ment Tape Layout
Character Records

cord 1, File Header

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation, (year, month, day)
Character 10	"1"	Fixed-record type (denotes file header)
Characters 11-21	11 alpha	Vessel (left-justified)
Characters 22-27	6 alpha	Cruise number
Characters 28-44		Cruise dates in form xx/xx/xx-xx/xx/xx (year, month, day)
Characters 45-63	19 alpha	Senior Scientist (left-justified)
Characters 64-109	46 alpha	Investigator and institution responsible for data

cord 2, Station Header 1

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"2"	Record type (denotes station header)
Characters 11-13	"001"	Sequence number of record type*
Characters 14-18	5 alpha	Station number
Characters 19-25	6 numeric 1 alpha	Latitude (degrees, minutes, seconds, hemisphere -N or S)
Characters 26-33	7 numeric 1 alpha	Longitude (degrees, minutes, seconds, hemisphere -E or W)
Characters 34-36	3 numeric	Station time (GMT to nearest tenth of a hour)
Characters 37-44		Sample date in form xx/xx/xx (year, month, day)
Characters 45-49	5 numeric	Water depth (to nearest tenth of a meter)
Character 50	1 numeric	Gear: 1-Smith-McIntyre 2-Shipek 3-gravity core 4-box core 5-Vibro core 6-Ewing core 7-Hydrostatically Dr~~op~~Am ped Gravity core
Characters 51-52	2 numeric	Aliquot method 01-top 2-3cm of a 35mm diam. core from benthic grab 02-top cm scraped from surface of benthic grab 03-top 8-10cm scraped from Shipek grab
Character 53	1 numeric	Number of replicated taken at this station
Characters 54-55	2 numeric	Navigation 01-Loran A 02-Loran C 03-Radar and/or Fixes 04-Raydist (w/o complications) 05-Raydist (with errors, drifting, etc.) 06-Satellite 07-Omega
Character 56	1 numeric	Grain Size Analysis Method 1-sieves 2-sieves and settling tubes

		3-sieves and automated rapid sediment analyzer 4-sieves, automated rapid sediment analyzer and coulter counter 5-pipet
Character 57	blank	**
Character 58	1 numeric	%Carbon Method 1-Dry Combustion; Conrad, Chesters and Kenny (1970) 2-Hydrogen peroxide oxidation
Character 59	1 numeric	% Carbon Method 1-Gerchikov and Hatcher (1972)
Character 60	1 numeric	Number of bottom photographs taken
Characters 61-69	9 alpha	Sample color (according to the Munsell system)
Character 70	1 numeric	% Nitrogen method: 1-Kjeldahl
Characters 71-109	Blank	

* The last station header for each station is followed by a terminator record with characters 1-10 identical to the last station header, followed by 998 as characters 11-13, and with all other characters blank.

** % carbonate method of MESA Formats not determined in this study

Record 3, Station Header 2

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"2"	Fixed-record type (denotes station header)
Characters 11-13	"002"	Fixed-sequence number of record type*
Characters 14-18	5 alpha	Station number
Characters 19-21	3 numeric	Barometric pressure (in tens, units, and tenths of millibars)
Characters 22-25	4 numeric	Dry-bulb Air temperature (°C to nearest tenth)
Characters 26-29	4 numeric	Wet-bulb Air temperature (°C to nearest tenth)
Characters 30-31	2 numeric	Wind direction (Code giving tens of degrees) according to WMO Code 0877)
Characters 32-33	2 numeric	Wind Speed (to nearest knot)
Characters 34-35	2 numeric	Sea direction (code giving tens of degrees according to WMO Code 0885)
Character 36	1 numeric	Sea height (code giving height of waves according to WMO Code 1555)
Characters 37-38	2 numeric	Swell Direction (code giving tens of degrees, according to WMO Code 0885)
Character 39	1 numeric	Swell height (code giving height of swell according to WMO Code 1555)
Character 40	1 numeric	Weather (code giving weather according to WMO Code 4501)
Character 41	1 numeric	Cloud type (code giving cloud type according to WMO Code 0500)
Character 42	1 numeric	Cloud Cover (code giving percent of cloud cover according to WMO Code 2700)
Character 43	1 numeric	Visibility (code giving visibility according to WMO Code 4300)
Characters 44-47	4 numeric	Secchi Disk Depth (to nearest tenth of a meter)
Character 48	1 numeric	Turbidity measurement technique

1-Turbidometer, in JTU
2-Transmissometer, in % light transmission over 10cm path
3-Flurometer, suspended solids calibration

Characters 49-109 Blank

* The last station header for each station is followed by a terminator record with characters 1-10 identical to the last station header, followed by 998 in characters 11-13, and with all other characters blank.

Record 4, Data Record-Part 1

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"3"	Fixed-record type (denotes data record)
Characters 11-13	3 numeric	Sequence number of record type*
Characters 14-18	5 alpha	Station number
Characters 19-20	2 numeric	Replicate number
Character 21	"1"	Part number of data record
Characters 22-25	4 numeric	Mean grain size (Ø units, 2 decimals, i.e. xx.xx)
Characters 26-29	4 numeric	Median grain size (Ø units, 2 decimals)
Characters 30-33	4 numeric	Modal grain size (Ø units, 2 decimals)
Characters 34-37	4 numeric	Standard Deviation (Ø units, 2 decimals)
Characters 38-41	4 numeric	Skewness (Ø units, 2 decimals)
Characters 42-45	4 numeric	Kurtosis (Ø units, 2 decimals)
Characters 46-49	4 numeric	Sort, Parameter (2 decimals)
Characters 50-53	blank	**
Characters 54-57	4 numeric	% Carbon (2 decimals)
Characters 58-61	4 numeric	% Carbonhydrate (2 decimals)
Characters 62-65	4 numeric	% $>$ -1Ø, i.e. % Gravel (2 decimals Places)
Characters 66-69	4 numeric	% -1Ø to 4Ø, i.e. % sand (2 decimals)
Characters 70-73	4 numeric	% $<$ 4Ø i.e. % fines (2 decimals)
Characters 74-77	4 numeric	Ø Maxium, i.e. coarsest (2 decimals)
Characters 78-81	4 numeric	Ø Minimum, i.e. finest (2 decimals)
Characters 82-85	4 numeric	Ø Increment (2 decimals)
Characters 86-89	4 numeric	% Ø>Max. Ø (2 decimals)
Characters 80-93	4 numeric	% Ø<Min. Ø (2 decimals)
Characters 94-97	4 numeric	% Q_0 to $Ø_1$, where Ø.=Qmax, the coarsest (lowest numerical) reported value (2 decimals)
Characters 98-101	4 numeric	%$Ø_1$ to $Ø_2$ (2 decimals)
Characters 102-105	4 numeric	%$Ø_2$ to $Ø_3$ (2 decimals)
Characters 106-109	4 numeric	%$Ø_3$ to $Ø_4$ (2 decimals)

* The last data record of each station is followed by a terminator record with characters 1-10 identical to the last data record followed by 998 as characters 11-13, and with all other characters blank. The last data record of the entire file is followed by a terminator record (last record of the file) with charactes 1-10 identical to the last data record, followed by 999 as characters 11-13, and with all other characters blank.

** % carbonate of MESA Formats not determined in this study.

Record 5 - Data record part 2 (if necessary)

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"3"	Fixed-record type (denotes data record)
Characters 11-13	3 numeric	Sequence number of record type*

Characters 14-18	5 alpha	Station number
Characters 19-20	2 numeric	Replicate number
Character 21	"2"	Fixed-part number of data record
Characters 22-25	4 numeric	%$\emptyset_4$ to $\emptyset_5$ (2 decimals)
Characters 26-29	4 numeric	%$\emptyset_5$ to $\emptyset_6$ (2 decimals)
Characters 30-33	4 numeric	%$\emptyset_6$ to $\emptyset_7$ (2 decimals)
Characters 34-37	4 numeric	%$\emptyset_7$ to $\emptyset_8$ (2 decimals)
Characters 38-41	4 numeric	%$\emptyset_8$ to $\emptyset_9$ (2 decimals)
Characters 42-45	4 numeric	%$\emptyset_9$ to $\emptyset_{10}$ (2 decimals)
Characters 46-49	4 numeric	%$\emptyset_{10}$to $\emptyset_{11}$ (2 decimals)
Characters 50-53	4 numeric	%$\emptyset_{11}$to $\emptyset_{12}$ (2 decimals)
Characters 54-57	4 numeric	%$\emptyset_{12}$to $\emptyset_{13}$ (2 decimals)
Characters 58-61	4 numeric	%$\emptyset_{13}$to $\emptyset_{14}$ (2 decimals)
Characters 62-65	4 numeric	%$\emptyset_{14}$to $\emptyset_{15}$ (2 decimals)
Characters 66-69	4 numeric	%$\emptyset_{15}$to $\emptyset_{16}$ (2 decimals)
Characters 70-73	4 numeric	%$\emptyset_{16}$to $\emptyset_{17}$ (2 decimals)
Characters 74-77	4 numeric	%$\emptyset_{17}$to $\emptyset_{18}$ (2 decimals)
Characters 78-81	4 numeric	%$\emptyset_{18}$to $\emptyset_{19}$ (2 decimals)
Characters 82-85	4 numeric	%$\emptyset_{19}$to $\emptyset_{20}$ (2 decimals)
Characters 86-89	4 numeric	%$\emptyset_{20}$to $\emptyset_{21}$ (2 decimals)
Characters 90-93	4 numeric	%$\emptyset_{21}$to $\emptyset_{22}$ (2 decimals)
Characters 94-97	4 numeric	%$\emptyset_{22}$to $\emptyset_{23}$ (2 decimals)
Characters 98-101	4 numeric	%$\emptyset_{23}$to $\emptyset_{24}$ (2 decimals)
Characters 102-105	4 numeric	%$\emptyset_{24}$to $\emptyset_{25}$ (2 decimals)
Characters 106-109	4 numeric	%$\emptyset_{25}$to $\emptyset_{26}$ (2 decimals)

NOTE - in continuation of Ø categories from Ø max to Ø min (e.g. -1Ø to 4Ø) in "Ø increment" renges, each in % of total sediment weight to 2 decimals, if Ø min is reached fill in rest of records with blanks.

* The last data record of each station is followed by a terminator record with characters 1-10 identical to the last record, followed by 998 as characters 11-13, and with all other characters blank. The last data record of the entire file is followed by a terminator record (last record of the file) with characters 1-10 identical to the last data record, followed by 999 as characters 11-13, and with all other characters blank.

Record 6, data record, part 3 if necessary

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year,month, day)
Character 10	"3"	Fixed-record type (denotes data record)
Characters 11-13	3 numeric	Sequence number of record type*
Characters 14-18	5 alpha	Station number
Characters 19-20	2 numeric	Replicate number
Character 21	"3"	Part number of data record
Characters 22-25	4 numeric	%$\emptyset_{26}$ to $\emptyset_{27}$ (2 decimals)
Characters 26-29	4 numeric	%$\emptyset_{27}$ to $\emptyset_{28}$ (2 decimals)
Characters 30-33	4 numeric	%$\emptyset_{28}$ to $\emptyset_{29}$ (2 decimals)
Characters 34-37	4 numeric	%$\emptyset_{29}$ to $\emptyset_{30}$ (2 decimals)
Characters 38-41	4 numeric	%$\emptyset_{30}$ to $\emptyset_{31}$ (2 decimals)
Characters 42-45	4 numeric	%$\emptyset_{31}$ to $\emptyset_{32}$ (2 decimals)
Characters 46-49	4 numeric	%$\emptyset_{32}$ to $\emptyset_{33}$ (2 decimals)
Characters 50-53	4 numeric	%$\emptyset_{33}$ to $\emptyset_{34}$ (2 decimals)
Characters 54-57	4 numeric	%$\emptyset_{34}$ to $\emptyset_{35}$ (2 decimals)
Characters 58-61	4 numeric	%$\emptyset_{35}$ to $\emptyset_{36}$ (2 decimals)
Characters 62-65	4 numeric	%$\emptyset_{36}$ to $\emptyset_{37}$ (2 decimals)
Characters 66-69	4 numeric	%$\emptyset_{37}$ to $\emptyset_{38}$ (2 decimals)
Characters 70-73	4 numeric	%$\emptyset_{38}$ to $\emptyset_{39}$ (2 decimals)

Characters 74-77	4 numeric	$\%\emptyset_{39}$ to $\emptyset_{40}$ (2 decimals)
Characters 78-81	4 numeric	$\%\emptyset_{40}$ to $\emptyset_{41}$ (2 decimals)
Characters 82-85	4 numeric	$\%\emptyset_{41}$ to $\emptyset_{42}$ (2 decimals)
Characters 86-89	4 numeric	$\%\emptyset_{42}$ to $\emptyset_{43}$ (2 decimals)
Characters 90-93	4 numeric	$\%\emptyset_{43}$ to $\emptyset_{44}$ (2 decimals)
Characters 94-97	4 numeric	$\%\emptyset_{44}$ to $\emptyset_{45}$ (2 decimals)
Characters 98-101	4 numeric	$\%\emptyset_{45}$ to $\emptyset_{46}$ (2 decimals)
Characters 102-105	4 numeric	$\%\emptyset_{46}$ to $\emptyset_{47}$ (2 decimals)
Characters 106-109	4 numeric	$\%\emptyset_{47}$ to $\emptyset_{48}$ (2 decimals)

NOTE - In continuation of Ø categories from Ø max to Ø min (e.g. -1Ø to 4Ø) in "Ø increment" ranges, each in % of total sediment weight to 2 decimal places if Ø min is reached fill in rest of record with blanks.

* The last data record of each station is followed by a terminator record with characters 1-10 identical to the last data record, followed by 998 as characters 11-13, and with all other characters blnak. The last data record of the entire file is followed by a termination record (last record of the file) with characters 1-10 identical to the last data record, followed by 999 as characters 11-13, and with all other characters blank.

Record 7, data record, part 4

Characters 1-3	"003"	Fixed-file type
Characters 4-9	6 numeric	Date of file generation (year, month, day)
Character 10	"3"	Fixed-record type
Characters 11-13	3 numeric	Sequence number of record type*
Characters 14-18	5 alpha	Station number
Characters 19-20	2 numeric	Replicate number
Character 21	"4"	Fixed-part number of data record
Characters 22-25	4 numeric	% Nitrogen (2 decimals)
Characters 26-109	Blank	

* The last data record of each station is followed by a terminator record with characters 1-10 identical to the last data record, followed by 998 as characters 11-13, and with all other characters blank. The last data record of the entire file is followed by a terminator record (last record of the file) with characters 1-10 identical to the last data record, followed by 999 as characters 11-13, and with all other characters blank.