MGGB09005024

MS 117-01

MGG09005034

Laboratory Item No. 430

A SUMMARY OF SEDIMENT SIZE, CALCIUM CARBONATE, ORGANIC CARBON AND NITROGEN CONTENT OF TWENTY-FIVE GRABS FROM MAYPORT, FLORIDA. MAY, 1972 (NAVY TUGBOAT 2 AND 8)

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CODE 7310

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The results of the sediment size and composition analyses are printed out in tabular form.

The following is an explanation of the terms encountered on the data printout sheet:

CRUISE	A number assigned to each cruise for identification purposes.
SAMPLE	A consecutive number applied to each core taken successively throughout the cruise.
LATITUDE	Expressed in degrees, minutes, and tenths of minutes.
LONGITUDE	Expressed in degrees, minutes and tenths of minutes.
TAKEN	Date in day, month, and year that core was taken.
CORER TYPE	Letters corresponding to sampling device code below.

Corers		Grabs	
HYP	Hydroplastic piston	SPK	Shipek Sediment Sampler
HYG	Hydroplastic gravity	HLP	Alpine Heavy Duty Grab
KUP	Kullenberg piston	SMS	Small Mud Snapper
KUG	Kullenberg gravity	VVS	Van Veen Grab
PHL	Phlegar gravity	BED	Birge-Ekman Dredge
MEG	Modified Ewing gravity	DLS	Dietz-LaFond Snapper
MEP	Modified Ewing piston	OPG	Orange Peel Grab
VTB	Vibrocorer	SBS	Scoopfish Bottom Sampler
BOM	Boomerang		
EWP	Ewing piston		
EWG	Ewing gravity		

LENGTH	Length of core recorded in centimeters as observed in the laboratory.
PENETRATION	Penetration of coring device recorded in centimeters as observed in the field.
DEPTH	The uncorrected sonic sounding in meters.
ANALYZED	Date in day, month, and year that core was analyzed in the laboratory.
I.D. No.	Three or four digit laboratory project number followed by consecutive number assigned to each subsample analyzed.
INTERVAL	Interval of subsample as measured in centimeters from the top of the core.
MM	Particle diameter size intervals based on Wentworth size grades in millimeters.
PER	Percent of total sample weight within the given size interval.

GRAVEL, SAND SILT, CLAY — Percent of total sample weight within the four size classes.

Class ranges are:

1. Gravel - coarser than 2 mm
2. Sand - 2 to 0.0625 mm
3. Silt - 0.0625 to 0.0039 mm
4. Clay - finer than 0.0039

MEAN (MM) — The geometric mean of the distribution expressed in millimeters.

MEAN (PHI) — The logarithmic mean of the distribution expressed in phi units ($-\log_2$) of the diameter in millimeters.

STAN DEV — Standard deviation. A measure of the degree of spread or dispersion of the distribution about the mean expressed in phi units.

$$s = \sqrt{\sum f \quad (X_i - \bar{X})^2 / 100}$$

SKEWNESS — A measure of the asymmetry of the distribution. Positive values denote skewness of the distribution toward the fine particles; negative values denote skewness toward the coarse particles. A normal distribtuion has a skewness of 0.

$$\text{Skewness} = \frac{1}{100} \cdot 2\, s^{-3} \sum f \quad (X_i - X)^3$$

KURTOSIS — A measure of the peakedness of the distribution. Positive values denote a "leptokurtic" distribution more "peaked" than normal. Negative values denote a "platykurtic" distribution, or a distribution more "flat" than normal. When using the following formula, a normal curve has a kurtosis of 0.

$$\text{Kurtosis} = \frac{1}{100} \quad s^{-4} \left[\sum f \quad (X_i - \bar{X})^4 - 3 \right]$$

$CACO_3$ — Precent of the total sample weight soluble in 3.9N HCL.

ORG CARBON — Percent organic carbon of the total sample weight as determined using a Leco carbon analyzer.

COLOR — Wet sediment color, based on the Geological Society of America Rock-Color Chart, as determined in the laboratory.

NITROGEN — Percent nitrogen of the total sample weight as determined by the Kjeldahl method.

LOG FOR GRAB SAMPLES

Project No: 430
Location:

Logged By E.V. KELLY
Date Logged 25 MAY 72

	La No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: 1-S * Lat: 30° 21.00 N Long: 81° 18.00 W Date: Water depth:	430 1				* THIS LOCATION APPLIES TO ALL SAMPLES.
Sample No: 2-S Lat: Long: Date: Water depth:	430 2				
Sample No: 3-S Lat: Long: Date: Water depth:	430 3				
Sample No: 4-S Lat: Long: Date: Water depth:	430 4				
Sample No: 5-S Lat: Long: Date: Water depth:	430 5				
Sample No: 6-S Lat: Long: Date: Water depth:	430 6				
Sample No: 7-S Lat: Long: Date: Water depth:	430 7				
Sample No: 8-S Lat: Long: Date: Water depth:	430 8				
Sample No: 9-S Lat: Long: Date: Water depth:	430 9				

LOG FOR GRAB SAMPLES

M 0 9 0 0 5 0 3 4

Project No: 430
Location:

Logged By E.V. KELLY
Date Logged 25 MAY 72

	La No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: 2 Lat: Long: Date: Water depth:	430 10				
Sample No: 3 Lat: Long: Date: Water depth:	430 11				
Sample No: 4 Lat: Long: Date: Water depth:	430 12				SAMPLE CONTAINS PAPER FRAGMENTS.
Sample No: 5 Lat: Long: Date: Water depth:	430 13				
Sample No: 6 Lat: Long: Date: Water depth:	430 14				
Sample No: 7 Lat: Long: Date: Water depth:	430 15				
Sample No: 8 Lat: Long: Date: Water depth:	430 16				SAMPLE CONTAINS PAPER FRAGMENTS.
Sample No: 9 Lat: Long: Date: Water depth:	430 17				
Sample No: 10 Lat: Long: Date: Water depth:	430 18				

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LOG FOR GRAB SAMPLES

M 0 9 0 0 5 0 3 4

Project No: 430
Location:

Logged By E.V. KELLY
Date Logged 25 MAY 72

	La No.	Color	Calc. Mat.	Sediment Type	Remarks
Sample No: 11 Lat: Long: Date: Water depth:	430 19				
Sample No: 13 Lat: Long: Date: Water depth:	430 20				SAMPLE CONTAINS PAPER FRAGMENTS.
Sample No: 14 Lat: Long: Date: Water depth:	430 21				
Sample No: 15 Lat: Long: Date: Water depth:	430 22				
Sample No: 16 Lat: Long: Date: Water depth:	430 23				
Sample No: 17 Lat: Long: Date: Water depth:	430 24				
Sample No: 18 Lat: Long: Date: Water depth:	430 25				
Sample No: Lat: Long: Date: Water depth:					
Sample No: Lat: Long: Date: Water depth:					

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 1-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 1

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.399
-1 TO 0	2.000 TO 1.000	.723
0 TO 1	1.000 TO .500	9.652
1 TO 2	.500 TO .250	48.526
2 TO 3	.250 TO .125	34.760
3 TO 4	.125 TO .063	4.553
4 TO 5	.063 TO .031	.156
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	1.231

GRAVEL (>2.0 MM)	.399
SAND (2.0-.063 MM)	98.213
SILT (.063-.004 MM)	.156
CLAY (<.004 MM)	1.231

MEAN (MM)	.2622
MEAN (PHI)	1.931
STANDARD DEVIATION	1.232
SKEWNESS	1.988
KURTOSIS	26.561

CALCIUM CARBONATE	5.000
ORGANIC CARBON	.056
NITROGEN (KJELDAHL)	.009

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 2-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 2

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.464
-3 TO -2	8.000 TO 4.000	.558
-2 TO -1	4.000 TO 2.000	1.021
-1 TO 0	2.000 TO 1.000	2.371
0 TO 1	1.000 TO .500	13.705
1 TO 2	.500 TO .250	49.446
2 TO 3	.250 TO .125	29.963
3 TO 4	.125 TO .063	1.495
4 TO 5	.063 TO .031	.096
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.881

GRAVEL (>2.0 MM)	2.042
SAND (2.0-.063 MM)	96.980
SILT (.063-.004 MM)	.096
CLAY (<.004 MM)	.881

MEAN (MM)	.3184
MEAN (PHI)	1.651
STANDARD DEVIATION	1.260
SKEWNESS	1.151
KURTOSIS	21.230

CALCIUM CARBONATE	4.000
ORGANIC CARBON	.058
NITROGEN (KJELDAHL)	.007

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 3-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 3

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.408
-1 TO 0	2.000 TO 1.000	1.004
0 TO 1	1.000 TO .500	11.087
1 TO 2	.500 TO .250	58.696
2 TO 3	.250 TO .125	26.361
3 TO 4	.125 TO .063	1.421
4 TO 5	.063 TO .031	.122
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.902

GRAVEL (>2.0 MM)	.408
SAND (2.0-.063 MM)	98.568
SILT (.063-.004 MM)	.122
CLAY (<.004 MM)	.902

MEAN (MM)	.3007
MEAN (PHI)	1.734
STANDARD DEVIATION	1.093
SKEWNESS	2.232
KURTOSIS	35.174

CALCIUM CARBONATE	3.000
ORGANIC CARBON	.050
NITROGEN (KJELDAHL)	.008

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 4-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 4

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.334
-2 TO -1	4.000 TO 2.000	1.008
-1 TO 0	2.000 TO 1.000	1.525
0 TO 1	1.000 TO .500	15.094
1 TO 2	.500 TO .250	60.754
2 TO 3	.250 TO .125	19.213
3 TO 4	.125 TO .063	1.069
4 TO 5	.063 TO .031	.085
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.918

GRAVEL (>2.0 MM)	1.342
SAND (2.0-.063 MM)	97.655
SILT (.063-.004 MM)	.085
CLAY (<.004 MM)	.918

MEAN (MM)	.3360
MEAN (PHI)	1.574
STANDARD DEVIATION	1.156
SKEWNESS	1.921
KURTOSIS	31.098

CALCIUM CARBONATE	5.000
ORGANIC CARBON	.060
NITROGEN (KJELDAHL)	.008

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE		TAKEN	LATITUDE 30 21.00 N	MARSDEN SQUARE 117-01	LENGTH		ANALYZED 9JUN72
SAMPLE	S-S	DEPTH	LONGITUDE 81 18.00 W	CORER TYPE EK	PENETRATION		

SUBSAMPLE ID. 430 5

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	1.113
-2 TO -1	4.000 TO 2.000	.721
-1 TO 0	2.000 TO 1.000	1.423
0 TO 1	1.000 TO .500	17.930
1 TO 2	.500 TO .250	54.870
2 TO 3	.250 TO .125	21.257
3 TO 4	.125 TO .063	1.599
4 TO 5	.063 TO .031	.118
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.970

GRAVEL (>2.0 MM)	1.834
SAND (2.0-.063 MM)	97.078
SILT (.063-.004 MM)	.118
CLAY (<.004 MM)	.970

MEAN (MM)	.3388
MEAN (PHI)	1.561
STANDARD DEVIATION	1.244
SKEWNESS	1.546
KURTOSIS	24.762

CALCIUM CARBONATE	7.000
ORGANIC CARBON	.056
NITROGEN (KJELDAHL)	.008

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE		TAKEN	LATITUDE 30 21.00 N	MARSDEN SQUARE 117-0	LENGTH		ANALYZED 9JUN72
SAMPLE	6-S	DEPTH	LONGITUDE 81 18.00 W	CORER TYPE EK	PENETRATION		

SUBSAMPLE ID. 430 6

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.319
-2 TO -1	4.000 TO 2.000	.625
-1 TO 0	2.000 TO 1.000	1.864
0 TO 1	1.000 TO .500	18.066
1 TO 2	.500 TO .250	52.714
2 TO 3	.250 TO .125	23.744
3 TO 4	.125 TO .063	1.619
4 TO 5	.063 TO .031	.110
5 TO 6	.031 TO .016	.012
6 TO 7	.016 TO .008	.012
7 TO 8	.008 TO .004	.012
8 TO 9	.004 TO .002	.012
9 TO 10	.002 TO .001	.000
>10	<.001	.889

GRAVEL (>2.0 MM)	.944
SAND (2.0-.063 MM)	98.007
SILT (.063-.004 MM)	.147
CLAY (<.004 MM)	.901
MEAN (MM)	.3284
MEAN (PHI)	1.606
STANDARD DEVIATION	1.183
SKEWNESS	1.759
KURTOSIS	26.998
CALCIUM CARBONATE	5.000
ORGANIC CARBON	.058
NITROGEN (KJELDAHL)	.008

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SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-D LENGTH ANALYZED 9JUN72
SAMPLE 7-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 7

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.345
-3 TO -2	8.000 TO 4.000	1.404
-2 TO -1	4.000 TO 2.000	3.928
-1 TO 0	2.000 TO 1.000	11.371
0 TO 1	1.000 TO .500	37.725
1 TO 2	.500 TO .250	34.156
2 TO 3	.250 TO .125	9.450
3 TO 4	.125 TO .063	.771
4 TO 5	.063 TO .031	.084
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.765

GRAVEL (>2.0 MM)	5.677
SAND (2.0-.063 MM)	93.473
SILT (.063-.004 MM)	.084
CLAY (<.004 MM)	.765

MEAN (MM)	.5413
MEAN (PHI)	.885
STANDARD DEVIATION	1.368
SKEWNESS	1.126
KURTOSIS	17.386

CALCIUM CARBONATE	7.000
ORGANIC CARBON	.126
NITROGEN (KJELDAHL)	.0097

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE		TAKEN	LATITUDE 30 21.00 N	MARSDEN SQUARE 117-01	LENGTH		ANALYZED 9JUN72
SAMPLE	8-5	DEPTH	LONGITUDE 81 18.00 W	CORER TYPE EK	PENETRATION		

SUBSAMPLE ID. 430 8

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.078
-2 TO -1	4.000 TO 2.000	.331
-1 TO 0	2.000 TO 1.000	.604
0 TO 1	1.000 TO .500	4.172
1 TO 2	.500 TO .250	10.177
2 TO 3	.250 TO .125	39.325
3 TO 4	.125 TO .063	31.800
4 TO 5	.063 TO .031	1.911
5 TO 6	.031 TO .016	.780
6 TO 7	.016 TO .008	.877
7 TO 8	.008 TO .004	.292
8 TO 9	.004 TO .002	.682
9 TO 10	.002 TO .001	1.267
>10	<.001	7.701

GRAVEL (>2.0 MM)	.409
SAND (2.0-.063 MM)	86.079
SILT (.063-.004 MM)	3.860
CLAY (<.004 MM)	9.651
MEAN (MM)	.0912
MEAN (PHI)	3.455
STANDARD DEVIATION	2.441
SKEWNESS	.963
KURTOSIS	3.261
CALCIUM CARBONATE	11.000
ORGANIC CARBON	.306
NITROGEN (KJELDAHL)	.049

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 9-S DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 9

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.621
-3 TO -2	8.000 TO 4.000	1.501
-2 TO -1	4.000 TO 2.000	1.184
-1 TO 0	2.000 TO 1.000	2.526
0 TO 1	1.000 TO .500	7.319
1 TO 2	.500 TO .250	36.941
2 TO 3	.250 TO .125	46.368
3 TO 4	.125 TO .063	2.137
4 TO 5	.063 TO .031	.212
5 TO 6	.031 TO .016	.072
6 TO 7	.016 TO .008	.029
7 TO 8	.008 TO .004	.014
8 TO 9	.004 TO .002	.014
9 TO 10	.002 TO .001	.014
>10	<.001	1.047

GRAVEL (>2.0 MM)	3.306
SAND (2.0-.063 MM)	95.291
SILT (.063-.004 MM)	.328
CLAY (<.004 MM)	1.075

MEAN (MM)	.2747
MEAN (PHI)	1.864
STANDARD DEVIATION	1.414
SKEWNESS	.706
KURTOSIS	15.219

CALCIUM CARBONATE	8.000
ORGANIC CARBON	.056
NITROGEN (KJELDAHL)	.008

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 2 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 10

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.408
-2 TO -1	4.000 TO 2.000	.878
-1 TO 0	2.000 TO 1.000	3.029
0 TO 1	1.000 TO .500	21.697
1 TO 2	.500 TO .250	49.476
2 TO 3	.250 TO .125	22.488
3 TO 4	.125 TO .063	1.038
4 TO 5	.063 TO .031	.152
5 TO 6	.031 TO .016	.012
6 TO 7	.016 TO .008	.012
7 TO 8	.008 TO .004	.012
8 TO 9	.004 TO .002	.012
9 TO 10	.002 TO .001	.012
>10	<.001	.773

GRAVEL (>2.0 MM)	1.286
SAND (2.0-.063 MM)	97.728
SILT (.063-.004 MM)	.189
CLAY (<.004 MM)	.797
MEAN (MM)	.3528
MEAN (PHI)	1.503
STANDARD DEVIATION	1.188
SKEWNESS	1.540
KURTOSIS	24.427
CALCIUM CARBONATE	13.000
ORGANIC CARBON	.058
NITROGEN (KJELDAHL)	.008

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 3 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 11

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	1.279
-2 TO -1	4.000 TO 2.000	1.837
-1 TO 0	2.000 TO 1.000	3.910
0 TO 1	1.000 TO .500	22.490
1 TO 2	.500 TO .250	42.893
2 TO 3	.250 TO .125	24.863
3 TO 4	.125 TO .063	1.367
4 TO 5	.063 TO .031	.032
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	1.329

GRAVEL (>2.0 MM)	3.116
SAND (2.0-.063 MM)	95.523
SILT (.063-.004 MM)	.032
CLAY (<.004 MM)	1.329

MEAN (MM)	.3567
MEAN (PHI)	1.487
STANDARD DEVIATION	1.461
SKEWNESS	1.329
KURTOSIS	17.585

CALCIUM CARBONATE	13.000
ORGANIC CARBON	.060
NITROGEN (KJELDAHL)	.007

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 4 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 12

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.321
-3 TO -2	8.000 TO 4.000	1.162
-2 TO -1	4.000 TO 2.000	1.195
-1 TO 0	2.000 TO 1.000	1.981
0 TO 1	1.000 TO .500	11.352
1 TO 2	.500 TO .250	42.101
2 TO 3	.250 TO .125	39.437
3 TO 4	.125 TO .063	1.539
4 TO 5	.063 TO .031	.174
5 TO 6	.031 TO .016	.067
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.669

GRAVEL (>2.0 MM)	2.679
SAND (2.0-.063 MM)	96.411
SILT (.063-.004 MM)	.241
CLAY (<.004 MM)	.669

MEAN (MM)	.2990
MEAN (PHI)	1.742
STANDARD DEVIATION	1.238
SKEWNESS	.691
KURTOSIS	17.509

CALCIUM CARBONATE	13.000
ORGANIC CARBON	.060
NITROGEN (KJELDAHL)	.007

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 5 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 13

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.051
-2 TO -1	4.000 TO 2.000	.444
-1 TO 0	2.000 TO 1.000	1.382
0 TO 1	1.000 TO .500	6.335
1 TO 2	.500 TO .250	41.312
2 TO 3	.250 TO .125	47.737
3 TO 4	.125 TO .063	1.805
4 TO 5	.063 TO .031	.102
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	.832

GRAVEL (>2.0 MM)	.495
SAND (2.0-.063 MM)	98.570
SILT (.063-.004 MM)	.102
CLAY (<.004 MM)	.832

MEAN (MM)	.2526
MEAN (PHI)	1.985
STANDARD DEVIATION	1.079
SKEWNESS	1.823
KURTOSIS	30.664

CALCIUM CARBONATE	7.000
ORGANIC CARBON	.046
NITROGEN (KJELDAHL)	.007

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 6 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 14

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.063
-2 TO -1	4.000 TO 2.000	.315
-1 TO 0	2.000 TO 1.000	10.992
0 TO 1	1.000 TO .500	3.356
1 TO 2	.500 TO .250	11.831
2 TO 3	.250 TO .125	48.962
3 TO 4	.125 TO .063	19.782
4 TO 5	.063 TO .031	1.322
5 TO 6	.031 TO .016	.524
6 TO 7	.016 TO .008	.315
7 TO 8	.008 TO .004	.210
8 TO 9	.004 TO .002	.105
9 TO 10	.002 TO .001	.524
>10	<.001	1.699

GRAVEL (>2.0 MM)	.378
SAND (2.0-.063 MM)	94.923
SILT (.063-.004 MM)	2.370
CLAY (<.004 MM)	2.329
MEAN (MM)	.1880
MEAN (PHI)	2.411
STANDARD DEVIATION	1.756
SKEWNESS	.815
KURTOSIS	7.548
CALCIUM CARBONATE	11.000
ORGANIC CARBON	.232
NITROGEN (KJELDAHL)	.036

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE		TAKEN	LATITUDE 30 21.00 N	MARSDEN SQUARE 117-01	LENGTH	ANALYZED 9JUN72
SAMPLE	7	DEPTH	LONGITUDE 81 18.00 W	CORER TYPE EK	PENETRATION	

SUBSAMPLE ID. 430 15

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.855
-2 TO -1	4.000 TO 2.000	.904
-1 TO 0	2.000 TO 1.000	2.127
0 TO 1	1.000 TO .500	11.499
1 TO 2	.500 TO .250	42.043
2 TO 3	.250 TO .125	37.646
3 TO 4	.125 TO .063	3.532
4 TO 5	.063 TO .031	.395
5 TO 6	.031 TO .016	.062
6 TO 7	.016 TO .008	.062
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.062
9 TO 10	.002 TO .001	.000
>10	<.001	.803

GRAVEL (>2.0 MM)	1.759
SAND (2.0-.063 MM)	96.858
SILT (.063-.004 MM)	.519
CLAY (<.004 MM)	.865

MEAN (MM)	.2828
MEAN (PHI)	1.822
STANDARD DEVIATION	1.255
SKEWNESS	1.093
KURTOSIS	18.306

CALCIUM CARBONATE	6.000
ORGANIC CARBON	.058
NITROGEN (KJELDAHL)	.026

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 8 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 16

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	1.170
-2 TO -1	4.000 TO 2.000	2.217
-1 TO 0	2.000 TO 1.000	3.443
0 TO 1	1.000 TO .500	11.429
1 TO 2	.500 TO .250	46.654
2 TO 3	.250 TO .125	32.567
3 TO 4	.125 TO .063	1.446
4 TO 5	.063 TO .031	.179
5 TO 6	.031 TO .016	.069
6 TO 7	.016 TO .008	.028
7 TO 8	.008 TO .004	.014
8 TO 9	.004 TO .002	.014
9 TO 10	.002 TO .001	.014
>10	<.001	.757

GRAVEL (>2.0 MM)	3.387
SAND (2.0-.063 MM)	95.538
SILT (.063-.004 MM)	.289
CLAY (<.004 MM)	.785

MEAN (MM)	.3212
MEAN (PHI)	1.639
STANDARD DEVIATION	1.293
SKEWNESS	.880
KURTOSIS	16.685

CALCIUM CARBONATE	8.000
ORGANIC CARBON	.058
NITROGEN (KJELDAHL)	.007

M 09005034

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 9 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 17

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.214
-2 TO -1	4.000 TO 2.000	.177
-1 TO 0	2.000 TO 1.000	.534
0 TO 1	1.000 TO .500	9.189
1 TO 2	.500 TO .250	56.074
2 TO 3	.250 TO .125	31.200
3 TO 4	.125 TO .063	1.188
4 TO 5	.063 TO .031	.141
5 TO 6	.031 TO .016	.107
6 TO 7	.016 TO .008	.043
7 TO 8	.008 TO .004	.021
8 TO 9	.004 TO .002	.021
9 TO 10	.002 TO .001	.021
>10	<.001	1.068

GRAVEL (>2.0 MM)	.391
SAND (2.0-.063 MM)	98.186
SILT (.063-.004 MM)	.312
CLAY (<.004 MM)	1.111

MEAN (MM)	.2811
MEAN (PHI)	1.831
STANDARD DEVIATION	1.163
SKEWNESS	2.193
KURTOSIS	31.925

CALCIUM CARBONATE	4.000
ORGANIC CARBON	.066
NITROGEN (KJELDAHL)	.007

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE		TAKEN	LATITUDE 30 21.00 N	MARSDEN SQUARE 117-01	LENGTH		ANALYZED 9JUN72
SAMPLE	10	DEPTH	LONGITUDE 81 18.00 W	CORER TYPE EK	PENETRATION		

SUBSAMPLE ID. 430 18

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	5.680
-3 TO -2	8.000 TO 4.000	.645
-2 TO -1	4.000 TO 2.000	1.335
-1 TO 0	2.000 TO 1.000	1.702
0 TO 1	1.000 TO .500	8.620
1 TO 2	.500 TO .250	20.355
2 TO 3	.250 TO .125	8.023
3 TO 4	.125 TO .063	2.542
4 TO 5	.063 TO .031	1.702
5 TO 6	.031 TO .016	1.547
6 TO 7	.016 TO .008	4.310
7 TO 8	.008 TO .004	3.426
8 TO 9	.004 TO .002	4.089
9 TO 10	.002 TO .001	13.592
>10	<.001	22.433

GRAVEL (>2.0 MM)	7.660
SAND (2.0-.063 MM)	41.241
SILT (.063-.004 MM)	10.984
CLAY (<.004 MM)	40.114

MEAN (MM)	.0294
MEAN (PHI)	5.087
STANDARD DEVIATION	4.549
SKEWNESS	-.081
KURTOSIS	-1.369

CALCIUM CARBONATE	6.000
ORGANIC CARBON	.540
NITROGEN (KJELDAHL)	.063

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 11 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 19

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.917
-2 TO -1	4.000 TO 2.000	1.361
-1 TO 0	2.000 TO 1.000	2.351
0 TO 1	1.000 TO .500	17.886
1 TO 2	.500 TO .250	36.928
2 TO 3	.250 TO .125	34.989
3 TO 4	.125 TO .063	4.331
4 TO 5	.063 TO .031	.069
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	1.169

GRAVEL (>2.0 MM)	2.278
SAND (2.0-.063 MM)	96.485
SILT (.063-.004 MM)	.069
CLAY (<.004 MM)	1.169

MEAN (MM)	.2993
MEAN (PHI)	1.740
STANDARD DEVIATION	1.400
SKEWNESS	1.182
KURTOSIS	16.482

CALCIUM CARBONATE	7.000
ORGANIC CARBON	.060
NITROGEN (KJELDAHL)	.009

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 13 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 20

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.084
-2 TO -1	4.000 TO 2.000	.478
-1 TO 0	2.000 TO 1.000	.893
0 TO 1	1.000 TO .500	2.267
1 TO 2	.500 TO .250	5.731
2 TO 3	.250 TO .125	33.937
3 TO 4	.125 TO .063	49.867
4 TO 5	.063 TO .031	1.686
5 TO 6	.031 TO .016	.140
6 TO 7	.016 TO .008	.140
7 TO 8	.008 TO .004	.281
8 TO 9	.004 TO .002	.140
9 TO 10	.002 TO .001	.281
>10	<.001	4.074

GRAVEL (>2.0 MM)	.562
SAND (2.0-.063 MM)	92.696
SILT (.063-.004 MM)	2.248
CLAY (<.004 MM)	4.495
MEAN (MM)	.1046
MEAN (PHI)	3.257
STANDARD DEVIATION	1.794
SKEWNESS	1.264
KURTOSIS	9.129
CALCIUM CARBONATE	11.000
ORGANIC CARBON	.242
NITROGEN (KJELDAHL)	.029

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE
SAMPLE 14

TAKEN
DEPTH

LATITUDE 30 21.00 N
LONGITUDE 81 18.00 W

MARSDEN SQUARE 117-01
CORER TYPE EK

LENGTH
PENETRATION

ANALYZED 9JUN72

SUBSAMPLE ID. 430 21

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.054
-2 TO -1	4.000 TO 2.000	.432
-1 TO 0	2.000 TO 1.000	.715
0 TO 1	1.000 TO .500	2.725
1 TO 2	.500 TO .250	22.164
2 TO 3	.250 TO .125	60.947
3 TO 4	.125 TO .063	10.940
4 TO 5	.063 TO .031	.472
5 TO 6	.031 TO .016	.108
6 TO 7	.016 TO .008	.067
7 TO 8	.008 TO .004	.054
8 TO 9	.004 TO .002	.040
9 TO 10	.002 TO .001	.135
>10	<.001	1.147

GRAVEL (>2.0 MM)	.486
SAND (2.0-.063 MM)	97.491
SILT (.063-.004 MM)	.701
CLAY (<.004 MM)	1.322

MEAN (MM)	.1877
MEAN (PHI)	2.414
STANDARD DEVIATION	1.203
SKEWNESS	1.755
KURTOSIS	23.865

CALCIUM CARBONATE	5.000
ORGANIC CARBON	.072
NITROGEN (KJELDAHL)	.012

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 17-01 LENGTH ANALYZED 9JUN72
SAMPLE 15 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 22

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.102
-2 TO -1	4.000 TO 2.000	.434
-1 TO 0	2.000 TO 1.000	.990
0 TO 1	1.000 TO .500	5.058
1 TO 2	.500 TO .250	45.237
2 TO 3	.250 TO .125	44.017
3 TO 4	.125 TO .063	2.929
4 TO 5	.063 TO .031	.149
5 TO 6	.031 TO .016	.000
6 TO 7	.016 TO .008	.000
7 TO 8	.008 TO .004	.000
8 TO 9	.004 TO .002	.000
9 TO 10	.002 TO .001	.000
>10	<.001	1.085

GRAVEL (>2.0 MM)	.536
SAND (2.0-.063 MM)	98.230
SILT (.063-.004 MM)	.149
CLAY (<.004 MM)	1.085

MEAN (MM)	.2477
MEAN (PHI)	2.013
STANDARD DEVIATION	1.154
SKEWNESS	1.994
KURTOSIS	29.874

CALCIUM CARBONATE	5.000
ORGANIC CARBON	.072
NITROGEN (KJELDAHL)	.014

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 16 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 23

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.173
-1 TO 0	2.000 TO 1.000	.022
0 TO 1	1.000 TO .500	.059
1 TO 2	.500 TO .250	.173
2 TO 3	.250 TO .125	.871
3 TO 4	.125 TO .063	5.624
4 TO 5	.063 TO .031	.993
5 TO 6	.031 TO .016	2.389
6 TO 7	.016 TO .008	9.558
7 TO 8	.008 TO .004	17.278
8 TO 9	.004 TO .002	13.418
9 TO 10	.002 TO .001	7.720
>10	<.001	41.723

GRAVEL (>2.0 MM)	.173
SAND (2.0-.063 MM)	6.749
SILT (.063-.004 MM)	30.217
CLAY (<.004 MM)	62.861

MEAN (MM)	.0026
MEAN (PHI)	8.567
STANDARD DEVIATION	2.169
SKEWNESS	-.561
KURTOSIS	.959

CALCIUM CARBONATE	26.000
ORGANIC CARBON	3.072
NITROGEN (KJELDAHL)	.385

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-01 LENGTH ANALYZED 9JUN72
SAMPLE 17 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 24

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.000
-1 TO 0	2.000 TO 1.000	.046
0 TO 1	1.000 TO .500	.229
1 TO 2	.500 TO .250	.955
2 TO 3	.250 TO .125	6.471
3 TO 4	.125 TO .063	33.780
4 TO 5	.063 TO .031	7.343
5 TO 6	.031 TO .016	2.983
6 TO 7	.016 TO .008	3.901
7 TO 8	.008 TO .004	2.983
8 TO 9	.004 TO .002	4.131
9 TO 10	.002 TO .001	3.672
>10	<.001	33.505

GRAVEL (>2.0 MM)	.000
SAND (2.0-.063 MM)	41.482
SILT (.063-.004 MM)	17.211
CLAY (<.004 MM)	41.307
MEAN (MM)	.0107
MEAN (PHI)	6.549
STANDARD DEVIATION	3.260
SKEWNESS	.079
KURTOSIS	-1.730
CALCIUM CARBONATE	19.000
ORGANIC CARBON	1.986
NITROGEN (KJELDAHL)	.224

SEDIMENT SIZE AND COMPOSITION DATA

CRUISE TAKEN LATITUDE 30 21.00 N MARSDEN SQUARE 117-0 LENGTH ANALYZED 9JUN72
SAMPLE 18 DEPTH LONGITUDE 81 18.00 W CORER TYPE EK PENETRATION

SUBSAMPLE ID. 430 25

DIAM (PHI)	DIAM (MM)	PERCENT
<-4	>16.000	.000
-4 TO -3	16.000 TO 8.000	.000
-3 TO -2	8.000 TO 4.000	.000
-2 TO -1	4.000 TO 2.000	.150
-1 TO 0	2.000 TO 1.000	.275
0 TO 1	1.000 TO .500	.635
1 TO 2	.500 TO .250	1.050
2 TO 3	.250 TO .125	4.116
3 TO 4	.125 TO .063	21.705
4 TO 5	.063 TO .031	4.801
5 TO 6	.031 TO .016	4.251
6 TO 7	.016 TO .008	5.751
7 TO 8	.008 TO .004	4.751
8 TO 9	.004 TO .002	5.001
9 TO 10	.002 TO .001	4.501
>10	<.001	43.011

GRAVEL (>2.0 MM)	.150
SAND (2.0-.063 MM)	27.782
SILT (.063-.004 MM)	19.555
CLAY (<.004 MM)	52.513

MEAN (MM)	.0058
MEAN (PHI)	7.427
STANDARD DEVIATION	3.201
SKEWNESS	-.204
KURTOSIS	-1.406

CALCIUM CARBONATE	24.000
ORGANIC CARBON	2.738
NITROGEN (KJELDAHL)	.325