

PNEUMATIC HAMMER CORE CORE # G-15

PROJECT: Galveston Island Beach Replenishment

STATE PLANNING COORDINATES

3342327.54

547570.12

LAT/LONG COORDINATES

29°16.372° N

094°47.312° W

WATER DEPTH

21'8"

DATE

5/11/94

START TIME

1720

END TIME

1724

CORE DIAMETER

3"

LENGTH OF BARREL

20'

PENETRATION DEPTH

16'9"

LENGTH RECOVERED

14'9"

SUPPORT VESSEL:

R/V Lonestar

POSITIONING:

Trimble Differential GPS

ANALYSIS BY:

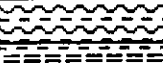
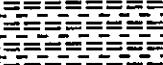
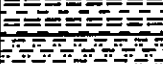
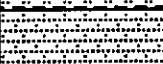
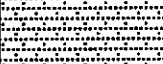
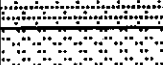
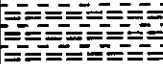
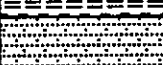
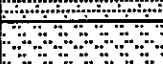
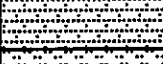
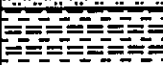
M. Hamilton

Rice University

ANALYSIS METHODS:

Visual Logging

Auto. Settling Tube

DEPTH CM. IN. CONTACT	LITHOLOGY	DESCRIPTION	GRAIN SIZE (PHI) MEAN	%SAND	%MUD
32 12 6		Mud 5YR4/1	3.10	87.17	10.72
64 24 32		Clay with discrete laminae of sandy clay 5Y4/1			
96 36 37		Clayey sand			
128 48 43		Clayey sand			
160 60 51		Interlaminated clayey sand and clay S:C=10:90	2.60	68.73	31.27
192 72 80		Very muddy, very fine sand 5Y4/1			
224 84 84		Clay 5Y3/1			
256 96 99		Interlaminated clayey sand and clay S:C=40:60			
288 108 114		Very muddy, very fine sand			
320 120 120		Bioturbated interlaminated clayey sand and sandy clay S:C= 15:85r	3.20	76.35	23.65
352 132 131		Very muddy, very fine sand 5Y4/1			
384 144 136		Clay with heavy bioturbation; thin lams of clayey sand are disturbed and homogenized with surrounding seds, due to bio-turbation. 5Y4/1			
416 156					
448 168 174					
480 180					
480 192					



SAND



MUDDY SAND



MUDDY SAND/CLAY



MUDDY SAND/CLAY



CLAYEY SAND



SANDY CLAY

INTERLAM.

INTERBEDS



SHELLY SAND



SHELL HASH

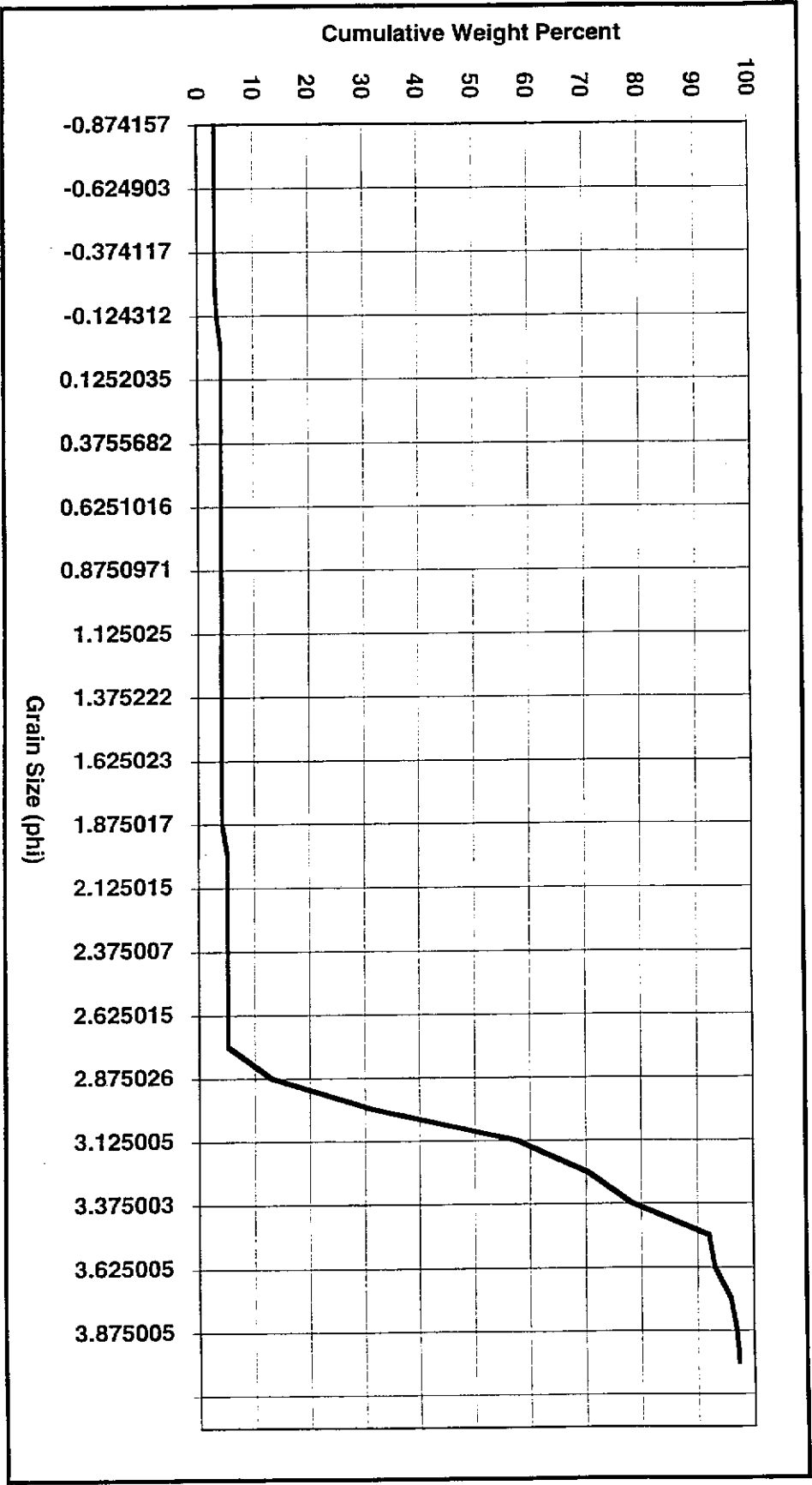


CLAY



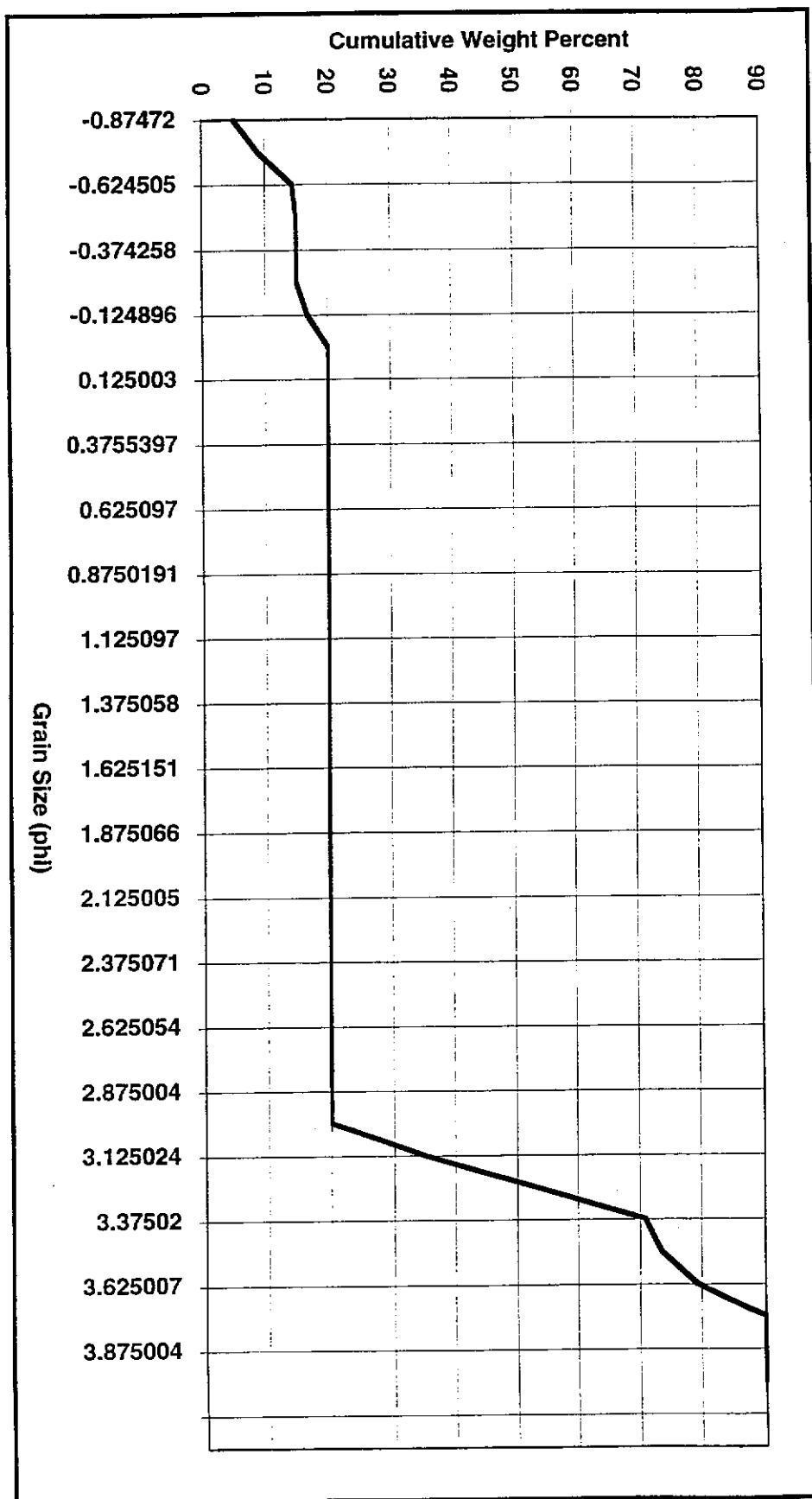
MUD

File	c	121015.dat	Date	06-28-1994
Sample name	g-15-0.5'			
Data collected on	6/27/94			
Total settling time (min)	8.083333			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
CUMULATIVE WEIGHT %			INDIVIDUAL WEIGHT %	
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9983899	5.160407	3		
-0.8741565	5.519304	3		
-0.7497373	5.912152	3		
-0.6249025	6.343801	3		
-0.4996436	6.819101	3		
-0.3741167	7.342902	3		
-0.2495951	7.915204	3		
-0.1243118	8.550557	3.3		
2.51E-04	9.248951	4		
0.1252035	10.02496	4		
0.2504074	10.88826	4		
0.3755682	11.84856	4		
0.5002926	12.91556	4		
0.6251016	14.10865	4		
0.7501019	15.44725	4		
0.8750971	16.95067	4		
1.000072	18.64336	4		
1.125025	20.55427	4		
1.250206	22.72218	4		
1.375222	25.18113	4		
1.500138	27.9796	4		
1.625023	31.17583	4		
1.750034	34.84249	4		
1.875017	39.05711	4		
2.000092	43.92166	5		
2.125015	49.54277	5		
2.250037	56.07092	5		
2.375007	63.66588	5		
2.500056	72.53645	5		
2.625015	82.9105	5		
2.750009	95.08424	5		
2.875026	109.4013	12.9		
3.000012	126.2651	31.3		
3.125005	146.1695	57.4		
3.250022	169.7019	70.3		
3.375003	197.5455	78.2		
3.500006	230.5401	92.1		
3.625005	269.6649	93.1		
3.75001	316.0943	96		
3.875005	371.2144	97		
4.000007	436.6894	97.4		
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.705789	3.101166		
Standard deviation	0.5881943	0.4220085		
Skewness	-3.346037	-4.622303		
Kurtosis	26.63549	36.12074		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	6.778195	3.162848		
Standard deviation	0.475569	0.2758956		
Skewness	0.3750241	0.3505417		
Kurtosis	1.126176	1.116395		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.6077048	7.362413	3.49943	2.970299
2	0.6288884	7.31298	3.471864	1.485146
3	1.183032	6.401367	2.943831	1.485145
4	1.306153	6.258533	2.85696	1.485145
5	1.081123	6.531326	3.021761	1.485144
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 Komer FORAM correction, RD	0.9859			

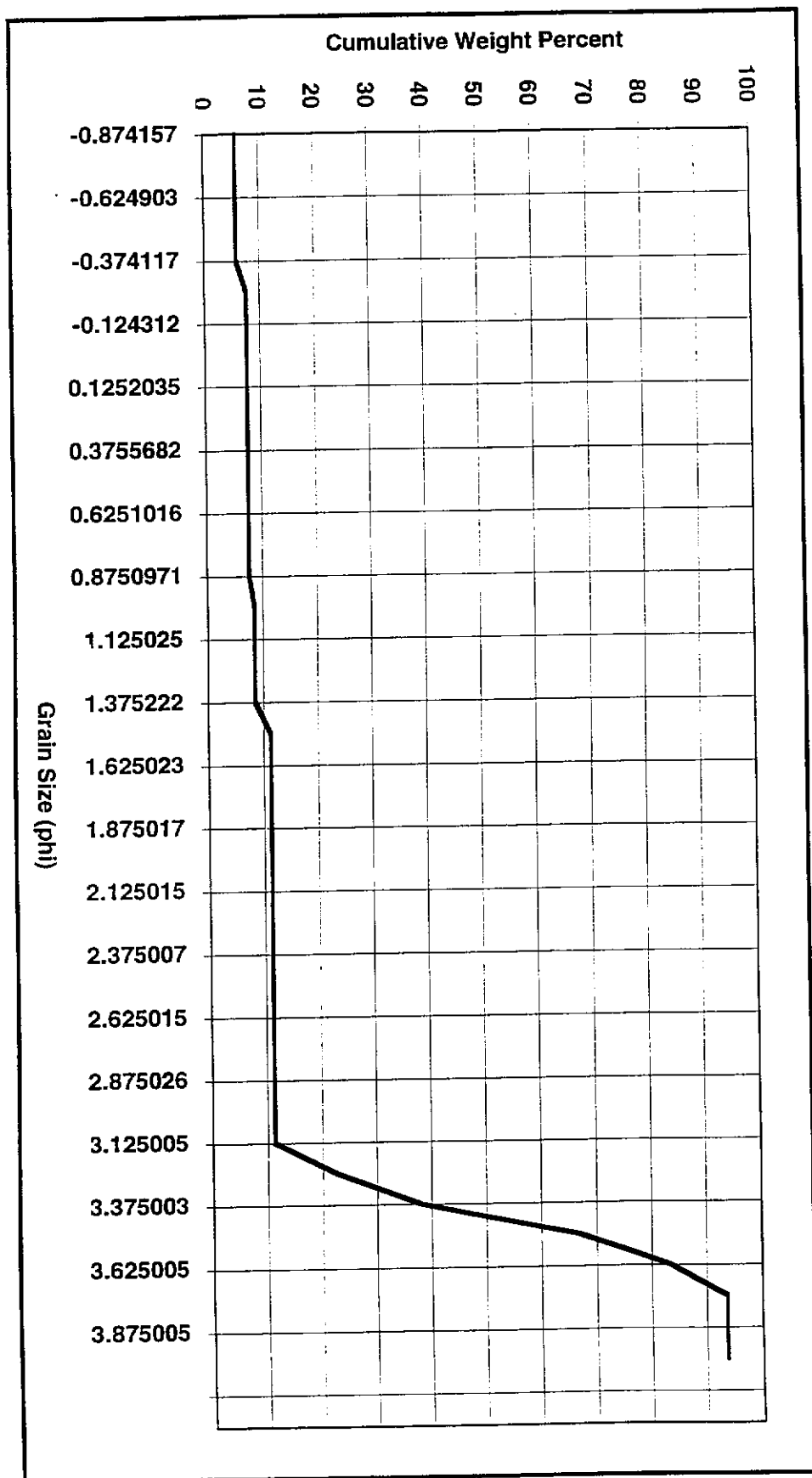


21015

File	c	t22015.dat	Date	06-28-1994
Sample name	g-15-4.2'			
Data collected on	6/17/94			
Total settling time (min)	8.066687			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
		CUMULATIVE WEIGHT %	INDIVIDUAL WEIGHT %	
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9987372	5.159447	5		
-0.8747199	5.517604	5	-1	-0.875
-0.7490318	5.914483	8.9	-0.875	-0.75
-0.6245047	6.345241	14.4	-0.75	-0.625
-0.4995278	6.819561	15	-0.625	-0.5
-0.3742583	7.342282	15	-0.5	-0.375
-0.2499682	7.913404	15	-0.375	-0.25
-0.1248957	8.547447	16.7	-0.25	-0.125
3.00E-04	9.249241	20	-0.125	0
0.125003	10.02385	20	0	0.125
0.2506482	10.89001	20	0.125	0.25
0.3755397	11.84833	20	0.25	0.375
0.5000237	12.91313	20	0.375	0.5
0.625097	14.1086	20	0.5	0.625
0.7502809	15.44929	20	0.625	0.75
0.8750191	16.94968	20	0.75	0.875
1.000091	18.64364	20	0.875	1
1.125097	20.55544	20	1	1.125
1.250028	22.71888	20	1.125	1.25
1.375058	25.17768	20	1.25	1.375
1.500153	27.97997	20	1.375	1.5
1.625151	31.17932	20	1.5	1.625
1.750058	34.84326	20	1.625	1.75
1.875066	39.05887	20	1.75	1.875
2.00001	43.91824	20	1.875	2
2.125005	49.54228	20	2	2.125
2.250048	56.07149	20	2.125	2.25
2.375071	63.87005	20	2.25	2.375
2.500061	72.53685	20	2.375	2.5
2.625054	82.91396	20	2.5	2.625
2.750031	95.08652	20	2.625	2.75
2.875004	109.3985	20	2.75	2.875
3.000021	126.2663	20	2.875	3
3.125024	146.1729	34.9	3	3.125
3.250015	169.7004	53.1	3.125	3.25
3.37502	197.5495	70.8	3.25	3.375
3.500002	230.539	73.4	3.375	3.5
3.625007	269.6655	79.2	3.5	3.625
3.750002	316.0908	90	3.625	3.75
3.875004	371.2139	90	3.75	3.875
4.000007	436.6891	90	3.875	4
SEDIDAT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.72932	2.633971		
Standard deviation	1.181969	1.478424		
Skewness	-3.03838	-1.657474		
Kurtosis	11.64025	3.91336		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	5.611479	2.189811		
Standard deviation	2.919272	3.041035		
Skewness	-0.8168441	-0.9459187		
Kurtosis	8.477539	18.10395		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.7322942	7.093361	3.348237	7.5
2	0.4011875	7.961508	3.827103	7.499977
3	0.5004433	7.642578	3.654044	7.499977
4	0.6076811	7.36247	3.498462	5.000019
5	0.6427916	7.281433	3.454224	5.000019
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 Komer FORAM correction, R0	0.9859			



File	c	t23015.dat	Date	06-28-1994
Sample name	g-15-10'			
Date collected on	6/27/94			
Total settling time (min)	8.083333			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %		
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9983899	5.160407	5.6		
-0.8741585	5.519304	5.6	-1	-0.875
-0.7497373	5.912152	5.6	-0.875	-0.75
-0.6249025	6.343801	5.6	-0.75	-0.625
-0.4996436	6.819101	5.6	-0.625	-0.5
-0.3741167	7.342902	5.6	-0.5	-0.375
-0.2495951	7.915204	7.4	-0.375	-0.25
-0.1243118	8.550557	7.4	-0.25	-0.125
2.51E-04	9.248951	7.4	-0.125	0
0.1252035	10.02496	7.4	0	0.125
0.2504074	10.88826	7.4	0.125	0.25
0.3755682	11.84856	7.4	0.25	0.375
0.5002926	12.91556	7.4	0.375	0.5
0.6251016	14.10865	7.4	0.5	0.625
0.7501019	15.44726	7.4	0.625	0.75
0.8750971	16.95067	7.4	0.75	0.875
1.000072	18.64336	8.3	0.875	1
1.125025	20.55427	8.3	1	1.125
1.250206	22.72218	8.3	1.125	1.25
1.375222	25.18113	8.3	1.25	1.375
1.500138	27.9796	11.1	1.375	1.5
1.625023	31.17583	11.1	1.5	1.625
1.750034	34.84249	11.1	1.625	1.75
1.875017	39.05711	11.1	1.75	1.875
2.000092	43.92166	11.1	1.875	2
2.125015	49.54277	11.1	2	2.125
2.250037	56.07092	11.1	2.125	2.25
2.375007	63.86588	11.1	2.25	2.375
2.500056	72.53645	11.1	2.375	2.5
2.625015	82.9105	11.1	2.5	2.625
2.750009	95.08424	11.1	2.625	2.75
2.875026	109.4013	11.1	2.75	2.875
3.000012	126.2651	11.1	2.875	3
3.125005	146.1695	11.1	3	3.125
3.250022	169.7019	22.5	3.125	3.25
3.375003	197.5455	38	3.25	3.375
3.500006	230.5401	66.7	3.375	3.5
3.625005	269.6649	83.3	3.5	3.625
3.750001	316.0943	93.7	3.625	3.75
3.875005	371.2144	93.7	3.75	3.875
4.000007	436.6894	93.7	3.875	4
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 PHI	.125 PHI		
Mean	7.255413	3.270502		
Standard deviation	0.5437914	0.6867035		
Skewness	-3.731876	-3.861844		
Kurtosis	26.81788	18.14059		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 PHI	.125 PHI		
Mean	7.212326	3.412858		
Standard deviation	1.75163	1.95839		
Skewness	-1.330145	-2.582444		
Kurtosis	7.302589	15.51673		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.8018327	6.982483	3.273595	4.166683
2	0.4925935	7.665387	3.686518	4.166656
3	0.5238835	7.576539	3.617834	2.77779
4	0.5964045	7.389493	3.514493	2.77779
5	0.8115673	7.353273	3.49434	2.77779
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	0.3859			



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1/3 2/3 3/3

