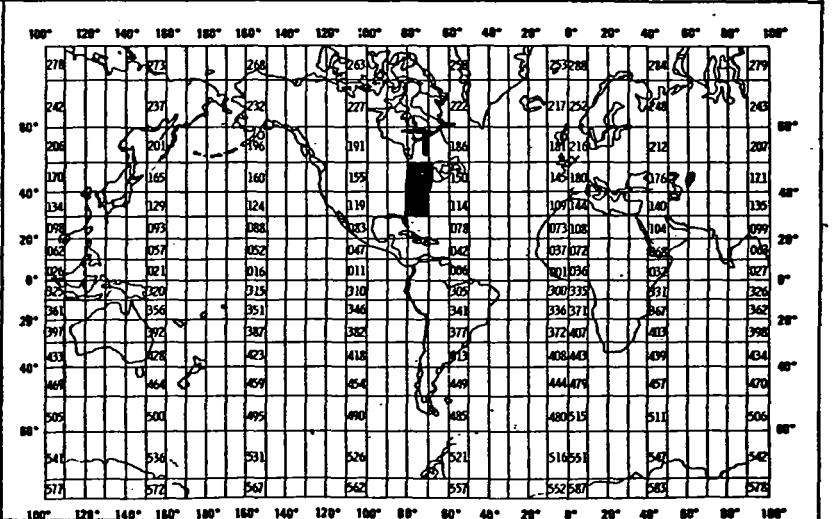
6. PLATFORM AND OPERATOR NATIONALITY(IES) USA USA

7. DATES FROM: MO/DAY/YR TO: MO/DAY/YR 2/16/76 3/23/76

8. ARE DATA PROPRIETARY? [X] NO [ ] YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR MONTH

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

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) [X] NO [ ] 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) Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062

## 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
Latitude & Longitude	Degrees, minutes, seconds	Loran C Sikula Model TA 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitude Hemisphere	N or S			
Longitude Hemisphere	E or W			
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Water depth	to nearest tenth of a meter	EDO Model 55A Recorder EDO Model 444D/248D Tranceiver		
Water sample depth	to nearest meter	CTD Neil Brown MK III		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Sediment temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Sanforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees WMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees WMO Code 0877	Ship's compass		
Wave height	1/2 meters WMO Code 1555	Visual estimate		
Well direction	Tens of degrees WMO Code 0877	Ship's compass		
Well height	1/2 meters WMO Code 1555	Visual estimate		
Water	WMO Code 4077	Visual estimate		
Cloud type	WMO Codes 0513, 0515, 0509	Visual estimate		



DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDE MODIFICATIONS AND LABORATORY PROCEDURES)	DATA PROCESSING TECHNIQUES (FILTERING AND AVERAGING)
Card cover:	WFO Code 2700	Visual observation		
Stability	WFO Code 4300	Visual observation		
Wave period:	seconds	Wrist watch - visual observation		
Swell period:	seconds	Wrist watch - visual observation		

### C. DATA FORMAT

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

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

- . File Header "1" in position 10
- . Sample Header 1 "2" in position 10
- . Terminator for Sample Header 1 Position 1-10 identical to last sample header, "998" in positions 11-13
- . Sample Header 2 "3" in position 10
- . Terminator for Positions 1-10 identical to the last sample header
- . Sample Header 2 "998" in positions 11-13.
- . Data Record "4" in position 10
- . Terminator of data for Positions 1-10 identical to last data record, Each sample "99" - position 11-13
- . File Terminator Positions 1-10 identical to last data record, "998" in positions 11-13.

GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records and 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample Headers, terminators, data records, terminator sequence is repeated until final terminator record.

ATTRIBUTES AS EXPRESSED IN  PL-1  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

RESPONSIBLE COMPUTER SPECIALIST: Gerald L. Engel  
 NAME AND PHONE NUMBER \_\_\_\_\_  
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____	9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch
NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____	10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____
PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN	11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF DATA TYPE, VOLUME NUMBER) VCM401 Virginia Institute of Marine Science Macro Benthos File Label = 'MACROB.012.BLMO2B' <del>_____</del> <del>_____</del>
DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____	12. PHYSICAL BLOCK LENGTH IN BYTES 91 13. LENGTH OF BYTES IN BITS 8



RECORD FORMAT DESCRIPTION

CORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"012" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	28	Chars	28A1	

## RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN UNITS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES		18. USE AND MEANING
		NUMBER	UNITS	FORTRAN		
File Type	1	3	Chars	A3		"012" file type
File date	4	6	Bytes	3I2		Year, month, day of file generation
Record type	10	1	Chars	A1		"2" (first sample header record)
Sequence	11	3	Chars	A3		Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1		Sample identifier
Latitude	19	6	Bytes	3I2		Degrees, minutes, seconds
Lat hem	25	1	Char	A1		Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2		Degrees, minutes, seconds
Lon hem	33	1	Char	A1		Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*		Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2		Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*		Water depth (to nearest tenth of a meter)
Gear	50	1	Bytes	I1		GEAR: 1=0.1 Smith-Mcintyre grab 2=Shipek 3=Gravity corer 4=Box corer 5=Vibro corer 6=Ewing corer 7=Hydrostatically damped corer 8=0.2 m <sup>2</sup> VanVeen grab
Replicate	51	2	Bytes	I2		Replicate number
Sieve	53	4	Bytes	F4.3*		Sieve size (mm, 3 decimals)
Navigation	57	2	Bytes	I2		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
Area	59	4	Bytes	F4.2*		Surface area of sample: (m <sup>2</sup> , 2 decimals)
Depth	63	3	Bytes	F3.1*		Depth of sample penetration: (cm. 1 decimal)
Aliquot	66	1	Byte	I1		ALIQOT Method 1=top 2-3 cm of 35mm core from grab 2=top cm from grab 3=top 8-10cm from shipek grab 4=top 8-10cm from Smith McIntyre grab



RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1 cont.

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN bytes <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Annelida	67	5	Bytes	F5.2*	5=top 10cm from box corer 6=core below 10cm from box corer Biomass-Annelida (wet weight in hundredths of grams)**
Mollusca	72	5	Bytes	F5.2*	Biomass-Mollusca (wet weight in Hundredths of grams)**
Crustacean	77	5	Bytes	F5.2*	Biomass-Cructacean (wet weight hundredths of grams)**
Echin	82	5	Bytes	F5.2*	Biomass-Echinodermata (wet weight in hundredths of grams)**
Miscel.	87	5	Bytes	F5.2*	Biomass-Miscellaneous Taxa (wet weight in hundredths of grams)**

\*Decimal place IMPLIED: "period" is not present

\*\*A "T" in last column of field indicates only a trace reading

RECORD FORMAT DESCRIPTION

Master

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"012" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Kilometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Plank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	36	Bytes	36X	Blank

\*Decimal place is IMPLIED; "period" is not present



## RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "T" Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78 X	Blank
<b>Data Record</b>					
File type	1	3	Chars	A3	"012" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Replicate	19	2	Chars	A2	Replicate number
Species	21	10	Chars	10A1	Species (NODC code)
Count	31	5	Bytes	I5	Count (number of individuals)**
Blank	36	56	Bytes	56X	Blank
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	78	Bytes	78X	Blank

\*Decimal place is IMPLIED: "period" is not present

\*\*"p" in cols. 31-35 indicates the organism is present but not countable

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 MEASUREMENT TECHNIQUE

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



ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC 12

FROM: OC 13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: F 012
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR 1408

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR1408

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM625	SL	91	91	9-tr 1600 BPI EBCDIC	
Duplicate	W10317	SL	91	4550	9-tr 1600 BPI ASCII	
Reformatted						
First User						
Final User						



Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
GENERATOR TAPE	3/25/83	<del>8182</del>	KCM625	3	91	91	
DI/SCAN TAPE	3/25/83	<del>8182</del>	W10317	3	4550	91	
SIGNED FOR PROCESS.							
EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
TEST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
PRINTED DISK FILE							
DATA SET "FINALIZED"							

VCM628 DATA DOCUMENTATION FORM

TR1410

NOAA FORM 24-13

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Sciences Gloucester Point, Va. 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM01B</i>	
4. PLATFORM NAME(S) <i>Iselin</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES) PLATFORM OPERATOR <i>USA USA</i>	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR <i>10/27/75 11/6/75</i>
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.  GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) <i>Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062</i>			

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

## 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
Latitude & Long.	Degrees, mins., seconds	Loran C SHEAR Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Longitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	Knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Sea state	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 0511, 0515, 0509	Visual estimate		

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
Cloud cover	WMO cte 2700	Visual observation		
Visibility	WMO cte 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Swell period	Seconds	Wrist watch - visual observation		



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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, each sample "999" - position 11-13
8. File Terminator Positions 1-10 Identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN  PL-1  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF TYPE, VOLUME NUMBER)</p> <p>VCM408 Virginia Institute of Marine Science Mega Benthos File Label = 'MEGABN.082.BLM01B'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1500 BPI</p> <p><input type="checkbox"/> 556 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 79</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN BYTES (e.g., 10n, 20n, 20m)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day-ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	16	Chars	16A1	

## RECORD FORMAT DESCRIPTION

CORD NAME SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g. 5th byte)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lathem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	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
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

\*Decimal place IMPLIED: "period" is not present

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FIELDS (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank

\*Decimal place is IMPLIED; "period" is not present

## RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<u>Record Type "3" Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank

\*Decimal place is IMPLIED: "period" is not present

\*\*A "P" in col. 33 indicates the organism is present but not countable.



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 MEASUREMENT TECHNIQUE

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

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession 17700455

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1410

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR1410

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM628	SL	79	79	9-t 1600BPI EBCDIC	
Duplicate	W11161	SL	79	4740	9-t 1600BPI ASCII	
Reformatted						
First User						
Final User						

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
	GENERATOR TAPE	3/24/83	<del>9/83</del>	VCM628	3	79	79
DI/SCAN TAPE	3/24/83	<del>9/83</del>	W11161	3	4740	79	
SIGNED FOR PROCESS.							
OF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							



ACCESSION NUMBER

7700455

DATA DOCUMENTATION FORM

TR1411

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Sciences Gloucester Point, Va. 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM02W</i>	
4. PLATFORM NAME(S) <i>Pierce</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES) PLATFORM OPERATOR <i>USA USA</i>	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR <i>2/4/76 2/17/76</i>
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES  IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.  GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) <i>Gerald L. Engel VIMS Gloucester Pt., Va. 23062</i>			

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

## B. SCIENTIFIC CONTENT

NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHOD OF OBSERVATION AND INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES WITH FILTERING AND AVERAGING
Latitude & Long.	Degrees, mins., seconds	Loran C SHEAR Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Longitudinal Ref.	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

B. SCIENTIFIC CO. ENT

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
Cloud cover	WMO code 2700	Visual observation		
Visibility	WMO code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Well period	Seconds	Wrist watch - visual observation		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN  PL-1  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:  
 NAME AND PHONE NUMBER Gerald L. Engel  
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY  <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 INCH  <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN  <input checked="" type="checkbox"/> NINE</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17  <input type="checkbox"/> _____</p>
<p>7. PARITY <input checked="" type="checkbox"/> ODD  <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF TYPE, VOLUME NUMBER)                  VCM408                  Virginia Institute of Marine Science                  Mega Benthos                  File Label = 'MEGABN.082.BLM02W'</p>
<p>8. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI  <input type="checkbox"/> 356 BPI  <input type="checkbox"/> 800 BPI</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES                  79</p>
	<p>13. LENGTH OF BYTES IN BITS                  8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	16	Chars	16A1	



## RECORD FORMAT DESCRIPTION

SAMPLE HEADER 1

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
gear	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
Navigation	51	2	Bytes	I2	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
Mesh	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Trawl	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

\*Decimal place IMPLIED: "period" is not present

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN FILE (e.g., 010, 010a)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"082" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	SA1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank

\*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME		RECORD FORMAT DESCRIPTION			
14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "3" Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<b>Data Record</b>					
File type	1	3	Chars	A3	"082" (constant)
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank

\*Decimal place is IMPLIED: "period" is not present

\*\*A "p" in col. 33 indicates the organism is present but not countable.

#### 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 MEASUREMENT TECHNIQUE

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

DATE:

TO:

FROM:

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1411

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR 1411

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM629	SL	79	79	9-t 1600 BPI EBCDIC	
Duplicate	W10461	SL	79	4740	9-t 1600 BPI ASCII	
Reformatted						
First User						
Final User						



Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/24/83	<del>8/28/83</del>	VCM629	3	79	79	
QUADI/SCAN TAPE	3/24/83	<del>8/28/83</del>	W10461	3	4740	79	
ASSIGNED FOR PROCESS.							
PDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

DATA DOCUMENTATION FORM

TR1412

FORM 24-13

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20238

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

F082

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

SECTION MUST BE COMPLETED BY DONOR FOR ALL DATA TRANSMITTALS

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

VIMS

EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED

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

BLM04T

PLATFORM NAME(S)

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)

6. PLATFORM AND OPERATOR NATIONALITY(IES)

7. DATES

SHIP

PLATFORM OPERATOR FROM: MO, DAY, YR TO: MO, DAY, YR

8/23/76 8/27/76

IS DATA PROPRIETARY?

NO  YES

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

IS DATA DECLARED NATIONAL PROGRAM (DNP)?

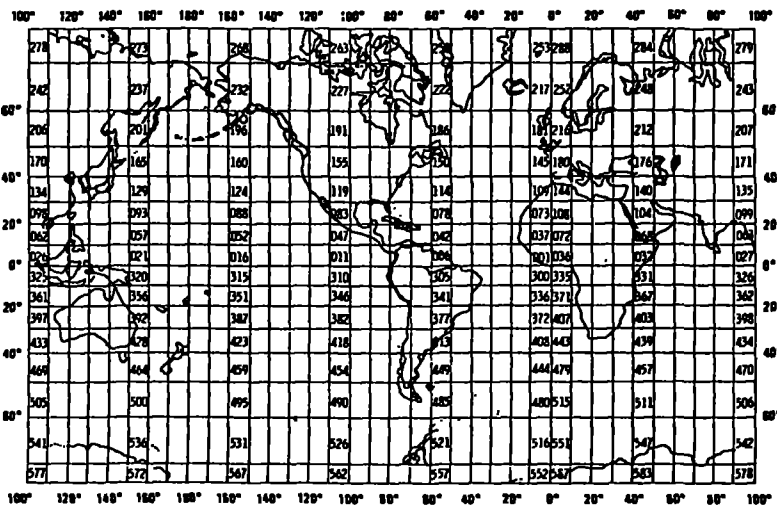
SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?

NO  YES  PART (SPECIFY BELOW)

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

GENERAL AREA

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



## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

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
Latitude & Long.	Degrees, mins., seconds	Loran C SHEAR Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Longitude Ref.	N or S			
Longitude Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4077	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

DATA FIELD	OR CODE	INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	METHODS USED AND LABORATORY PROCEDURES	TECHNIQUES AND AVERAGING
Over	WMO cte 2700	Visual observation		
ity	WMO cte 4300	Visual observation		
tics	Seconds	Wrist watch - visual observation		
eriod	Seconds	Wrist watch - visual observation		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "999" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "999" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" in positions 11-13
8. File terminator Positions 1-10 identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN  PL-1  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

5. COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>6. RECORDING MODE <input type="checkbox"/> BCD <input type="checkbox"/> BINARY <input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN) <input type="checkbox"/> 3/8 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>7. NUMBER OF TRACKS (CHANNELS) <input type="checkbox"/> SEVEN <input checked="" type="checkbox"/> NINE <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK <input type="checkbox"/> OCTAL 17 <input type="checkbox"/> _____</p>
<p>8. PARITY <input checked="" type="checkbox"/> ODD <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF TYPE, VOLUME NUMBER) VCM408 Virginia Institute of Marine Science Mega Benthos File Label = 'MEGABN.082.BLM07T'</p>
<p>9. DENSITY <input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI <input type="checkbox"/> 556 BPI <input type="checkbox"/> 800 BPI <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 79</p> <p>13. LENGTH OF BYTES IN BITS 8</p>



RECORD FORMAT DESCRIPTION

CORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"082" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	16	Chars	16A1	

RECORD FORMAT DESCRIPTION

SAMPLE HEADER 1

NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
Record type	1	3	Chars	A3	"082" file type
Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Longitude	25	1	Char	A1	Hemisphere "N" or "S"
Latitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Longitude	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
GEAR	50	1	Byte	I1	GEAR: 1=Anchor dredge 2=Small biological trawl 3=Otter Trawl (30 ft.) 4=Rockingchair dredge
NAVIGATION	51	2	Bytes	I2	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
Dredge mesh size	53	4	Bytes	F4.2*	Dredge mesh size (mm, 2 decimals)
Otter trawl liner	57	4	Bytes	F4.2*	Otter trawl liner (mm, 2 decimals)
Tow duration	61	2	Bytes	I2	Tow duration: minutes
Blank	63	17	Bytes	17X	Blank

\*Decimal place IMPLIED: "period" is not present

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "2"	Terminators				
Record Type	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
Sample Header Record 2					
Record Type	1	3	Chars	A3	"082" (constant)
Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Wet Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Dry Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	24	Bytes	24X	Blank

\*Decimal place is IMPLIED; "period" is not present

## RECORD FORMAT DESCRIPTION

NAME \_\_\_\_\_

15. POSITION FROM - 1 MEASURED IN <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING	
	NUMBER	UNITS			
<u>Record Type "3"</u> Terminator					
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>Data Record</u>					
Record type	1	3	Chars	A3	"082" (constant)
Record date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Species	19	10	Chars	10A1	Species (NODC code)
Count	29	5	Bytes	I5	Count (number of individuals)**
Weight	34	5	Bytes	I5	Weight (mg)
Order of magnitude	39	2	Bytes	I2	Order of magnitude
Blank	41	39	Bytes	39X	Blank
<u>Data Record Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank
<u>File Terminator</u>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66X	Blank

\*Decimal place is IMPLIED: "period" is not present

\*\*A "p" in col. 33 indicates the organism is present but not countable.

#### 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 MEASUREMENT TECHNIQUE

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

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: F082
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1412

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_



TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR1412

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM631	SL	79	79	9-t 1600BPI EBCDIC	
Duplicate	W10465	SL	79	4740	9-t 1600BPI ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7700425/ TR.1412

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
OR TAPE	4/12/83	<i>JBR</i>	VC631	3	79	79	
AN TAPE	4/12/83	<i>JBR</i>	W10465	3	4740	79	
ED FOR PROCESS.							
ALUATION							
Y REVIEW							
MINARY DATA SORT							
MINARY MULCHEK							
T USER TAPE							
K DISK FILE							
AL USER TAPE							
AL MULCHEK							
TED DISK FILE							
A SET "FINALIZED"							

DDFA: 2,02

ACCESSION  
NUMBER

7700455

VCM 258

## DATA DOCUMENTATION FORM

TR1413

NOAA FORM 24-13  
(4-77)U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Sciences Gloucester Pt., Virginia 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM 01B</i>	
4. PLATFORM NAME(S) <i>Iselin</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES) PLATFORM OPERATOR <i>USA USA</i>	7. DATES FROM: MO, DAY, YR TO: MO, DAY, YR <i>10/27/75 11/06/75</i>
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.  GENERAL AREA	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) <i>Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062</i>			

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING TWO PAGES FOR THIS INFORMATION)

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
Latitude & Long	Degrees, mins., seconds	Loran C SIMPAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4577	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

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
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	Seconds	Wrist watch - visual observation		
Wave period	Seconds	Wrist watch - visual observation		



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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record,
8. File terminator <sup>each sample</sup> Positions 1-10 "999" - position 11-13  
Positions 11-13 identical to last data record, "999" in

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN  PL-I  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>6. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>5. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF LABEL TYPE, VOLUME NUMBER)</p> <p>VCM339 Virginia Institute of Marine Science HISTOPATHOLOGY File Label = 'HISTOP.011.BLMO18'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 87</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., bit, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	24	Chars	24A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

4. FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes <small>(e.g. bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	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
Blank	52	36	Bytes	36X	Blank

\*Decimal place IMPLIED: "period" is not present.

RECORD FORMAT DESCRIPTION

11/5/69

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FILE (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"5" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
wind Speed	32	2	Bytes	I2	Knots
wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
weather	40	2	Bytes	I2	WMO code 4677
cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	32	Bytes	32X	Blank

\*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

RECORD NAME

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "3" Terminator</b>					
Ident	1	10	Bytes	A3, 3I2 A1	Same as Sample Header Record 2
Sequence	11	3	Chars		"998" (Constant)
Blank	14	74	Bytes		Blank
<b>Sample Header Record 3</b>					
File type	1	3	Chars	A3	"011" (Constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (Third sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Blank	19	33	Bytes	33X	
Trawl	52	6	Chars	6A1	Trawl number
Specimen No.	58	5	Bytes	I5	Specimen number
Specimen sub.	63	5	Bytes	I5	Specimen subnumber
Specimen type	68	5	Bytes	I5	Specimen type (see attached sheet)
Species	73	10	Chars	10A1	Species (NODC code)
Size	83	5	Bytes	I5	Size (mm)

## RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "4"	Terminator				
Ident	1	10	Bytes	A3,3I2,A1	Same as sample header record 3
Sequence	11	3	Chars	A3	"998" (constnat)
Blank	14	74	Bytes	74X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"5" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Specimen No.	19	5	Bytes	I5	Specimen number
Subnumber	24	2	Bytes	I2	Specimen subnumber
Fixative	26	1	Bytes	I1	Fixative 1=Dietrichs
Embedding	27	1	Bytes	I1	Type Embedding 1=Paraffin
Stains	28	1	Bytes	I1	Stains 1=Harris Hematoxylin and Eosin
Sex	29	1	Chars	A1	Sex M=male F=female H=male & female X=cannot determine
Stage 1	30	1	Bytes	I1	Stage 1 gonad (Primordial gonad) 0=absent 1=present
Stage 2	31	1	Bytes	I1	Stage 2 gonad (premeiotic gonad; previtellogenic gonad; primary oocytes sperm- atocytes) 0=absent 1=present
Stage 3	32	1	Bytes	I1	Stage 3 gonad (postmeiotic gonad; intellogenic gonad-primary oocytes or sperm) 0=absent 1=present
Abundance	33	1	Bytes	I1	2=yoked eggs only Relative abundance of stage 3 cells 0=does not apply 1=very few 2=moderate numbers 3=many 4=none



## RECORD FORMAT DESCRIPTION

0 NAME

10. NAME	15. POSITION FROM -1 MEASURED IN (e.g., 8th, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
4	34	1	Bytes	I1	Stage 4 gonad (spawned out or resting gonad) 1=has appearance of spawned out, but could be confused with stage 1,2, or early 3 gonad 2=Most definitely spawned out gonad 3=most definitely spawned out gonad invaded by amoebocytes
d	35	1	Bytes	I1	Mixed gonad (stages 1,2, or 3& 4) 0=absent 1=present
m	36	1	Byte	I1	Spermatophores 0=absent 1=present
	37	1	Byte	I1	Eggs - 2N 1=early 2=late
b	38	4	Chars	A4	0=Absent Symbionts, general (see appendix A) (prefix)
b	42	2	Chars	A2	Symbionts, Specific (see appendix A) (code)
	44	1	Byte	I1	Symbionts, Type 0=absent 1=parasitic 2=commensal 3=commensal, but large numbers indicate physiol. Impairment
ive	45	1	Byte	I1	Relative numbers 0=none 1=few 2=moderate numbers, 3=many
	46	1	Byte	I1	Ecto - or endoparasite 0=absent 1=ecto 2=endo 3=both
s	47	2	Bytes	I2	Tissues parasitized 00=none (see specimen type codes)
	49	1	Byte	I1	Extra - or intracellular parasite 0=does not apply 1=intra 2=extra 3=both 4=cannot determine

## RECORD FORMAT DESCRIPTION

RD NAME

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
st	50	4	Chars	A4	Host response, general NONE=none (see appendix B (prefix))
st	54	2	Chars	A2	Host response, specific 00=none (see appendix B (code))
st	56	1	Byte	I1	Degree host response 0=none 1=slight 2=moderate 3=severe
ion	57	1	Byte	I1	Lesions-underdetermined origin 0=none 1=local 2=systemic
e	58	2	Bytes	I2	Lesions - site 00=none (See specimen type codes)
sions	60	4	Chars	A4	Lesions - host response NONE=none (see appendix C (prefix))
c p	64	2	Chars	A2	Lesions, description (See appendix C (code))
ree	66	1	Byte	I1	Degree response 0=none 1=slight 2=moderate 3=severe
er	67	1	Byte	I1	Number of lesions 0=none 1=very few 2=moderate numbers 3=many
k	68	20	Bytes	20X	

## RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES <small>(e.g., 070, 0700)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	74	Bytes	74X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank

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 MEASUREMENT TECHNIQUE

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

## Specimen Type Codes

- 01 stomach (may also include upper intestine)
- 02 lower intestine
- 03 upper intestine
- 04 foot
- 05 mantle
- 06 gill
- 07 heart
- 08 liver
- 09 spleen
- 10 hepatopancreas and/or digestive diverticulae
- 11 adductor muscle
- 12 siphon
- 13 striated musculature
- 14 testes
- 15 ovary
- 16 whole animal
- 17 right half
- 18 left half
- 19 cephalothorax and abdomen
- 20 abdomen
- 21 cephalothorax
- 22 anterior half
- 23 posterior half
- 24 1/5 of echinoderm
- 25 2/5 of echinoderm
- 26 chela and/or chela joint
- 27 gonad (sex indeterminate)
- 28 intestine
- 29 midway between gill and anus
- 30 1/4 of animal - between gill and anus
- 31 testes and hepatopancreas combined
- 32 longitudinal or center of sand dollar
- 33 visceral mass (denotes various combined organs of digestive and reproductive system)
- 34 muscle and gill
- 35 kidney or nephridium
- 36 adductor muscle plus visceral mass
- 37 gill and mantle
- 38 gall bladder
- 39 starfish arm
- 40 starfish disc
- 41 unknown parasite
- 42 eye and eye stalk
- 43 crystalline style
- 44 telson
- 45 membrane or "skin" of crab
- 46 sperm plug (in female crab)
- 47 operculum of fish (gill cover)
- 48 vas deferens

## APPENDIX A

(Prefix)	<u>Code</u> :	Description
(PROT)	<u>AA</u> :	Benign exuviotrophic apostome ciliates, approximately 15 $\mu\text{m}$ in length, found on the gill lamellae of <u>Crangon septemspinosa</u> , <u>Pontophilus brevirostris</u> , and <u>Cancer irroratus</u> . Ciliates did not elicit host response or cause degenerative changes. Reference: B.H. Grimes, J. Protozool. <u>23</u> :246 (1976).
(PROT)	<u>AB</u> :	Commensal peritrich ciliates, approximately 40 x 66 $\mu\text{m}$ with large, horseshoe-shaped macronucleus on the exterior of the echinoderms. Genus, species, unknown.
(XKN)	<u>AC</u> :	Unidentified copepods found on crab gills. Size approximately 83 x 44 $\mu\text{m}$ .
(MICR)	<u>AD</u> :	Filamentous epiphytic bacteria found growing on crab gills.
(XKN)	<u>AE</u> :	Large, copepod-like crustacea. Size approximately 165 $\mu\text{m}$ .
(PROT)	<u>AF</u> :	The parasitic apostome ciliate, <u>Synophrya</u> , was determined to be the etiologic agent causing gill black spot disease in <u>Dichelopandalus leptocerus</u> . This ciliate penetrated the gill lamellae of <u>D. leptocerus</u> , and replicated in a cyst-like structure derived from melanized host cells. Not all shrimp were "infected" (see First Annual Report to BLM from VIMS). Reference: C.A. Johnson and P.C. Bradbury, J. Protozool. <u>23</u> : 252 (1976).
(TREM)	<u>AG</u> :	Branching trematode sporocysts resembling those of <u>Bucephalus</u> sp. were observed ramifying throughout the gonads of <u>Astarte castanea</u> . Sporocysts also observed in gill haemal spaces in heavily infected individuals. Reference: T.C. Cheng and R.W. Burton, Chesapeake Sci. <u>6</u> :3 (1965).
(XKN)	<u>AH</u> :	DNA-positive cytoplasmic inclusion bodies, approximately 14 $\mu\text{m}$ in diameter, found in the cells of the digestive diverticula of <u>Astarte castanea</u> and <u>A. unilata</u> ; similar inclusions also found in <u>Placopecten magellanicus</u> . Harshbarger (Registry of Tumors for Lower Animals) has recently found inclusion bodies in the digestive diverticular cells of clams and oysters and has

(Prefix)	<u>Code:</u>	Description
		noted organisms resembling rickettsia and mycoplasmas in the inclusion bodies.
(TREM)	<u>AI:</u>	Trematode metacercaria found in musculature of <u>Crangon septemspinosa</u> . Not identified.
(XKNN)	<u>AJ:</u>	DNA-positive cytoplasmic inclusion bodies- <u>cf.</u> (XKNN) <u>AH</u> .
(PROT)	<u>AK:</u>	<u>Orchitophyra stellarum</u> , an astomatic ciliate parasitic on the gonads of various species of <u>Asterias</u> , was found in the gonads of sea stars. Reference: H. Vevers, J. Mar. Biol. Assoc. <u>29</u> : 619 (1951).
(PROT)	<u>AL:</u>	Ciliates of unknown affinity were observed nestling among the digestive diverticular cells of the <u>Astartes</u> ; these ciliates were round to oval in cross-section, approximately 1-4 $\mu$ m in diameter, and possessed a number of small "micronuclei." Ciliates did not appear to have a macronucleus. No host response or tissue damage associated with this organism.
(XKNN)	<u>AM:</u>	Unknown metazoan in gut of <u>Astarte</u> .
(TREM)	<u>AN:</u>	Trematode metacercaria found in musculature of <u>Pontophilus brevis</u> .
(XKNN)	<u>AO:</u>	Structure resembling a hypertrophied nucleolus found in the nuclei of digestive diverticular cells of <u>Astarte castanea</u> . Structures acidophilic and often large, up to 5.6 $\mu$ m in diameter. Genesis, etiology, etc., unknown.
(PROT)	<u>AP:</u>	Ciliate resembling those observed in <u>Astartes</u> noted nestling among the digestive diverticular cells of <u>Placopecten magellanicus</u> .
(XKNN)	<u>AQ:</u>	Encysted unidentified metazoan in crab.
(MICR)	<u>AR:</u>	Bacterial disease of <u>Pontophilus</u> , bacteria scattered throughout stroma and muscle.
(TREM)	<u>AS:</u>	Trematode metacercaria in <u>Dichelopandalus leptocerus</u> .
(DINO)	<u>AT:</u>	A parasitic dinoflagellate, <u>Hematodinium</u> noted in haemal spaces of <u>Cancers</u> . Reference: M.W. Newman and C.A. Johnson, J. Parasitol. <u>61</u> :554 (1975).



## APPENDIX B

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst formed by host cells in response to invasion of gill tissue by <u>Synophyra</u> .
(MELC)	<u>AB</u> :	Melanized cyst encapsulating trematode metacercaria.
(ENCP)	<u>AC</u> :	Cyst encapsulating unidentified organism.
(INFM)	<u>AD</u> :	Agent has evoked "inflammatory" response.
(INFL)	<u>AE</u> :	Invasion of gonad by ciliates triggered host response; large numbers of host blood cells migrated into gonad and were found clustered around the ciliates.
(PHAG)	<u>AF</u> :	Large, granular blood cells, presumably phagocytes, found in vicinity of parasite.

## APPENDIX C

(Prefix)	<u>Code:</u>	Description
(MELC)	<u>AA:</u>	Melanized cyst, approximately 48 x 39 $\mu$ m. Etiology unknown.
(MELS)	<u>AB:</u>	Melanized spots, scales, on gill surface.
(MELC)	<u>AC:</u>	Melanized cyst surrounded by blood cells, some of which were observed to be dividing.
(MELC)	<u>AD:</u>	Small melanized cyst, approximately 20 $\mu$ m in diameter.
(MELC)	<u>AE:</u>	Mixture of small and large melanized cysts, 20-60 $\mu$ m diameter.
(MELC)	<u>AF:</u>	Melanized cysts at base of gill lamellae.
(MELC)	<u>AH:</u>	Large melanized cysts, approximately 65-68 $\mu$ m in diameter.
(FIBR)	<u>AI:</u>	Digestive diverticula of <u>Crangon</u> scarred and infiltrated by blood cells.
(HYPL)	<u>AJ:</u>	Blood cell hyperplasia.
(INFM)	<u>AK:</u>	Localized "inflammatory" response in thoracic musculature of <u>Dichelopandalus</u> .
(MELZ)	<u>AP:</u>	Entire cuticular portion of gill lamella mel- anized.
(HYPT)	<u>AR:</u>	Hypertrophied connective tissue storage cells.
(INFM)	<u>AS:</u>	Whorls of blood cells.

ERROR CORRECTION DOCUMENTATION FORM

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

1) File Type: F011

2) Project Ident.: VIMS-OCS

3) Track Nos.: TR1413

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR1413

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM258	SL	87	87	9-tu 1600 B.P.I. EBCDIC	
Duplicate	W10091	SL	87	4350	9-tu 1600 B.P.I. ASCII	
Reformatted						
First User						
Final User						

DATA SET ROUTE SHEET

ACCESSION/TRACK # 7700455/TR1413

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/16/83	<del>8182</del>	VCM258	3	87	87	
DUADI/SCAN TAPE	3/16/83	<del>8182</del>	W10091	3	4350	87	
ASSIGNED FOR PROCESS.							
PDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							



VCM260

DATA DOCUMENTATION FORM

TR1414

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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

Virginia Institute of Marine Sciences Gloucester Pt., Virginia 23062

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

BLM

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

BLM02W

4. PLATFORM NAME(S)

G.W. Pierce

5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.)

Ship

6. PLATFORM AND OPERATOR NATIONALITY(IES)

USA

USA

7. DATES

FROM: MO/DAY/YR 2/4/76

TO: MO/DAY/YR 2/17/76

8. ARE DATA PROPRIETARY?

NO  YES

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

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

GENERAL AREA

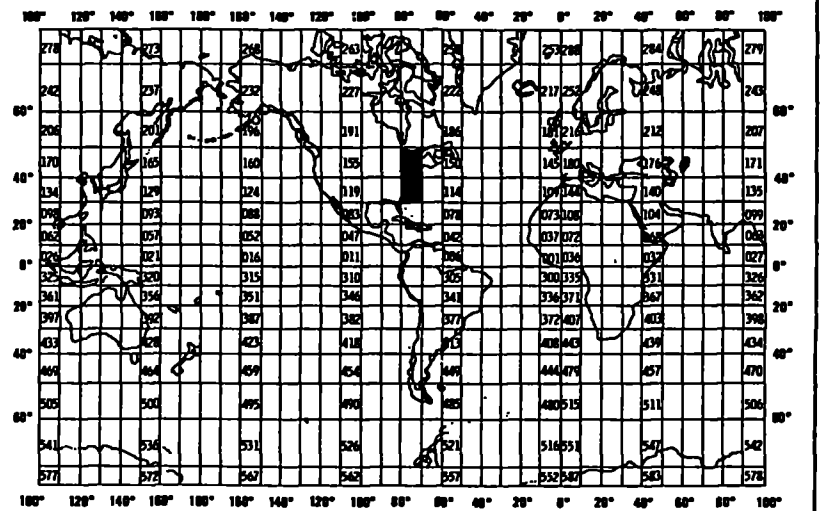
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?

(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)

NO  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)

Dr. Gerald L. Engel VIMS Gloucester Pt., Va. 23062





## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

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
Latitude & Long	Degrees, mins., seconds	Loran C SINRAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude.
Latitudinal hemisphere	N or S			
Longitudinal hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Sea state	IMO Code 4577	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		

NAME OF FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION AND INSTRUMENTS USED (SPEC BY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDE MODIFICATIONS) AND LABORATORY PROCEDURES	DATA PROCESSING TECHNIQUES (FILTERING AND AVERAGING)
Cloud cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	seconds	Wrist watch - visual observation		
Swell period	seconds	Wrist watch - visual observation		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for each sample Positions 1-10 identical to last data record, "998" - position 11-13
8. File terminator Positions 1-10 Identical to last data record, "999" in positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN
- |   |                                |                                |
|---|--------------------------------|--------------------------------|
| <input type="checkbox"/> PL-1               | <input type="checkbox"/> ALGOL | <input type="checkbox"/> COBOL |
| <input checked="" type="checkbox"/> FORTRAN | <input type="checkbox"/> _____ | LANGUAGE                       |

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD    <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII    <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF TYPE, VOLUME NUMBER)</p> <p>VCM339 Virginia Institute of Marine Science HISTOPATHOLOGY File Label = 'HISTOP.011.BLMORW'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI    <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>87</p>
	<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES <small>(e.g. bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise id (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institutions Responsible for data.
Investigator	64	24	Chars	24A1	

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM-1 MEASURED IN Bytes (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
lab sample no.	14	5	Chars	5A1	Sample identifier
latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
WDepth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	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 Blank
Blank	52	36	Bytes	36X	

\*Decimal place IMPLIED: "period" is not present.

RECORD FORMAT DESCRIPTION

31510p

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN FILE  (e.g., 370, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	32	Bytes	32X	Blank

\*Decimal place is IMPLIED; "period" is not present



RECORD FORMAT DESCRIPTION

RECORD NAME

14. NAME	15. POSITION FROM-1 MEASURED IN (e.g., 0th, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "3" Terminator</b>					
Record type	1	10	Bytes	A3, 3I2 A1	Same as Sample Header Record 2
Sequence	11	3	Chars		"998" (Constant)
Blank	14	74	Bytes		Blank
<b>Sample Header Record 3</b>					
Record type	1	3	Chars	A3	"011" (Constant)
Record Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (Third sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Blank	19	33	Bytes	33X	
Trawl	52	6	Chars	6A1	Trawl number
Specimen No.	58	5	Bytes	I5	Specimen number
Specimen sub.	63	5	Bytes	I5	Specimen subnumber
Specimen type	68	5	Bytes	I5	Specimen type (see attached sheet)
Species	73	10	Chars	10A1	Species (NODC code)
Size	83	5	Bytes	I5	Size (mm)

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "4" Terminator					
Sequence	1	10	Bytes	A3,3I2,A1	Same as sample header record 3
Blank	11	3	Chars	A3	"998" (constant)
	14	74	Bytes	74X	Blank
<u>Data Record</u>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"5" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Specimen No.	19	5	Bytes	I5	Specimen number
Subnumber	24	2	Bytes	I2	Specimen subnumber
Fixative	26	1	Bytes	I1	Fixative 1=Dietrichs
Embedding	27	1	Bytes	I1	Type Embedding 1=Paraffin
Stains	28	1	Bytes	I1	Stains 1=Harris Hematoxylin and Eosin
Sex	29	1	Chars	A1	Sex M=male F=female H=male & female X=cannot determine
Stage 1	30	1	Bytes	I1	Stage 1 gonad (Primordial gonad) 0=absent 1=present
Stage 2	31	1	Bytes	I1	Stage 2 gonad (premeiotic gonad; previtellogenic gonad; primary oocytes spermatocytes) 0=absent 1=present
Stage 3	32	1	Bytes	I1	Stage 3 gonad (postmeiotic gonad; intellogenic gonad-primary oocytes or sperm) 0=absent 1=present 2=yoked eggs only
Abundance	33	1	Bytes	I1	Relative abundance of stage 3 cells 0=does not apply 1=very few 2=moderate numbers 3=many 4=none

RECORD FORMAT DESCRIPTION

NAME \_\_\_\_\_

D NAME	15. POSITION FROM -1 MEASURED IN 7-000 (No. 8th. by 1st)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
4	34	1	Bytes	I1	Stage 4 gonad (spawned out or resting gonad) 1=has appearance of spawned out, but could be confused with stage 1,2, or early 3 gonad 2=Most definitely spawned out gonad 3=most definitely spawned out gonad invaded by amoebocytes
	35	1	Bytes	I1	Mixed gonad (stages 1,2, or 3& 4) 0=absent 1=present
	36	1	Byte	I1	Spermatophores 0=absent 1=present
	37	1	Byte	I1	Eggs - 2N 1=early 2=late 0=Absent
	38	4	Chars	A4	Symbionts, general (see appendix A) (prefix)
	42	2	Chars	A2	Symbionts, Specific (see appendix A) (code)
	44	1	Byte	I1	Symbionts, Type 0=absent 1=parasitic 2=commensal 3=commensal, but large numbers indicate physiol. Impairment
ve	45	1	Byte	I1	Relative numbers 0=none 1=few 2=moderate numbers, 3=many
	46	1	Byte	I1	Ecto - or endoparasite 0=absent 1=ecto 2=endo 3=both
	47	2	Bytes	I2	Tissues parasitized 00=none (see specimen type codes)
	49	1	Byte	I1	Extra - or intracellular parasite 0=does not apply 1=intra 2=extra 3=both 4=cannot determine

RECORD FORMAT DESCRIPTION

NAME

LD NAME	15. POSITION FROM -1 MEASURED IN (e.g., 000, 0000)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
	50	4	Chars	A4	Host response, general NONE=none (see appendix B (prefix))
	54	2	Chars	A2	Host response, specific 00=none (see appendix B (code))
	56	1	Byte	I1	Degree host response 0=none 1=slight 2=moderate 3=severe
	57	1	Byte	I1	Lesions-undertermined origin 0=none 1=local 2=systemic
	58	2	Bytes	I2	Lesions - site 00=none (See specimen type codes)
	60	4	Chars	A4	Lesions - host response NONE=none (see appendix C (prefix))
	64	2	Chars	A2	Lesions, description (See appendix C (code))
	66	1	Byte	I1	Degree response 0=none 1=slight 2=moderate 3=severe
	67	1	Byte	I1	Number of lesions 0=none 1=very few 2=moderate numbers 3=many
	68	20	Bytes	20X	

# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Data Record Terminator</b>					
Percent	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank
<b>File Terminator</b>					
Percent	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank

#### 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 MEASUREMENT TECHNIQUE

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

Specimen Type Codes

- 01 stomach (may also include upper intestine)
- 02 lower intestine
- 03 upper intestine
- 04 foot
- 05 mantle
- 06 gill
- 07 heart
- 08 liver
- 09 spleen
- 10 hepatopancreas and/or digestive diverticulae
- 11 adductor muscle
- 12 siphon
- 13 striated musculature
- 14 testes
- 15 ovary
- 16 whole animal
- 17 right half
- 18 left half
- 19 cephalothorax and abdomen
- 20 abdomen
- 21 cephalothorax
- 22 anterior half
- 23 posterior half
- 24 1/5 of echinoderm
- 25 2/5 of echinoderm
- 26 chela and/or chela joint
- 27 gonad (sex indeterminate)
- 28 intestine
- 29 midway between gill and anus
- 30 1/4 of animal - between gill and anus
- 31 testes and hepatopancreas combined
- 32 longitudinal or center of sand dollar
- 33 visceral mass (denotes various combined organs of digestive and reproductive system)
- 34 muscle and gill
- 35 kidney or nephridium
- 36 adductor muscle plus visceral mass
- 37 gill and mantle
- 38 gall bladder
- 39 starfish arm
- 40 starfish disc
- 41 unknown parasite
- 42 eye and eye stalk
- 43 crystalline style
- 44 telson
- 45 membrane or "skin" of crab
- 46 sperm plug (in female crab)
- 47 operculum of fish (gill cover)
- 48 vas deferens



## APPENDIX A

(Prefix)	<u>Code:</u>	Description
(PROT)	<u>AA:</u>	Benign exuviotrophic apostome ciliates, approximately 15 $\mu\text{m}$ in length, found on the gill lamellae of <u>Cranon septemspinosa</u> , <u>Pontophilus brevirostris</u> , and <u>Cancer irroratus</u> . Ciliates did not elicit host response or cause degenerative changes. Reference: B.H. Grimes, J. Protozool. <u>23</u> :246 (1976).
(PROT)	<u>AB:</u>	Commensal peritrich ciliates, approximately 40 x 66 $\mu\text{m}$ with large, horseshoe-shaped macronucleus on the exterior of the echinoderms. Genus, species, unknown.
(XKNV)	<u>AC:</u>	Unidentified copepods found on crab gills. Size approximately 83 x 44 $\mu\text{m}$ .
(MICR)	<u>AD:</u>	Filamentous epiphytic bacteria found growing on crab gills.
(XKNV)	<u>AE:</u>	Large, copepod-like crustacea. Size approximately 165 $\mu\text{m}$ .
(PROT)	<u>AF:</u>	The parasitic apostome ciliate, <u>Synophrya</u> , was determined to be the etiologic agent causing gill black spot disease in <u>Dichelopandalus leptocerus</u> . This ciliate penetrated the gill lamellae of <u>D. leptocerus</u> , and replicated in a cyst-like structure derived from melanized host cells. Not all shrimp were "infected" (see First Annual Report to BLM from VIMS). Reference: C.A. Johnson and P.C. Bradbury, J. Protozool. <u>23</u> : 252 (1976).
• (TREM)	<u>AG:</u>	Branching trematode sporocysts resembling those of <u>Bucephalus</u> sp. were observed ramifying throughout the gonads of <u>Astarte castanea</u> . Sporocysts also observed in gill haemal spaces in heavily infected individuals. Reference: T.C. Cheng and R.W. Burton, Chesapeake Sci. <u>6</u> :3 (1965).
(XKNV)	<u>AH:</u>	DNA-positive cytoplasmic inclusion bodies, approximately 14 $\mu\text{m}$ in diameter, found in the cells of the digestive diverticula of <u>Astarte castanea</u> and <u>A. unilata</u> ; similar inclusions also found in <u>Placopecten magellanicus</u> . Marshbarger (Registry of Tumors for Lower Animals) has recently found inclusion bodies in the digestive diverticular cells of clams and oysters and has

(Prefix)	<u>Code</u> :	Description
		noted organisms resembling rickettsia and mycoplasmas in the inclusion bodies.
(TREM)	<u>AI</u> :	Trematode metacercaria found in musculature of <u>Crançon septemspinosa</u> . Not identified.
(XKNN)	<u>AJ</u> :	DNA-positive cytoplasmic inclusion bodies- <u>cf.</u> (XKNN) <u>AH</u> .
(PROT)	<u>AK</u> :	<u>Orchitophyra stellarum</u> , an astomatic ciliate parasitic on the gonads of various species of <u>Asterias</u> , was found in the gonads of sea stars. Reference: H. Vevers, J. Mar. Biol. Assoc. <u>29</u> : 619 (1951).
(PROT)	<u>AL</u> :	Ciliates of unknown affinity were observed nestling among the digestive diverticular cells of the <u>Astartes</u> ; these ciliates were round to oval in cross-section, approximately 1-4 $\mu$ m in diameter, and possessed a number of small "micronuclei." Ciliates did not appear to have a macronucleus. No host response or tissue damage associated with this organism.
(XKNN)	<u>AM</u> :	Unknown metazoan in gut of <u>Astarte</u> .
(TREM)	<u>AN</u> :	Trematode metacercaria found in musculature of <u>Pontophilus brevirostris</u> .
(XKNN)	<u>AO</u> :	Structure resembling a hypertrophied nucleolus found in the nuclei of digestive diverticular cells of <u>Astarte castanea</u> . Structures acidophilic and often large, up to 6.6 $\mu$ m in diameter. Genesis, etiology, <u>etc.</u> , unknown.
(PROT)	<u>AP</u> :	Ciliate resembling those observed in <u>Astartes</u> noted nestling among the digestive diverticular cells of <u>Placopecten magellanicus</u> .
(XKNN)	<u>AQ</u> :	Encysted unidentified metazoan in crab.
(MICR)	<u>AR</u> :	Bacterial disease of <u>Pontophilus</u> , bacteria scattered throughout stroma and muscle.
(TREM)	<u>AS</u> :	Trematode metacercaria in <u>Dichelopandalus leptocerus</u> .
(DINO)	<u>AT</u> :	A parasitic dinoflagellate, <u>Hematodinium</u> noted in haemal spaces of <u>Cancers</u> . Reference: M.W. Newman and C.A. Johnson, J. Parasitol. <u>61</u> :554 (1975).

## APPENDIX B

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst formed by host cells in response to invasion of gill tissue by <u>Synophyrea</u> .
(MELC)	<u>AB</u> :	Melanized cyst encapsulating trematode metacercaria.
(ENCY)	<u>AC</u> :	Cyst encapsulating unidentified organism.
(INFM)	<u>AD</u> :	Agent has evoked "inflammatory" response.
(INFL)	<u>AE</u> :	Invasion of gonad by ciliates triggered host response; large numbers of host blood cells migrated into gonad and were found clustered around the ciliates.
(PHAG)	<u>AF</u> :	Large, granular blood cells, presumably phagocytes, found in vicinity of parasite.

## APPENDIX C

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst, approximately 48 x 39 $\mu$ m. Etiology unknown.
(MELS)	<u>AB</u> :	Melanized spots, scales, on gill surface.
(MELC)	<u>AC</u> :	Melanized cyst surrounded by blood cells, some of which were observed to be dividing.
(MELC)	<u>AD</u> :	Small melanized cyst, approximately 20 $\mu$ m in diameter.
(MELC)	<u>AE</u> :	Mixture of small and large melanized cysts, 20-60 $\mu$ m diameter.
(MELC)	<u>AF</u> :	Melanized cysts at base of gill lamellae.
(MELC)	<u>AH</u> :	Large melanized cysts, approximately 65-68 $\mu$ m in diameter.
(FIBR)	<u>AI</u> :	Digestive diverticula of <u>Cranqon</u> scarred and infiltrated by blood cells.
(HYPL)	<u>AJ</u> :	Blood cell hyperplasia.
(INFM)	<u>AK</u> :	Localized "inflammatory" response in thoracic musculature of <u>Dichelopandalus</u> .
(MELZ)	<u>AP</u> :	Entire cuticular portion of gill lamella melanized.
(HYPT)	<u>AR</u> :	Hypertrophied connective tissue storage cells.
(INFM)	<u>AS</u> :	Whorls of blood cells.

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: FOI
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1414

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700955

TRACK NO(s): TR 1414

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM260	SL	87	87	9-L 1600 BPI EBCDIC	
Duplicate	W10131	SL	87	4350	9-L 1600 BPI ASCII	
Reformatted						
First User						
Final User						

ACCESSION/TRACK # 7700455/JR1414

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
FOR TAPE	3/21/83	<del>9140</del>	VCM260	3	87	87	
SCAN TAPE	3/21/83	<del>9140</del>	W10131	3	4350	87	
ED FOR PROCESS.							
ALUATION							
Y REVIEW							
INARY DATA SORT							
INARY MULCHEK							
USER TAPE							
DISK FILE							
USER TAPE							
MULCHEK							
ED DISK FILE							
SET "FINALIZED"							

URING

over  
idings  
ngiturb

ACCESSION  
NUMBER

7700455

VCM262

DATA DOCUMENTATION FORM

TR1415

NOAA FORM 24-13  
(4-77)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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  
*Virginia Institute of Marine Sciences  
Gloucester Point, Virginia 23062*

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

3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT  
*BLM 03B*

4. PLATFORM NAME(S)  
*J.M. Gilliss*

5. PLATFORM TYPE(S)  
(E.G., SHIP, BUOY, ETC.)  
*Ship*

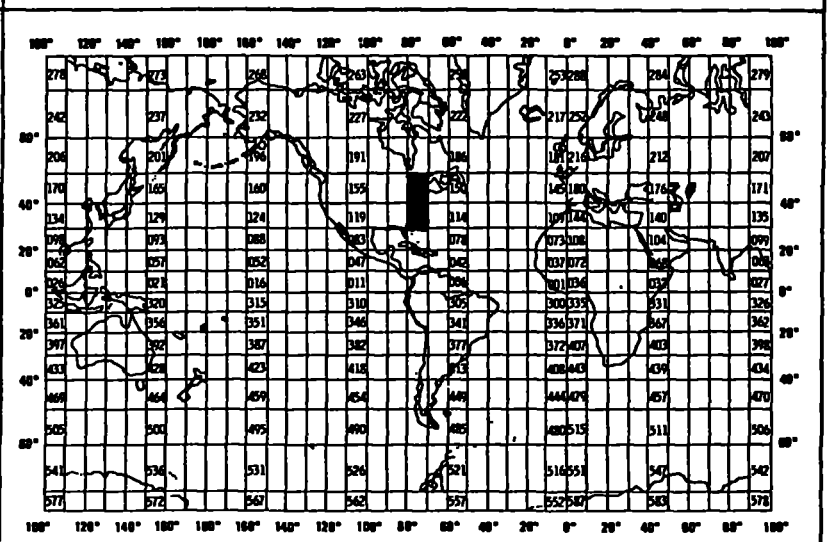
6. PLATFORM AND OPERATOR NATIONALITY(IES)  
*USA USA*

7. DATES  
FROM: *6/14/76* TO: *6/24/76*

8. ARE DATA PROPRIETARY?  
 NO  YES  
IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR \_\_\_ MONTH \_\_\_

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

9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)?  
(I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?)  
 NO  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)  
*Dr. Gerald L. Engel  
VIMS  
Gloucester Pt., Va. 23062*



## 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
Latitude & Long	degrees, mins., seconds	Loran C SIMPAD Model LC 101		Program used to convert from Loran C coordinates to Latitude & Longitude
Latitude	N or S			
Longitude	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dew-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4677	Visual estimate		
Cloud type	IMO Codes 0511, 0515, 0509	Visual estimate		

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
Wind cov:	WMO Code 2700	Visual observation		
Windy	WMO Code 4300	Visual observation		
Wave period	seconds	Wrist watch - visual observation		
Wave period	seconds	Wrist watch - visual observation		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header, "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for each sample Positions 1-10 identical to last data record, "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN  PL-1  ALGOL  COBOL  
 FORTRAN  \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:

NAME AND PHONE NUMBER Gerald L. Engel  
ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD <input type="checkbox"/> BINARY</p> <p><input type="checkbox"/> ASCII <input checked="" type="checkbox"/> EBCDIC</p> <p><input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/4 INCH <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN</p> <p><input checked="" type="checkbox"/> NINE</p> <p><input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17</p> <p><input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD</p> <p><input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME KEY SPECIFICATIONS OF TYPE, VOLUME NUMBER)</p> <p>VCM339 Virginia Institute of Marine Science HISTOPATHOLOGY File Label = 'HISTOP.011.BLM033'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI <input checked="" type="checkbox"/> 1600 BPI</p> <p><input type="checkbox"/> 356 BPI</p> <p><input type="checkbox"/> 800 BPI</p> <p><input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES 87</p> <p>13. LENGTH OF BYTES IN BITS 8</p>

## RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	(left-justified)
Investigator	64	24	Chars	24A1	Investigators & Institution Responsible for data.

RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

FIELD NAME	15. POSITION FROM - 1 MEASURED IN Bytes (e.g. bits, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lab sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lonhem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	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
Blank	52	36	Bytes	36X	Blank

\*Decimal place IMPLIED: "period" is not present.

RECORD NAME

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN - 1511 (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Percent	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	66	Bytes	66x	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year,month,day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Dry Bulb	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wet Bulb	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513,0515,0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1x	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	32	Bytes	32X	Blank

\*Decimal place is IMPLIED; "period" is not present

## RECORD FORMAT DESCRIPTION

RECORD NAME

14. FIELD NAME	15. POSITION FROM -1 MEASURED IN BYTES (e.g., 5th, byte)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "3" Terminator					
Ident	1	10	Bytes	A3, 3I2 A1	Same as Sample Header Record 2
Sequence	11	3	Chars		"998" (Constant)
Blank	14	74	Bytes		Blank
<b>Sample Header Record 3</b>					
File type	1	3	Chars	A3	"011" (Constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (Third sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Blank	19	33	Bytes	33X	
Trawl	52	6	Chars	6A1	Trawl number
Specimen No.	58	5	Bytes	I5	Specimen number
Specimen sub.	63	5	Bytes	I5	Specimen subnumber
Specimen type	68	5	Bytes	I5	Specimen type (see attached sheet)
Species	73	10	Chars	10A1	Species (NODC code)
Size	83	5	Bytes	I5	Size (mm)

NAME	15. POSITION FROM-1 MEASURED IN (e.g., bbs, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
"4" Terminator					
	1	10	Bytes	A3,3I2,A1	Same as sample header record 3
	11	3	Chars	A3	"998" (constnat)
	14	74	Bytes	74X	Blank
Record type	1	3	Chars	A3	"011" (constant)
date	4	6	Eytes	3I2	Year, month, day of file generation
type	10	1	Char	A1	"5" (data record)
ce	11	3	Bytes	I3	Sequence of this record type within sample
	14	5	Chars	5A1	Sample identifier
er No.	19	5	Bytes	I5	Specimen number
ber	24	2	Bytes	I2	Specimen subnumber
ive	26	1	Bytes	I1	Fixative 1=Dietrichs
ing	27	1	Bytes	I1	Type Embedding 1=Paraffin
	28	1	Bytes	I1	Stains 1=Harris Hematoxylin and Eosin
	29	1	Chars	A1	Sex M=male F=female H=male & female X=cannot determine
1	30	1	Bytes	I1	Stage 1 gonad (Primordial gonad) 0=absent 1=present
2	31	1	Bytes	I1	Stage 2 gonad (premeiotic gonad; previtellogenic gonad; primary oocytes spermatocytes) 0=absent 1=present
3	32	1	Bytes	I1	Stage 3 gonad (postmeiotic gonad; intellogenic gonad-primary oocytes or sperm) 0=absent 1=present 2=yoked eggs only
ance	33	1	Bytes	I1	Relative abundance of stage 3 cells 0=does not apply 1=very few 2=moderate numbers 3=many 4=none



RECORD FORMAT DESCRIPTION

15. POSITION FROM-1 MEASURED IN (e.g., 370, 37100)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
	NUMBER	UNITS		
34	1	Bytes	I1	Stage 4 gonad (spawned out or resting gonad) 1=has appearance of spawned out, but could be confused with stage 1,2, or early 3 gonad 2=Most definitely spawned out gonad 3=most definitely spawned out gonad invaded by anebocytes
35	1	Bytes	I1	Mixed gonad (stages 1,2, or 3 & 4) 0=absent 1=present
36	1	Byte	I1	Spermatophores 0=absent 1=present
37	1	Byte	I1	Eggs - 2N 1=early 2=late 0=Absent
38	4	Chars	A4	Symbionts, general (see appendix A) (prefix)
42	2	Chars	A2	Symbionts, Specific (see appendix A) (code)
44	1	Byte	I1	Symbionts, Type 0=absent 1=parasitic 2=commensal 3=commensal, but large numbers indicate physiol. Impairment
45	1	Byte	I1	Relative numbers 0=none 1=few 2=moderate numbers, 3=many
46	1	Byte	I1	Ecto - or endoparasite 0=absent 1=ecto 2=endo 3=both
47	2	Bytes	I2	Tissues parasitized 00=none (see specimen type codes)
49	1	Byte	I1	Extra - or intracellular parasite 0=does not apply 1=intra 2=extra 3=both 4=cannot determine

RECORD FORMAT DESCRIPTION

PLANE

15. POSITION FROM-1 MEASURED IN (No. of bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
	NUMBER	UNITS		
34	1	Bytes	I1	Stage 4 gonad (spawned out or resting gonad) 1=has appearance of spawned out, but could be confused with stage 1,2, or early 3 gonad 2=Most definitely spawned out gonad 3=most definitely spawned out gonad invaded by amoebocytes
35	1	Bytes	I1	Mixed gonad (stages 1,2, or 3, 4) 0=absent 1=present
36	1	Byte	I1	Spermatophores 0=absent 1=present
37	1	Byte	I1	Eggs - 2N 1=early 2=late 0=Absent
38	4	Chars	A4	Symbionts, general (see appendix A) (prefix)
42	2	Chars	A2	Symbionts, Specific (see appendix A) (code)
44	1	Byte	I1	Symbionts, Type 0=absent 1=parasitic 2=commensal 3=commensal, but large numbers indicate physiol. Impairment
45	1	Byte	I1	Relative numbers 0=none 1=few 2=moderate numbers, 3=many
46	1	Byte	I1	Ecto - or endoparasite 0=absent 1=ecto 2=endo 3=both
47	2	Bytes	I2	Tissues parasitized 00=none (see specimen type codes)
49	1	Byte	I1	Extra - or intracellular parasite 0=does not apply 1=intra 2=extra 3=both 4=cannot determine

## RECORD FORMAT DESCRIPTION

NAME

NAME	15. POSITION FROM -1 MEASURED IN: (No. of bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
	50	4	Chars	A4	Host response, general NONE=none (see appendix B (prefix))
	54	2	Chars	A2	Host response, specific 00=none (see appendix B (code))
	56	1	Byte	I1	Degree host response 0=none 1=slight 2=moderate 3=severe
n	57	1	Byte	I1	Lesions-underdetermined origin 0=none 1=local 2=systemic
	58	2	Bytes	I2	lesions - site 00=none (See specimen type codes)
ons	60	4	Chars	A4	lesions - host response NONE=none (see appendix C (prefix))
p	64	2	Chars	A2	Lesions, description (See appendix C (code))
e	66	1	Byte	I1	Degree response 0=none 1=slight 2=moderate 3=severe
	67	1	Byte	I1	Number of lesions 0=none 1=very few 2=moderate numbers 3=many
	68	20	Bytes	20X	

# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN BYTES <small>(e.g., 070, 0700)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank

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 MEASUREMENT TECHNIQUE

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

Specimen Type Codes

- 01 stomach (may also include upper intestine)
- 02 lower intestine
- 03 upper intestine
- 04 foot
- 05 mantle
- 06 gill
- 07 heart
- 08 liver
- 09 spleen
- 10 hepatopancreas and/or digestive diverticulae
- 11 adductor muscle
- 12 siphon
- 13 striated musculature
- 14 testes
- 15 ovary
- 16 whole animal
- 17 right half
- 18 left half
- 19 cephalothorax and abdomen
- 20 abdomen
- 21 cephalothorax
- 22 anterior half
- 23 posterior half
- 24 1/5 of echinoderm
- 25 2/5 of echinoderm
- 26 chela and/or chela joint
- 27 gonad (sex indeterminate)
- 28 intestine
- 29 midway between gill and anus
- 30 1/4 of animal - between gill and anus
- 31 testes and hepatopancreas combined
- 32 longitudinal or center of sand dollar
- 33 visceral mass (denotes various combined organs of digestive and reproductive system)
- 34 muscle and gill
- 35 kidney or nephridium
- 36 adductor muscle plus visceral mass
- 37 gill and mantle
- 38 gall bladder
- 39 starfish arm
- 40 starfish disc
- 41 unknown parasite
- 42 eye and eye stalk
- 43 crystalline style
- 44 telson
- 45 membrane or "skin" of crab
- 46 sperm plug (in female crab)
- 47 operculum of fish (gill cover)
- 48 vas deferens

APPENDIX A

(Prefix)	Code:	Description
(PROT)	<u>AA:</u>	Benign exuviotrophic apostome ciliates, approximately 15 $\mu\text{m}$ in length, found on the gill lamellae of <u>Crangon septemspinosa</u> , <u>Pontophilus brevirostris</u> , and <u>Cancer irroratus</u> . Ciliates did not elicit host response or cause degenerative changes. Reference: B.H. Grimes, J. Protozool. <u>23</u> :246 (1976).
(PROT)	<u>AB:</u>	Commensal peritrich ciliates, approximately 40 x 66 $\mu\text{m}$ with large, horseshoe-shaped macronucleus on the exterior of the echinoderms. Genus, species, unknown.
(XXNN)	<u>AC:</u>	Unidentified copepods found on crab gills. Size approximately 83 x 44 $\mu\text{m}$ .
(MICR)	<u>AD:</u>	Filamentous epiphytic bacteria found growing on crab gills.
(XXNN)	<u>AE:</u>	Large, copepod-like crustacea. Size approximately 165 $\mu\text{m}$ .
(PROT)	<u>AF:</u>	The parasitic apostome ciliate, <u>Synophrya</u> , was determined to be the etiologic agent causing gill black spot disease in <u>Dichelopandalus leptocerus</u> . This ciliate penetrated the gill lamellae of <u>D. leptocerus</u> , and replicated in a cyst-like structure derived from melanized host cells. Not all shrimp were "infected" (see First Annual Report to BLM from VIMS). Reference: C.A. Johnson and P.C. Bradbury, J. Protozool. <u>23</u> : 252 (1976).
(TREM)	<u>AG:</u>	Branching trematode sporocysts resembling those of <u>Bucephalus</u> sp. were observed ramifying throughout the gonads of <u>Astarte castanea</u> . Sporocysts also observed in gill haemal spaces in heavily infected individuals. Reference: T.C. Cheng and R.W. Burton, Chesapeake Sci. <u>6</u> :3 (1965).
(XXNN)	<u>AH:</u>	DNA-positive cytoplasmic inclusion bodies, approximately 14 $\mu\text{m}$ in diameter, found in the cells of the digestive diverticula of <u>Astarte castanea</u> and <u>A. unilata</u> ; similar inclusions also found in <u>Placopecten magellanicus</u> . Harshbarger (Registry of Tumors for Lower Animals) has recently found inclusion bodies in the digestive diverticular cells of clams and oysters and has

(Prefix)	<u>Code</u> :	Description
		noted organisms resembling rickettsia and mycoplasmas in the inclusion bodies.
(TREM)	<u>AI</u> :	Trematode metacercaria found in musculature of <u>Cranon septemspinosa</u> . Not identified.
(XKNN)	<u>AJ</u> :	DNA-positive cytoplasmic inclusion bodies- <u>cf.</u> (XKNN) <u>AH</u> .
(PROT)	<u>AK</u> :	<u>Orchitophyra stellarum</u> , an astomatic ciliate parasitic on the gonads of various species of <u>Asterias</u> , was found in the gonads of sea stars. Reference: H. Vevers, J. Mar. Biol. Assoc. <u>29</u> : 619 (1951).
(PROT)	<u>AL</u> :	Ciliates of unknown affinity were observed nestling among the digestive diverticular cells of the <u>Astartes</u> ; these ciliates were round to oval in cross-section, approximately 1-4 $\mu$ m in diameter, and possessed a number of small "micronuclei." Ciliates did not appear to have a macronucleus. No host response or tissue damage associated with this organism.
(XKNN)	<u>AM</u> :	Unknown metazoan in gut of <u>Astarte</u> .
(TREM)	<u>AN</u> :	Trematode metacercaria found in musculature of <u>Pontophilus brevivirostris</u> .
(XKNN)	<u>AO</u> :	Structure resembling a hypertrophied nucleolus found in the nuclei of digestive diverticular cells of <u>Astarte castanea</u> . Structures acidophilic and often large, up to 6.6 $\mu$ m in diameter. Genesis, etiology, etc., unknown.
(PROT)	<u>AP</u> :	Ciliate resembling those observed in <u>Astartes</u> noted nestling among the digestive diverticular cells of <u>Placopecten magellanicus</u> .
(XKNN)	<u>AQ</u> :	Encysted unidentified metazoan in crab.
(MICR)	<u>AR</u> :	Bacterial disease of <u>Pontophilus</u> , bacteria scattered throughout stroma and muscle.
(TREM)	<u>AS</u> :	Trematode metacercaria in <u>Dichelopandalus leptocerus</u> .
(DINO)	<u>AT</u> :	A parasitic dinoflagellate, <u>Hematodinium</u> noted in haemal spaces of <u>Cancers</u> . Reference: M.W. Newman and C.A. Johnson, J. Parasitol. <u>61</u> :554 (1975).



APPENDIX B

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst formed by host cells in response to invasion of gill tissue by <u>Synophyra</u> .
(MELC)	<u>AB</u> :	Melanized cyst encapsulating trematode metacercaria.
(ENCY)	<u>AC</u> :	Cyst encapsulating unidentified organism.
(INFM)	<u>AD</u> :	Agent has evoked "inflammatory" response.
(INFL)	<u>AE</u> :	Invasion of gonad by ciliates triggered host response; large numbers of host blood cells migrated into gonad and were found clustered around the ciliates.
(PHAG)	<u>AF</u> :	Large, granular blood cells, presumably phagocytes, found in vicinity of parasite.

## APPENDIX C

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst, approximately 48 x 39 $\mu$ m. Etiology unknown.
(MELS)	<u>AB</u> :	Melanized spots, scales, on gill surface.
(MELC)	<u>AC</u> :	Melanized cyst surrounded by blood cells, some of which were observed to be dividing.
(MELC)	<u>AD</u> :	Small melanized cyst, approximately 20 $\mu$ m in diameter.
(MELC)	<u>AE</u> :	Mixture of small and large melanized cysts, 20-60 $\mu$ m diameter.
(MELC)	<u>AF</u> :	Melanized cysts at base of gill lamellae.
(MELC)	<u>AH</u> :	Large melanized cysts, approximately 65-68 $\mu$ m in diameter.
(FIBR)	<u>AI</u> :	Digestive diverticula of <u>Crançon</u> scarred and infiltrated by blood cells.
(HYPL)	<u>AJ</u> :	Blood cell hyperplasia.
(INFM)	<u>AK</u> :	Localized "inflammatory" response in thoracic musculature of <u>Dichelopandalus</u> .
(MELZ)	<u>AP</u> :	Entire cuticular portion of gill lamella mel- anized.
(HYPT)	<u>AR</u> :	Hypertrophied connective tissue storage cells.
(INFM)	<u>AS</u> :	Whorls of blood cells.

DATE:

TO: OC12

FROM: OC13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700455

- 1) File Type: F011
- 2) Project Ident.: VIMS-OC5
- 3) Track Nos.: TR1415

I. Error Corrections as reported to Principal Investigator:

Error

Correction Completed (Check)

II. Additional error corrections:

Error

Correction Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR1415

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM262	SL	87	87	9-t 1600 BPI EBCDIC	
Duplicate	W10039	SL	87	4350	9-t 1600 BPI ASCII	
Reformatted						
First User						
Final User						

ACCESSION/TRACK # 7700455/TR1415

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
ORIGINATOR TAPE	3/16/83	<del>8782</del>	VCM262	3	87	87	
QUADI/SCAN TAPE	3/16/83	<del>8782</del>	W10039	3	4350	87	
ASSIGNED FOR PROCESS.							
DDF EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
FIRST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
EDITED DISK FILE							
DATA SET "FINALIZED"							

VC M 264 DATA DOCUMENTATION FORM

TR 1416

NOAA FORM 24-13 (4-77)

U.S. DEPARTMENT OF COMMERCE  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEANOGRAPHIC DATA CENTER  
RECORDS SECTION  
WASHINGTON, DC 20235

FORM APPROVED  
O.M.B. No. 41-R2651  
EXPIRES 1-81

(While you are not required to use this form, it is the most desirable mechanism for providing the required ancillary information enabling the NODC and users to obtain the greatest benefit from your data.)

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 <i>Virginia Institute of Marine Science Gloucester Point, Virginia 23062</i>			
2. EXPEDITION, PROJECT, OR PROGRAM DURING WHICH DATA WERE COLLECTED <i>BLM</i>		3. CRUISE NUMBER(S) USED BY ORIGINATOR TO IDENTIFY DATA IN THIS SHIPMENT <i>BLM04T</i>	
4. PLATFORM NAME(S) <i>C. Henlopen</i>	5. PLATFORM TYPE(S) (E.G., SHIP, BUOY, ETC.) <i>Ship</i>	6. PLATFORM AND OPERATOR NATIONALITY(IES)	
		PLATFORM <i>USA</i>	OPERATOR <i>USA</i>
		7. DATES FROM: <i>8/23/76</i> TO: <i>8/27/76</i>	
8. ARE DATA PROPRIETARY? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES IF YES, WHEN CAN THEY BE RELEASED FOR GENERAL USE? YEAR _____ MONTH _____		11. PLEASE DARKEN ALL MARSDEN SQUARES IN WHICH ANY DATA CONTAINED IN YOUR SUBMISSION WERE COLLECTED.  <b>GENERAL AREA</b>	
9. ARE DATA DECLARED NATIONAL PROGRAM (DNP)? (I.E., SHOULD THEY BE INCLUDED IN WORLD DATA CENTERS HOLDINGS FOR INTERNATIONAL EXCHANGE?) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES <input type="checkbox"/> PART (SPECIFY BELOW)			
10. PERSON TO WHOM INQUIRIES CONCERNING DATA SHOULD BE ADDRESSED WITH TELEPHONE NUMBER (AND ADDRESS IF OTHER THAN IN ITEM-1) <i>Dr. Gerald L. Engel / VIMS Gloucester Point, Va. 23062</i>			

## B. SCIENTIFIC CONTENT

Include enough information concerning manner of observation, instrumentation, analysis, and data reduction routines to make them understandable to future users. Furnish the minimum documentation considered relevant to each data type. Documentation will be retained as a permanent part of the data and will be available to future users. Equivalent information already available may be substituted for this section of the form (i.e., publications, reports, and manuscripts describing observational and analytical methods). If you do not provide equivalent information by attachment, please complete the scientific content section in a manner similar to the one shown in the following example.

### EXAMPLE (HYPOTHETICAL INFORMATION)

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	‰	Nansen bottles	Inductive salinometer (Hytech model S510)	N/A (Not applicable)
		STD Bissett-Berman Model 9006	N/A	Values averaged over 5-meter intervals
Water color	Forel scale	Visual comparison with Forel bottles	N/A	N/A
Sediment size	φ units and percent by weight	Ewing corer	Standard sieves. Carbonate fraction removed by acid treatment	Same as "Sedimentary Rock Manual," Folk '65

(SPACE IS PROVIDED ON THE FOLLOWING  
TWO PAGES FOR THIS INFORMATION)

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 INCLUDING FILTERING AND AVERAGING
Latitude & Long.	Degrees, min., seconds	Loran C SIMPAD Model LC 101		Program used to convert from Loran C coordinates to latitude & longitude
Latitudinal Hemisphere	N or S			
Longitudinal Hemisphere	E or W			
Station time	GMT to nearest tenth of an hr.	Wrist Watch checked daily with WWV		
Water depth	to nearest tenth of a meter	Fathometer		
Water sample depth	to nearest meter	G. M. Meter Wheel		
Surface water temperature	°C to nearest tenth	Mercury in glass stem thermometer		
Barometric pressure	Millibars, tens to tenths	Danforth Aneroid Barometer Model 310		
Wet-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Dry-bulb air temperature	°C to nearest tenth	Aspirated Psychrometer Bendix Model 566		
Wind direction	Tens of degrees IMO Code 0877	Ship's Anemometer Bendix Model 120/135		
Wind Speed	knots	Ship's Anemometer Bendix Model 120/135		
Wave direction	Tens of degrees IMO Code 0877	Ship's Compass		
Wave height	1/2 meters IMO Code 1555	Visual estimate		
Swell direction	Tens of degrees IMO Code 0877	Ship's Compass		
Swell height	1/2 meters IMO Code 1555	Visual estimate		
Weather	IMO Code 4577	Visual estimate		
Cloud type	IMO Codes 0513, 0515, 0509	Visual estimate		



NAME OF DATA FIELD	REPORTING UNITS OR CODE	METHODS OF OBSERVATION - INSTRUMENTS USED (SPECIFY TYPE AND MODEL)	ANALYTICAL METHODS (INCLUDING MODIFICATIONS) AND LABORATORY PROCEDURES	TECHNIQUES WITH FILTERING AND AVERAGING
Clear cover	WMO Code 2700	Visual observation		
Visibility	WMO Code 4300	Visual observation		
Wave period	seconds	Wrist watch - visual observation		
Wave period	seconds	Wrist watch - visual observation		

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

1. File Header "1" in position 10
2. Sample Header 1 "2" in position 10
3. Terminator for Sample Header 1 Positions 1-10 identical to last sample header, "998" in positions 11-13
4. Sample Header 2 "3" in position 10
5. Terminator for Sample Header 2 Positions 1-10 identical to the last sample header "998" in positions 11-13.
6. Data Record "4" in position 10
7. Terminator for data for Positions 1-10 identical to last data record, "998" - position 11-13
8. File Terminator Positions 1-10 identical to last data record, "999" in Positions 11-13

2. GIVE BRIEF DESCRIPTION OF FILE ORGANIZATION

First record is File Header. Following this are Sample Header records 1 & 2, each followed by a Terminator record. Following this are Data Records for that sample followed by Terminator record. Sample headers, terminators, data records, terminator sequence is repeated until final terminator record.

3. ATTRIBUTES AS EXPRESSED IN
- PL-I     ALGOL     COBOL  
 FORTRAN     \_\_\_\_\_ LANGUAGE

4. RESPONSIBLE COMPUTER SPECIALIST:  
 NAME AND PHONE NUMBER Gerald L. Engel  
 ADDRESS Gloucester Point, Virginia

COMPLETE THIS SECTION IF DATA ARE ON MAGNETIC TAPE

<p>5. RECORDING MODE</p> <p><input type="checkbox"/> BCD    <input type="checkbox"/> BINARY  <input type="checkbox"/> ASCII    <input checked="" type="checkbox"/> EBCDIC  <input type="checkbox"/> _____</p>	<p>9. LENGTH OF INTER-RECORD GAP (IF KNOWN): <input type="checkbox"/> 3/4 INCH  <input checked="" type="checkbox"/> 0.6 inch</p>
<p>6. NUMBER OF TRACKS (CHANNELS)</p> <p><input type="checkbox"/> SEVEN  <input checked="" type="checkbox"/> NINE  <input type="checkbox"/> _____</p>	<p>10. END OF FILE MARK</p> <p><input type="checkbox"/> OCTAL 17  <input type="checkbox"/> _____</p>
<p>7. PARITY</p> <p><input checked="" type="checkbox"/> ODD  <input type="checkbox"/> EVEN</p>	<p>11. PASTE-ON-PAPER LABEL DESCRIPTION (INCLUDE ORIGINATOR NAME AND SOME LAY SPECIFICATIONS OF LABEL TYPE, VOLUME NUMBER)</p> <p>VCM339                  Virginia Institute of Marine Science                  HISTOPATHOLOGY                  File Label = 'HISTOP.011.BLMOPT'</p>
<p>8. DENSITY</p> <p><input type="checkbox"/> 200 BPI    <input checked="" type="checkbox"/> 1600 BPI  <input type="checkbox"/> 356 BPI  <input type="checkbox"/> 800 BPI  <input type="checkbox"/> _____</p>	<p>12. PHYSICAL BLOCK LENGTH IN BYTES</p> <p>87</p>
	<p>13. LENGTH OF BYTES IN BITS</p> <p>8</p>

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 INCLUDING FILTERING AND AVERAGING
Clock count	WMO Code 2700	Visual observation		
Frequency	WMO Code 4300	Visual observation		
Wave period	seconds	Wrist watch - visual observation		
Wave period	seconds	Wrist watch - visual observation		

RECORD FORMAT DESCRIPTION

RECORD NAME FILE HEADER

14. FIELD NAME	15. POSITION FROM - 1 MEASURED IN BYTES <small>(e.g., bits, bytes)</small>	16. LENGTH		17. ATTRIBUTES  (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
File type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"1" (File header record)
Vessel	11	11	Chars	11A1	Vessel name (left-justified)
Cruise	22	6	Chars	6A1	Originator's cruise identify (left-justified)
Cruise dates	28	17	Bytes	5 (I2,A1) I2	xx/xx/xx-xx/xx/xx Beginning year, month, day- ending year, month, day (left-justified)
Senior scientist	45	19	Chars	19A1	Investigators & Institution Responsible for data.
Investigator	64	24	Chars	24A1	

## RECORD FORMAT DESCRIPTION

RECORD NAME SAMPLE HEADER 1

1. RECORD NAME	15. POSITION FROM - 1 MEASURED IN BYTES (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES  FORTRAN	18. USE AND MEANING
		NUMBER	UNITS		
File Type	1	3	Chars	A3	"011" file type
File date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Chars	A1	"2" (first sample header record)
Sequence	11	3	Chars	A3	Sequence of this record type within sample
Lat sample no.	14	5	Chars	5A1	Sample identifier
Latitude	19	6	Bytes	3I2	Degrees, minutes, seconds
Lat hem	25	1	Char	A1	Hemisphere "N" or "S"
Longitude	26	7	Bytes	I3,2I2	Degrees, minutes, seconds
Lon hem	33	1	Char	A1	Hemisphere "E" or "W"
Time	34	3	Byte	F3.1*	Sample time (GMT to nearest tenth of an hour)
Date	37	8	Bytes	2(I2,A1)I2	Sample date in form xx/xx/xx (year, month, day)
Depth	45	5	Bytes	F5.1*	Water depth (to nearest tenth of a meter)
Navigation	50	2	Bytes	I2	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
Blank	52	36	Bytes	36X	Blank

\*Decimal place IMPLIED: "period" is not present.

RECORD NAME

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN BITS (e.g. 01m, 07m)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "2" Terminators</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Sample Header Record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	66	Bytes	66X	Blank
<b>Sample Header Record 2</b>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record Type	10	1	Char	A1	"3" (second sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Barometer	19	3	Bytes	F3.1*	Pressure in millibars
Air Temp	22	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wat. Temp	26	4	Bytes	F4.1*	Air temperature; degrees Celsius
Wind Direction	30	2	Bytes	I2	WMO code 0877; tens of degrees
Wind Speed	32	2	Bytes	I2	Knots
Wave Direction	34	2	Bytes	I2	WMO code 0877; tens of degrees
Wave Height	36	1	Byte	I1	WMO code 1555
Swell Direction	37	2	Bytes	I2	WMO code 0877; tens of degrees
Swell Height	39	1	Byte	I1	WMO code 1555
Weather	40	2	Bytes	I2	WMO code 4677
Cloud type	42	3	Bytes	I3	WMO codes 0513, 0515, 0509
Cloud Cover	45	1	Bytes	I1	WMO code 2700; percent of cloud cover
Visibility	46	1	Byte	I1	WMO code 4300
Blank	47	1	Byte	1X	Blank
Turbidity	48	1	Byte	I1	Turbidity measurement technique (see attached codes)
Wave Period	49	2	Bytes	I2	Seconds
Swell Period	51	2	Bytes	I2	Seconds
Sea SFC Temp	53	3	Bytes	F3.1*	Sea surface temperature degrees celsius
Blank	56	32	Bytes	32X	Blank

\*Decimal place is IMPLIED; "period" is not present

RECORD FORMAT DESCRIPTION

1. RECORD NAME	15. POSITION FROM 1 MEASURED IN (e.g., Bps, Bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Record Type "3" Terminator</b>					
Record Type	1	10	Bytes	A3, 3I2 A1	Same as Sample Header Record 2
Sequence	11	3	Chars		"998" (Constant)
Blank	14	74	Bytes		Blank
<b>Sample Header Record 3</b>					
File type	1	3	Chars	A3	"011" (Constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"4" (Third sample header record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample number identifier
Blank	19	33	Bytes	33X	
Trawl	52	6	Chars	6A1	Trawl number
Specimen No.	58	5	Bytes	I5	Specimen number
Specimen sub.	63	5	Bytes	I5	Specimen subnumber
Specimen type	68	5	Bytes	I5	Specimen type (see attached sheet)
Species	73	10	Chars	10A1	Species (NODC code)
Size	83	5	Bytes	I5	Size (mm)

14. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES	18. USE AND MEANING
		NUMBER	UNITS		
Record Type "4" Terminator					
Sequence	1	10	Bytes	A3,3I2,A1	Same as sample header record 3
Blank	11	3	Chars	A3	"998" (constant)
	14	74	Bytes	74X	Blank
<b>Data Record</b>					
File type	1	3	Chars	A3	"011" (constant)
File Date	4	6	Bytes	3I2	Year, month, day of file generation
Record type	10	1	Char	A1	"5" (data record)
Sequence	11	3	Bytes	I3	Sequence of this record type within sample
Sample	14	5	Chars	5A1	Sample identifier
Specimen No.	19	5	Bytes	I5	Specimen number
Subnumber	24	2	Bytes	I2	Specimen subnumber
Fixative	26	1	Bytes	I1	Fixative 1=Dietrichs
Embedding	27	1	Bytes	I1	Type Embedding 1=Paraffin
Stains	28	1	Bytes	I1	Stains 1=Harris Hematoxylin and Eosin
Sex	29	1	Chars	A1	Sex M=male F=female H=male & female X=cannot determine
Stage 1	30	1	Bytes	I1	Stage 1 gonad (Primordial gonad) 0=absent 1=present
Stage 2	31	1	Bytes	I1	Stage 2 gonad (premeiotic gonad; previtellogenic gonad; primary oocytes spermatocytes) 0=absent 1=present
Stage 3	32	1	Bytes	I1	Stage 3 gonad (postmeiotic gonad; intellogenic gonad-primary oocytes or sperm) 0=absent 1=present 2=yoked eggs only
Abundance	33	1	Bytes	I1	Relative abundance of stage 3 cells 0=does not apply 1=very few 2=moderate numbers 3=many 4=none



RECORD FORMAT DESCRIPTION

NAME

5. NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
4	34	1	Bytes	I1	Stage 4 gonad (spawned out or resting gonad) 1=has appearance of spawned out, but could be confused with stage 1, 2, or early 3 gonad 2=Most definitely spawned out gonad 3=most definitely spawned out gonad invaded by amoebocytes
	35	1	Bytes	I1	Mixed gonad (stages 1, 2, or 3 & 4) 0=absent 1=present
	36	1	Byte	I1	Spermatophores 0=absent 1=present
	37	1	Byte	I1	Eggs - 2N 1=early 2=late 0=Absent
	38	4	Chars	A4	Symbionts, general (see appendix A) (prefix)
	42	2	Chars	A2	Symbionts, Specific (see appendix A) (code)
	44	1	Byte	I1	Symbionts, Type 0=absent 1=parasitic 2=commensal 3=commensal, but large numbers indicate physiol. Impairment
	45	1	Byte	I1	Relative numbers 0=none 1=few 2=moderate numbers, 3=many
	46	1	Byte	I1	Ecto - or endoparasite 0=absent 1=ecto 2=endo 3=both
	47	2	Bytes	I2	Tissues parasitized 00=none (see specimen type codes)
	49	1	Byte	I1	Extra - or intracellular parasite 0=Does not apply 1=intra 2=extra 3=both 4=cannot determine

RECORD FORMAT DESCRIPTION

LD NAME

LD NAME	15. POSITION FROM-1 MEASURED IN: (No. of bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
	50	4	Chars	A4	Host response, general NONE=none (see appendix B (prefix))
	54	2	Chars	A2	Host response, specific 00=none (see appendix B (code))
	56	1	Byte	I1	Degree host response 0=none 1=slight 2=moderate 3=severe
	57	1	Byte	I1	Lesions-undertermined origin 0=none 1=local 2=systemic
	58	2	Bytes	I2	Lesions - site 00=none (See specimen type codes)
	60	4	Chars	A4	Lesions - host response NONE=none (see appendix C (prefix))
	64	2	Chars	A2	Lesions, description (See appendix C (code))
	66	1	Byte	I1	Degree response 0=none 1=slight 2=moderate 3=severe
	67	1	Byte	I1	Number of lesions 0=none 1=very few 2=moderate numbers 3=many
	68	20	Bytes	20X	

# RECORD FORMAT DESCRIPTION

RECORD NAME \_\_\_\_\_

4. FIELD NAME	15. POSITION FROM-1 MEASURED IN (e.g., bits, bytes)	16. LENGTH		17. ATTRIBUTES (FORTRAN)	18. USE AND MEANING
		NUMBER	UNITS		
<b>Data Record Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as Data Record
Sequence	11	3	Chars	A3	"998" (constant)
Blank	14	74	Bytes	74X	Blank
<b>File Terminator</b>					
Ident	1	10	Bytes	A3,3I2,A1	Same as data record
Sequence	11	3	Chars	A3	"999" (constant)
Blank	14	74	Bytes	74X	Blank

#### 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 MEASUREMENT TECHNIQUE

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

Specimen Type Codes

- 01 stomach (may also include upper intestine)
- 02 lower intestine
- 03 upper intestine
- 04 foot
- 05 mantle
- 06 gill
- 07 heart
- 08 liver
- 09 spleen
- 10 hepatopancreas and/or digestive diverticulae
- 11 adductor muscle
- 12 siphon
- 13 striated musculature
- 14 testes
- 15 ovary
- 16 whole animal
- 17 right half
- 18 left half
- 19 cephalothorax and abdomen
- 20 abdomen
- 21 cephalothorax
- 22 anterior half
- 23 posterior half
- 24 1/5 of echinoderm
- 25 2/5 of echinoderm
- 26 chela and/or chela joint
- 27 gonad (sex indeterminate)
- 28 intestine
- 29 midway between gill and anus
- 30 1/4 of animal - between gill and anus
- 31 testes and hepatopancreas combined
- 32 longitudinal or center of sand dollar
- 33 visceral mass (denotes various combined organs of digestive and reproductive system)
- 34 muscle and gill
- 35 kidney or nephridium
- 36 adductor muscle plus visceral mass
- 37 gill and mantle
- 38 gall bladder
- 39 starfish arm
- 40 starfish disc
- 41 unknown parasite
- 42 eye and eye stalk
- 43 crystalline style
- 44 telson
- 45 membrane or "skin" of crab
- 46 sperm plug (in female crab)
- 47 operculum of fish (gill cover)
- 48 vas deferens

APPENDIX A

(Prefix)	Code:	Description
(PROT)	<u>AA:</u>	Benign exuviotrophic apostome ciliates, approximately 15 $\mu\text{m}$ in length, found on the gill lamellae of <u>Cranion septemspinosa</u> , <u>Pontophilus brevirostris</u> , and <u>Cancer irroratus</u> . Ciliates did not elicit host response or cause degenerative changes. Reference: B.H. Grimes, J. Protozool. <u>23</u> :246 (1976).
(PROT)	<u>AB:</u>	Commensal peritrich ciliates, approximately 40 x 66 $\mu\text{m}$ with large, horseshoe-shaped macronucleus on the exterior of the echinoderms. Genus, species, unknown.
(XXCN)	<u>AC:</u>	Unidentified copepods found on crab gills. Size approximately 83 x 44 $\mu\text{m}$ .
(MICR)	<u>AD:</u>	Filamentous epiphytic bacteria found growing on crab gills.
(XXCN)	<u>AE:</u>	Large, copepod-like crustacea. Size approximately 165 $\mu\text{m}$ .
(PROT)	<u>AF:</u>	The parasitic apostome ciliate, <u>Synophrya</u> , was determined to be the etiologic agent causing gill black spot disease in <u>Dichelopandalus leptocerus</u> . This ciliate penetrated the gill lamellae of <u>D. leptocerus</u> , and replicated in a cyst-like structure derived from melanized host cells. Not all shrimp were "infected" (see First Annual Report to BLM from VIMS). Reference: C.A. Johnson and P.C. Bradbury, J. Protozool. <u>23</u> :252 (1976).
(TREM)	<u>AG:</u>	Branching trematode sporocysts resembling those of <u>Bucephalus</u> sp. were observed ramifying throughout the gonads of <u>Astarte castanea</u> . Sporocysts also observed in gill haemal spaces in heavily infected individuals. Reference: T.C. Cheng and R.W. Burton, Chesapeake Sci. <u>6</u> :3 (1965).
(XXCN)	<u>AH:</u>	DNA-positive cytoplasmic inclusion bodies, approximately 14 $\mu\text{m}$ in diameter, found in the cells of the digestive diverticula of <u>Astarte castanea</u> and <u>A. undata</u> ; similar inclusions also found in <u>Placopecten magellanicus</u> . Marshbarger (Registry of Tumors for Lower Animals) has recently found inclusion bodies in the digestive diverticular cells of clams and oysters and has

(Prefix)	<u>Code</u> :	Description
		noted organisms resembling rikettsia and mycoplasmas in the inclusion bodies.
(TREM)	<u>AI</u> :	Trematode metacercaria found in musculature of <u>Crancon septemspinos</u> . Not identified.
(XKNN)	<u>AJ</u> :	DNA-positive cytoplasmic inclusion bodies- <u>cf.</u> (XKNN) <u>AH</u> .
(PROT)	<u>AK</u> :	<u>Orchitophyra stellarum</u> , an astomatic ciliate parasitic on the gonads of various species of <u>Asterias</u> , was found in the gonads of sea stars. Reference: H. Vevers, J. Mar. Biol. Assoc. <u>29</u> : 619 (1951).
(PROT)	<u>AL</u> :	Ciliates of unknown affinity were observed nestling among the digestive diverticular cells of the <u>Astartes</u> ; these ciliates were round to oval in <u>cross-section</u> , approximately 1-4 $\mu$ m in diameter, and possessed a number of small "micronuclei." Ciliates did not appear to have a macronucleus. No host response or tissue damage associated with this organism.
(XKNN)	<u>AM</u> :	Unknown metazoan in gut of <u>Astarte</u> .
(TREM)	<u>AN</u> :	Trematode metacercaria found in musculature of <u>Pontophilus brevirostris</u> .
(XKNN)	<u>AO</u> :	Structure resembling a hypertrophied nucleolus found in the nuclei of digestive diverticular cells of <u>Astarte castanea</u> . Structures acidophilic and often large, up to 5.6 $\mu$ m in diameter. Genesis, etiology, <u>etc.</u> , unknown.
(PROT)	<u>AP</u> :	Ciliate resembling those observed in <u>Astartes</u> noted nestling among the digestive diverticular cells of <u>Placopecten magellanicus</u> .
(XKNN)	<u>AQ</u> :	Encysted unidentified metazoan in crab.
(MICR)	<u>AR</u> :	Bacterial disease of <u>Pontophilus</u> , bacteria scattered throughout <u>stroma and muscle</u> .
(TREM)	<u>AS</u> :	Trematode metacercaria in <u>Dichelopandalus leptocerus</u> .
(DINO)	<u>AT</u> :	A parasitic dinoflagellate, <u>Hematodinium</u> noted in haemal spaces of <u>Cancers</u> . Reference: M.W. Newman and C.A. Johnson, J. Parasitol. <u>61</u> :554 (1975).

APPENDIX B

(Prefix)	<u>Code</u> :	Description
(MELC)	<u>AA</u> :	Melanized cyst formed by host cells in response to invasion of gill tissue by <u>Synophyra</u> .
(MELC)	<u>AB</u> :	Melanized cyst encapsulating trematode metacercaria.
(ENCY)	<u>AC</u> :	Cyst encapsulating unidentified organism.
(INFM)	<u>AD</u> :	Agent has evoked "inflammatory" response.
(INFL)	<u>AE</u> :	Invasion of gonad by ciliates triggered host response; large numbers of host blood cells migrated into gonad and were found clustered around the ciliates.
(PHAG)	<u>AF</u> :	Large, granular blood cells, presumably phagocytes, found in vicinity of parasite.



## APPENDIX C

(Prefix)	<u>Code:</u>	Description
(MELC)	<u>AA:</u>	Melanized cyst, approximately 48 x 39 $\mu$ m. Etiology unknown.
(MELS)	<u>AB:</u>	Melanized spots, scales, on gill surface.
(MELC)	<u>AC:</u>	Melanized cyst surrounded by blood cells, some of which were observed to be dividing.
(MELC)	<u>AD:</u>	Small melanized cyst, approximately 20 $\mu$ m in diameter.
(MELC)	<u>AE:</u>	Mixture of small and large melanized cysts, 20-60 $\mu$ m diameter.
(MELC)	<u>AF:</u>	Melanized cysts at base of gill lamellae.
(MELC)	<u>AH:</u>	Large melanized cysts, approximately 65-68 $\mu$ m in diameter.
(FIBR)	<u>AI:</u>	Digestive diverticula of <u>Crangon</u> scarred and infiltrated by blood cells.
(HYPL)	<u>AJ:</u>	Blood cell hyperplasia.
(INFM)	<u>AK:</u>	Localized "inflammatory" response in thoracic musculature of <u>Dichelopandalus</u> .
(MELZ)	<u>AP:</u>	Entire cuticular portion of gill lamella mel- anized.
(HYPT)	<u>AR:</u>	Hypertrophied connective tissue storage cells.
(INFM)	<u>AS:</u>	Whorls of blood cells.

DATE:

TO: 0C12

FROM: 0C13

SUBJECT: Error Correction in Processing of Data Set - Accession # 7700955

- 1) File Type: FOII
- 2) Project Ident.: VIMS-OCS
- 3) Track Nos.: TR1416

## I. Error Corrections as reported to Principal Investigator:

ErrorCorrection Completed (Check)

## II. Additional error corrections:

ErrorCorrection Completed (Check)

III. Processor Name: \_\_\_\_\_

TAPE ASSIGNMENT SHEET

ACCESSION NO.: 7700455

TRACK NO(s): TR 1416

Type of Tape	Tape Number	Label	LRECL	BLKSIZE	RECFM	Remarks
Originator	VCM264	SL	87	87	9- <del>u</del> 1600 BPI EBCDIC	
Duplicate	W10676	SL	87	4350	9- <del>u</del> 1600 BPI ASCII	
Reformatted						
First User						
Final User						

Step	Completion Date/Init.		Tape # or DSN	# of Files	BLKSIZE	LRECL	# RECORDS
INITIATOR TAPE	3/11/83	<del>928</del>	VCM264	3	87	87	
INITIAL SCAN TAPE	3/11/83	<del>928</del>	W10676	3	4350	87	
DESIGNED FOR PROCESS.							
EVALUATION							
QUALITY REVIEW							
PRELIMINARY DATA SORT							
PRELIMINARY MULCHEK							
TEST USER TAPE							
WORK DISK FILE							
FINAL USER TAPE							
FINAL MULCHEK							
TESTED DISK FILE							
DATA SET "FINALIZED"							

Password:

accNo	fleA	refNo	proj	inst	ship	startDate	cruise	catId
7700455	L504	TR1407	0084	3128	32IC	1975/10/27	BLM01B	304123
7700455	L504	TR1408	0084	3128	31PP	1976/02/19	BLM02B	304124
7700455	L504	L01434	0084	3128	31GI	1976/06/14	BLM03B	304125
7700455	L504	TR1410	0084	3128	32IC	1975/10/27	BLM01B	304126
7700455	L504	TR1411	0084	3128	31PP	1976/02/04	BLM02W	304127
7700455	L504	TR1412	0084	3128	32CW	1976/08/23	BLM04T	304128
7700455	L522	TR1413	0084	3128	32IC	1975/10/27	BLM01B	304129
7700455	L522	TR1414	0084	3128	31PP	1976/02/04	BLM02W	304130
7700455	L522	L01435	0084	3128	31GI	1976/06/14	BLM03B	304131
7700455	L522	TR1416	0084	3128	32CW	1976/08/23	BLM04T	304132

(10 rows affected)

Password:

accNo	fleA	refNo	ship	staCnt	recCnt	startDate	endDate
7700455	L504	TR1407	32IC	144	0	75/10/27	75/11/06
7700455	L504	TR1408	31PP	298	0	76/02/19	76/03/23
7700455	L504	L01434	31GI	48	112720	76/06/14	76/06/24
7700455	L504	TR1410	32IC	31	0	75/10/27	75/11/06
7700455	L504	TR1411	31PP	46	0	76/02/04	76/02/17
7700455	L504	TR1412	32CW	49	0	76/08/23	76/08/27
7700455	L522	TR1413	32IC	561	0	75/10/27	75/11/06
7700455	L522	TR1414	31PP	1575	0	76/02/04	76/02/17
7700455	L522	L01435	31GI	1575	390891	76/06/14	76/06/24
7700455	L522	TR1416	32CW	636	0	76/08/23	76/08/27

(10 rows affected)