PNEUMATIC HAMMER CORE **CORE # G-51**

PROJECT: Galveston Island Beach Replenishment

STATE PLANNING COORDINATES
3343088.92
550489.94

LAT./LONG. COORDINATES
29°16.849° N
094°47.149° W

WATER DEPTH
18'4"

DATE
5/17/94

START TIME
1424

END TIME
1425

CORE DIAMETER
3"

LENGTH OF BARREL
20 '

PENETRATION DEPTH
14'8"

LENGTH RECOVERED
13'7"

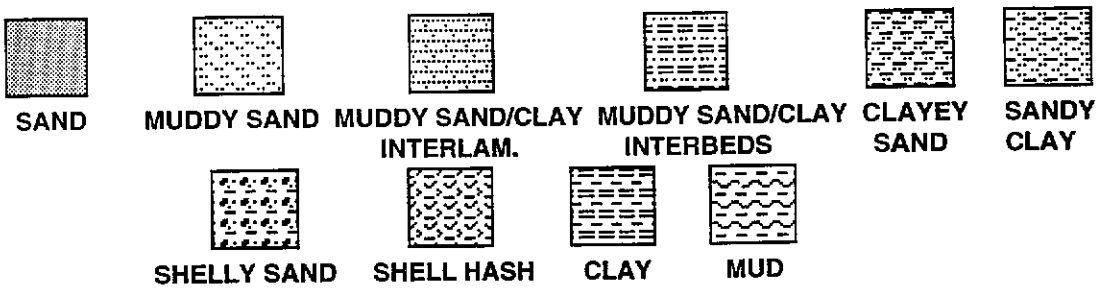
SUPPORT VESSEL:
R/V Lonestar

POSITIONING:
Trimble Differential GPS

ANALYSIS BY:
M. Hamilton
Rice University

ANALYSIS METHODS:
Visual Logging
Auto. Settling Tube

DEPTH CM.	DEPTH IN.	*contact*	LITHOLOGY	DESCRIPTION	GRAIN SIZE (PHI) MEAN	%SAND	%MUD
				Slighlty muddy sand; abundant small shell frags 5Y6/1	3.10	93.20	4.98
32	12	*11*		Clay; sand-filled burows 5Y4/1	3.05	54.71	45.29
		20					
64	24			Fine sand; textural lams at top; discrete clay lams t/o; sands get cleaner downcore 5Y5/1-5Y6/1	3.23	86.40	13.00
96	36						
128	48	*48*		Interlaminated clay, sandy clay and clayey sand S:C 30:70			
	60	*60*					
160		*64*		Clayey sand 5Y5/2			
	72	*72*		Clay 5Y4/1			
192		*76*					
224	84			Laminated, very fine sands; locally very muddy; moderate bioturbation	3.01	85.31	14.69
	96						
256							
	108						
288		*113*		Interlaminated clayey sand, sand and clay S:C=50:50			
	120						
320							
	132						
352		*143*		Clay 5Y4/1			
	144						
384				Mud 10YR6/2			
	156						
416		*160*		Texturally laminated very fine sands 5Y5/1			
	168						
448	180						
480	192						



File	c	tg6051.dat	Date	06-29-1994	
Sample name	g-51-6"				
Data collected on	06-28-1994				
Total settling time (min)	8.066667				
Settling distance (cm)	140				
Water temperature (degrees C)	21				

	CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %		
PHI	TIME(SEC)	% VALUE	RANGE		% VALUE
-0.9987372	5.159447	10.4			
-0.8747199	5.517604	10.4	-1	-0.875	0
-0.7490318	5.914483	10.4	-0.875	-0.75	0
-0.6245047	6.345241	10.4	-0.75	-0.625	0
-0.4995278	6.819561	10.4	-0.625	-0.5	0
-0.3742583	7.342282	10.4	-0.5	-0.375	0
-0.2499682	7.913404	10.4	-0.375	-0.25	0
-0.1248957	8.547447	10.4	-0.25	-0.125	0
3.00E-04	9.249241	10.4	-0.125	0	0
0.125003	10.02365	10.4	0	0.125	0
0.2506482	10.89001	10.4	0.125	0.25	0
0.3755397	11.84833	10.4	0.25	0.375	0
0.5000237	12.91313	10.4	0.375	0.5	0
0.625097	14.1086	10.4	0.5	0.625	0
0.7502809	15.44929	10.4	0.625	0.75	0
0.8750191	16.94968	10.4	0.75	0.875	0
1.000091	18.64364	10.4	0.875	1	0
1.125097	20.55544	10.4	1	1.125	0
1.250028	22.71888	10.4	1.125	1.25	0
1.375058	25.17768	10.4	1.25	1.375	0
1.500153	27.97997	10.4	1.375	1.5	0
1.625151	31.17932	10.4	1.5	1.625	0
1.750058	34.84326	10.4	1.625	1.75	0
1.875066	39.05887	10.4	1.75	1.875	0
2.00001	43.91824	10.4	1.875	2	0
2.125005	49.54228	10.4	2	2.125	0
2.250048	56.07149	10.4	2.125	2.25	0
2.375071	63.67005	10.4	2.25	2.375	0
2.500061	72.53685	10.4	2.375	2.5	0
2.625054	82.91398	10.4	2.5	2.625	0
2.750031	95.08652	11.1	2.625	2.75	0.7000008
2.875004	109.3985	20	2.75	2.875	8.9
3.000021	126.2663	38	2.875	3	18
3.125024	146.1729	57.8	3	3.125	19.8
3.250015	169.7004	76.4	3.125	3.25	18.6
3.37502	197.5495	80	3.25	3.375	3.599998
3.500002	230.539	80	3.375	3.5	0
3.625007	269.6655	86.7	3.5	3.625	6.699997
3.750002	316.0908	88.9	3.625	3.75	2.200005
3.875004	371.2139	88.9	3.75	3.875	0
4.000007	436.6891	88.9	3.875	4	0

SEDIDAT STATISTICS

GROUPED MOMENT MEASURES (McBride, 1971)

	.125 CHI	.125 PHI
Mean	6.68991	3.103424
Standard deviation	0.4146016	0.2215894
Skewness	1.659515	0.9099905
Kurtosis	5.662097	3.490431

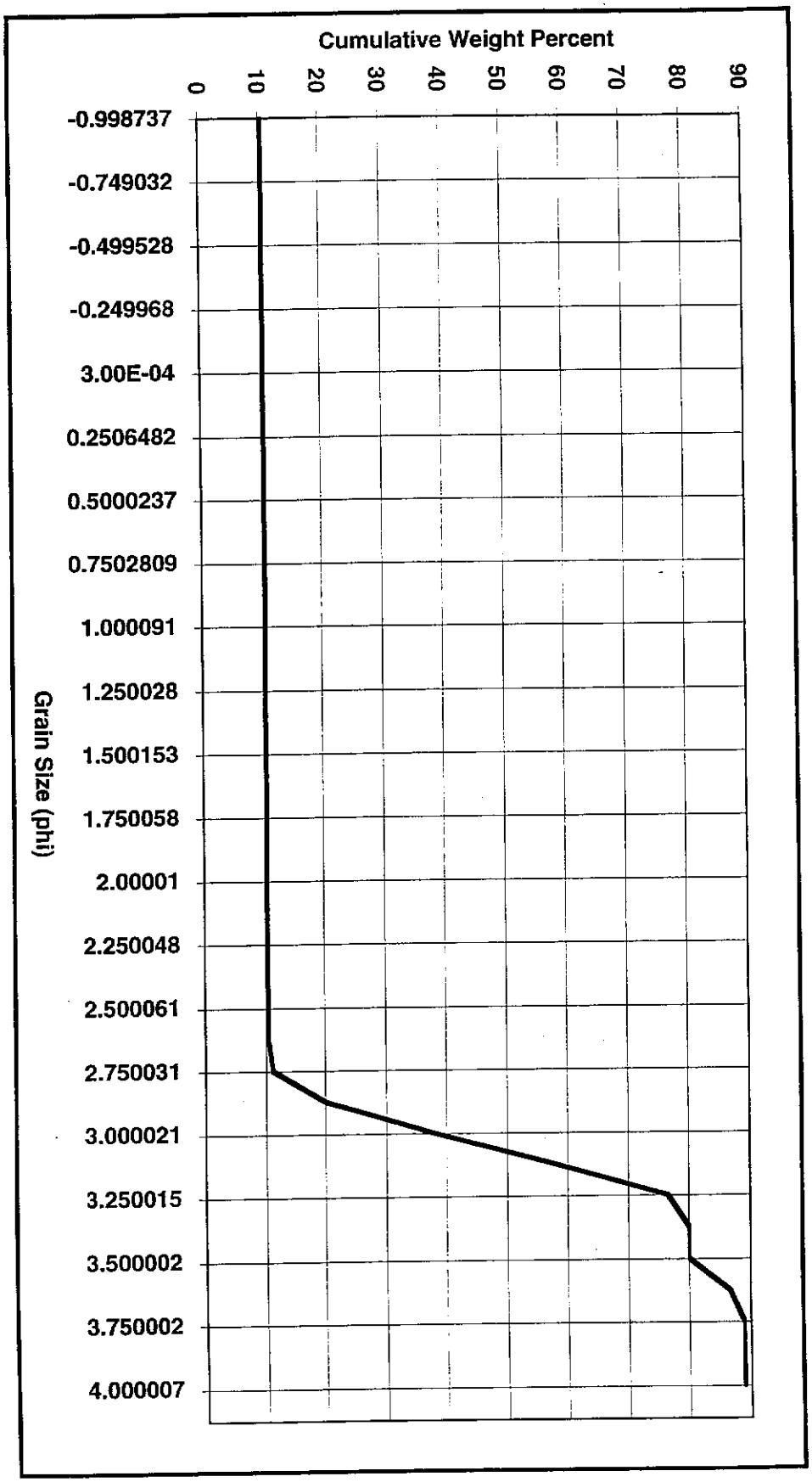
GRAPHIC MEASURES (Folk and Ward, 1957)

	.125 CHI	.125 PHI
Mean	6.725447	3.131349
Standard deviation	1.946416	2.160844
Skewness	-0.1325855	-0.2733989
Kurtosis	9.106431	18.3305

MODES

Number	Velocity	CHI	PHI	Freq. %
1	1.121148	6.478879	2.990434	3.333346
2	1.285583	6.281433	2.870977	3.333324
3	0.5030543	7.63507	3.649934	2.222233
4	0.6051385	7.368519	3.502829	2.222233
5	0.6471056	7.271783	3.44882	2.222233

PARAMETERS USED				
Number of data points	1000			
Gibbs eq. constants	0.055804	0.003114	4.5	8.71E-03
Dynamic viscosity (poises)	0.01			
Acceleration of gravity (cm/s)	979.21			
Fluid density (g/ml)	0.998			
Particle density (g/cm3)	2.65			
Size conversion using Komar FORAM correction, RD	0.9859			


Cumulative Weight Percent
90
80
70
60
50
40
30
20
10
0
Grain Size (phi)
-0.998737
-0.749032
-0.499528
-0.249968
3.00E-04
0.2506482
0.5000237
0.7502809
1.000091
1.250028
1.500153
1.750058
2.00001
2.250048
2.500061
2.750031
3.000021
3.250015
3.500002
3.750002
4.000007

G6051

File	c	tg1451.dat	Date	06-29-1994	
Sample name	g-51-1'4"				
Data collected on	06-28-1994				
Total settling time (min)	8.066667				
Settling distance (cm)	140				
Water temperature (degrees C)	21				

	CUMULATIVE WEIGHT %				INDIVIDUAL WEIGHT %
PHI	TIME(SEC)	% VALUE	RANGE		% VALUE
-0.9987372	5.159447	4.8			
-0.8747199	5.517604	6.5	-1	-0.875	1.7
-0.7490318	5.914483	7.5	-0.875	-0.75	1
-0.6245047	6.345241	7.8	-0.75	-0.625	0.3000002
-0.4995278	6.819561	9	-0.625	-0.5	1.2
-0.3742583	7.342282	9	-0.5	-0.375	0
-0.2499682	7.913404	9	-0.375	-0.25	0
-0.1248957	8.547447	9	-0.25	-0.125	0
3.00E-04	9.249241	9	-0.125	0	0
0.125003	10.02365	9	0	0.125	0
0.2506482	10.89001	9	0.125	0.25	0
0.3755397	11.84833	9	0.25	0.375	0
0.5000237	12.91313	9	0.375	0.5	0
0.625097	14.1066	9	0.5	0.625	0
0.7502809	15.44929	9	0.625	0.75	0
0.8750191	16.94968	9	0.75	0.875	0
1.000091	18.64364	9	0.875	1	0
1.125097	20.55544	9	1	1.125	0
1.250028	22.71888	9	1.125	1.25	0
1.375058	25.17768	9	1.25	1.375	0
1.500153	27.97997	9	1.375	1.5	0
1.625151	31.17932	9	1.5	1.625	0
1.750058	34.84326	9	1.625	1.75	0
1.875066	39.05887	9	1.75	1.875	0
2.00001	43.91824	9	1.875	2	0
2.125005	49.54228	9	2	2.125	0
2.250048	56.07149	9	2.125	2.25	0
2.375071	63.67005	9	2.25	2.375	0
2.500061	72.53685	9	2.375	2.5	0
2.625054	82.91396	9	2.5	2.625	0
2.750031	95.08652	11.1	2.625	2.75	2.1
2.875004	109.3985	13	2.75	2.875	1.9
3.000021	126.2663	26	2.875	3	13
3.125024	148.1729	42.8	3	3.125	16.8
3.250015	169.7004	56.3	3.125	3.25	13.5
3.37502	197.5495	68.8	3.25	3.375	12.5
3.500002	230.539	77.9	3.375	3.5	9.099998
3.625007	269.6655	90.7	3.5	3.625	12.8
3.750002	316.0908	92.2	3.625	3.75	1.5
3.875004	371.2139	94.8	3.75	3.875	2.600006
4.000007	436.6891	96.1	3.875	4	1.299995

SEDIDAT STATISTICS

GROUPED MOMENT MEASURES (McBride, 1971)

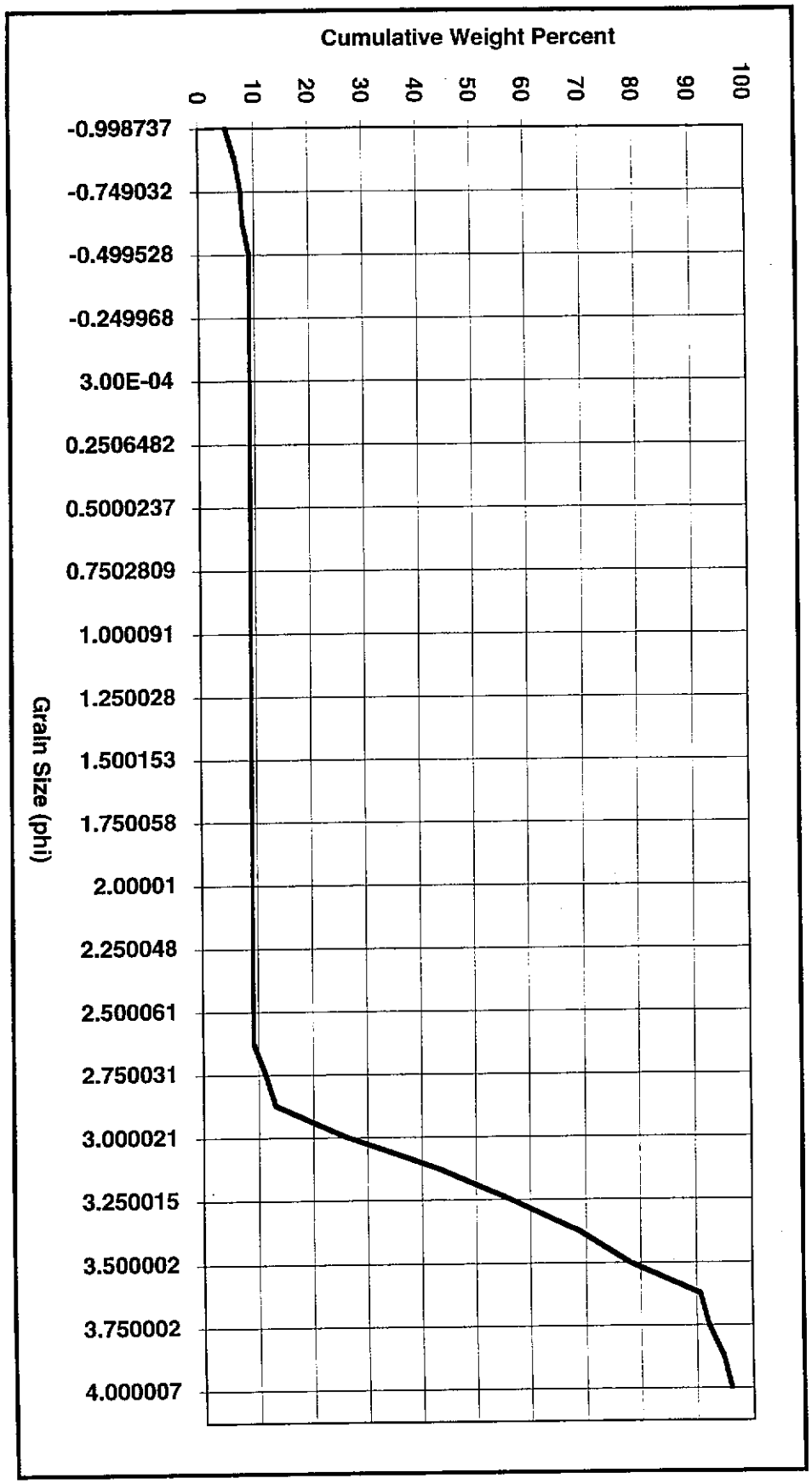
	.125 CHI	.125 PHI
Mean	6.450975	3.058256
Standard deviation	1.652943	0.8839205
Skewness	-2.329431	-3.720463
Kurtosis	7.340395	16.61652

GRAPHIC MEASURES (Folk and Ward, 1957)

	.125 CHI	.125 PHI
Mean	6.867706	3.214291
Standard deviation	1.192729	0.8916105
Skewness	-0.4378847	-0.7119851
Kurtosis	3.107149	4.286515

MODES Number	Velocity	CHI	PHI	Freq. %
1	0.5376509	7.539114	3.597252	1.948059 ;
2	0.5594897	7.481673	3.565571	1.948059 ;
3	0.3861898	8.016474	3.856652	1.948048 ;
4	0.9067593	6.785065	3.171133	1.948048 ;
5	28.92562	1.78958	-1.119256	1.948047 ;

PARAMETERS USED				
Number of data points	1000			
Gibbs eq. constants	0.055804	0.003114	4.5	8.71E-03
Dynamic viscosity (poises)	0.01			
Acceleration of gravity (cm/s)	979.21			
Fluid density (g/ml)	0.998			
Particle density (g/cm3)	2.65			
Size conversion using Komar FORAM correction, RD	0.9859			


Cumulative Weight Percent
0
10
20
30
40
50
60
70
80
90
100
Grain Size (phi)
-0.998737
-0.749032
-0.499528
-0.249968
3.00E-04
0.2506482
0.5000237
0.7502809
1.000091
1.250028
1.500153
1.750058
2.00001
2.250048
2.500061
2.750031
3.000021
3.250015
3.500002
3.750002
4.000007

File	c	tg3051.dat	Date	06-29-1994	
Sample name	g-51-3'				
Data collected on	06-28-1994				
Total settling time (min)	8.066667				
Settling distance (cm)	140				
Water temperature (degrees C)	21				

	CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %		
PHI	TIME(SEC)	% VALUE	RANGE		% VALUE
-0.9987372	5.159447	8			
-0.8747199	5.517604	9.2	-1	-0.875	1.2
-0.7490318	5.914483	9.2	-0.875	-0.75	0
-0.6245047	6.345241	9.2	-0.75	-0.625	0
-0.4995278	6.819561	9.2	-0.625	-0.5	0
-0.3742583	7.342282	9.7	-0.5	-0.375	0.5
-0.2499682	7.913404	10	-0.375	-0.25	0.3000002
-0.1248957	8.547447	10	-0.25	-0.125	0
3.00E-04	9.249241	10	-0.125	0	0
0.125003	10.02365	10	0	0.125	0
0.2506482	10.89001	10	0.125	0.25	0
0.3755397	11.84833	10	0.25	0.375	0
0.5000237	12.91313	10	0.375	0.5	0
0.625097	14.1086	10	0.5	0.625	0
0.7502809	15.44928	10	0.625	0.75	0
0.8750191	16.94968	10	0.75	0.875	0
1.000091	18.64364	10	0.875	1	0
1.125097	20.55544	10	1	1.125	0
1.250028	22.71888	10	1.125	1.25	0
1.375058	25.17768	10	1.25	1.375	0
1.500153	27.97997	10	1.375	1.5	0
1.625151	31.17932	10	1.5	1.625	0
1.750058	34.84328	10	1.625	1.75	0
1.875066	39.05887	10	1.75	1.875	0
2.00001	43.91824	10	1.875	2	0
2.125005	49.54228	10	2	2.125	0
2.250048	56.07149	10	2.125	2.25	0
2.375071	63.67005	10	2.25	2.375	0
2.500061	72.53685	10	2.375	2.5	0
2.625054	82.91396	10	2.5	2.625	0
2.750031	95.08652	10	2.625	2.75	0
2.875004	109.3985	10	2.75	2.875	0
3.000021	126.2663	14	2.875	3	4
3.125024	146.1729	30	3	3.125	16
3.250015	169.7004	50	3.125	3.25	20
3.37502	197.5495	68	3.25	3.375	18
3.500002	230.539	78	3.375	3.5	10
3.625007	269.6655	82	3.5	3.625	4
3.750002	316.0906	90	3.625	3.75	8
3.875004	371.2139	90	3.75	3.875	0
4.000007	436.6891	96	3.875	4	6

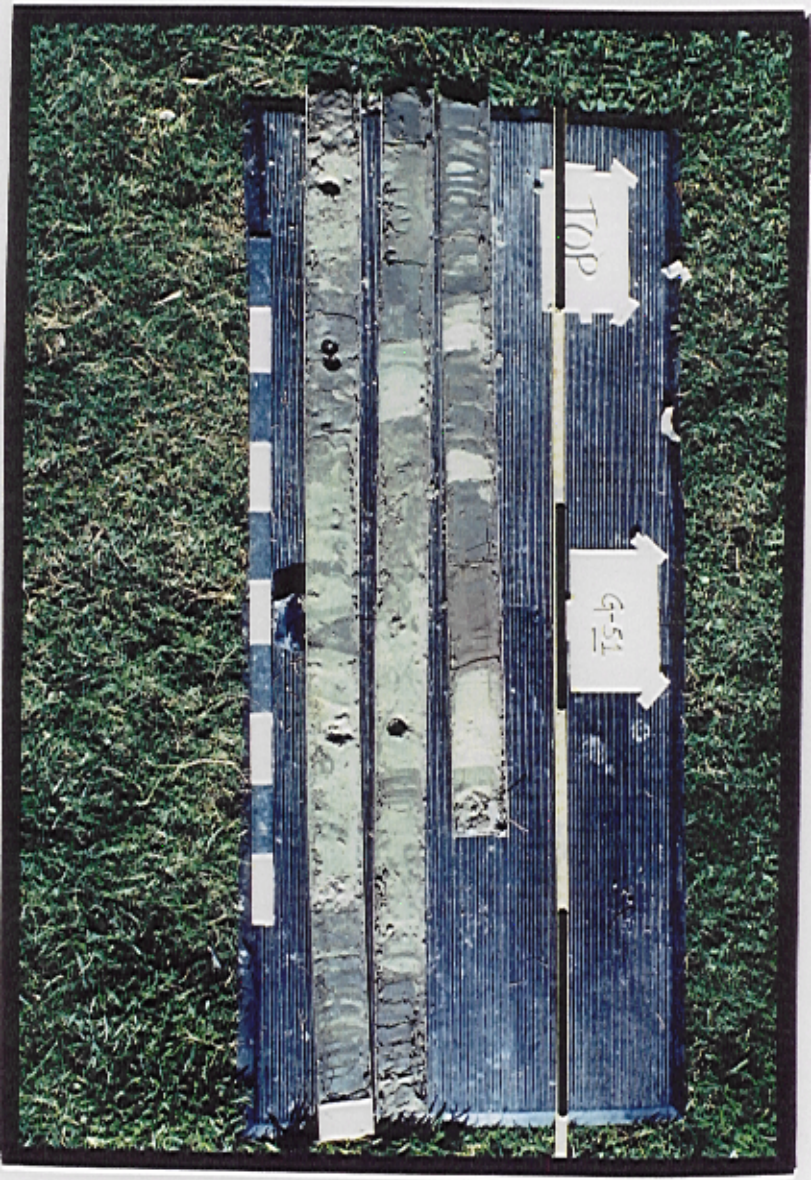
SEDIDAT STATISTICS

GROUPED MOMENT MEASURES (McBride, 1971)		
	.125 CHI	.125 PHI
Mean	6.28375	3.232244
Standard deviation	1.824361	0.6556717
Skewness	-2.237808	-4.924526
Kurtosis	6.255221	30.91135

GRAPHIC MEASURES (Folk and Ward, 1957)		
	.125 CHI	.125 PHI
Mean	6.91996	3.246627
Standard deviation	1.219978	0.9391257
Skewness	-1.088369	-1.914649
Kurtosis	4.903738	6.888089

MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.6315838	7.306856	3.468442	3.000011 ;
2	1.087429	6.522934	3.01676	3.000011 ;
3	0.3044802	8.359436	4.039444	2.999992 ;
4	0.5785124	7.433436	3.53868	2.999992 ;
5	0.6588979	7.245729	3.434212	2.999992 ;

PARAMETERS USED				
Number of data points	1000			
Gibbs sg. constants	0.055804	0.003114	4.5	8.71E-03
Dynamic viscosity (poises)	0.01			
Acceleration of gravity (cm/s)	979.21			
Fluid density (g/ml)	0.998			
Particle density (g/cm3)	2.65			
Size conversion using Komar FORAM correction, RD	0.9859			


Top
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