

PNEUMATIC HAMMER CORE **CORE # G-12**

PROJECT: Galveston Island Beach Replenishment

STATE PLANNING COORDINATES 3351684.91 555197.04 LAT/LONG COORDINATES 29°17.574° N 094°45.500° W WATER DEPTH 20'7" DATE 5/11/94 START TIME 1400 END TIME 1408 CORE DIAMETER 3" LENGTH OF BARREL 20' PENETRATION DEPTH 14'10" LENGTH RECOVERED 13'4" SUPPORT VESSEL: R/V Lonestar POSITIONING: Trimble Differential GPS ANALYSIS BY: M. Hamilton Rice University ANALYSIS METHODS: Visual Logging Auto. Settling Tube	DEPTH	LITHOLOGY	DESCRIPTION	GRAIN SIZE (PHI) MEAN	%SAND	%MUD
	CM. IN. CONTACT					
	32 12	8	Intercalated sand and mud 5YR4/1	2.64	79.16	14.86
	64 24	17	Interbedded clayey sand and sandy clay			
		23	Clay 5Y4/1			
	96 36		Muddy, very fine sand	3.03	88.59	11.20
	128 48					
	160 60	54	Clean, very fine sand			
	192 72					
	224 84			2.79	98.55	1.45
	256 96					
	288 108		Abundant laminae at base	3.14	89.38	10.02
	320 120	116	Interlaminated clay and muddy sand			
	352 132	127	Clean very fine sand 5Y6/1			
	384 144	140	Interbedded muddy sand and clay			
	416 156	160				
	448 168					
	480 180					
	480 192					



SAND



MUDDY SAND



MUDDY SAND/CLAY
INTERLAM.



MUDDY SAND/CLAY
INTERBEDS



CLAYEY
SAND



SANDY
CLAY



SHELLY SAND



SHELL HASH

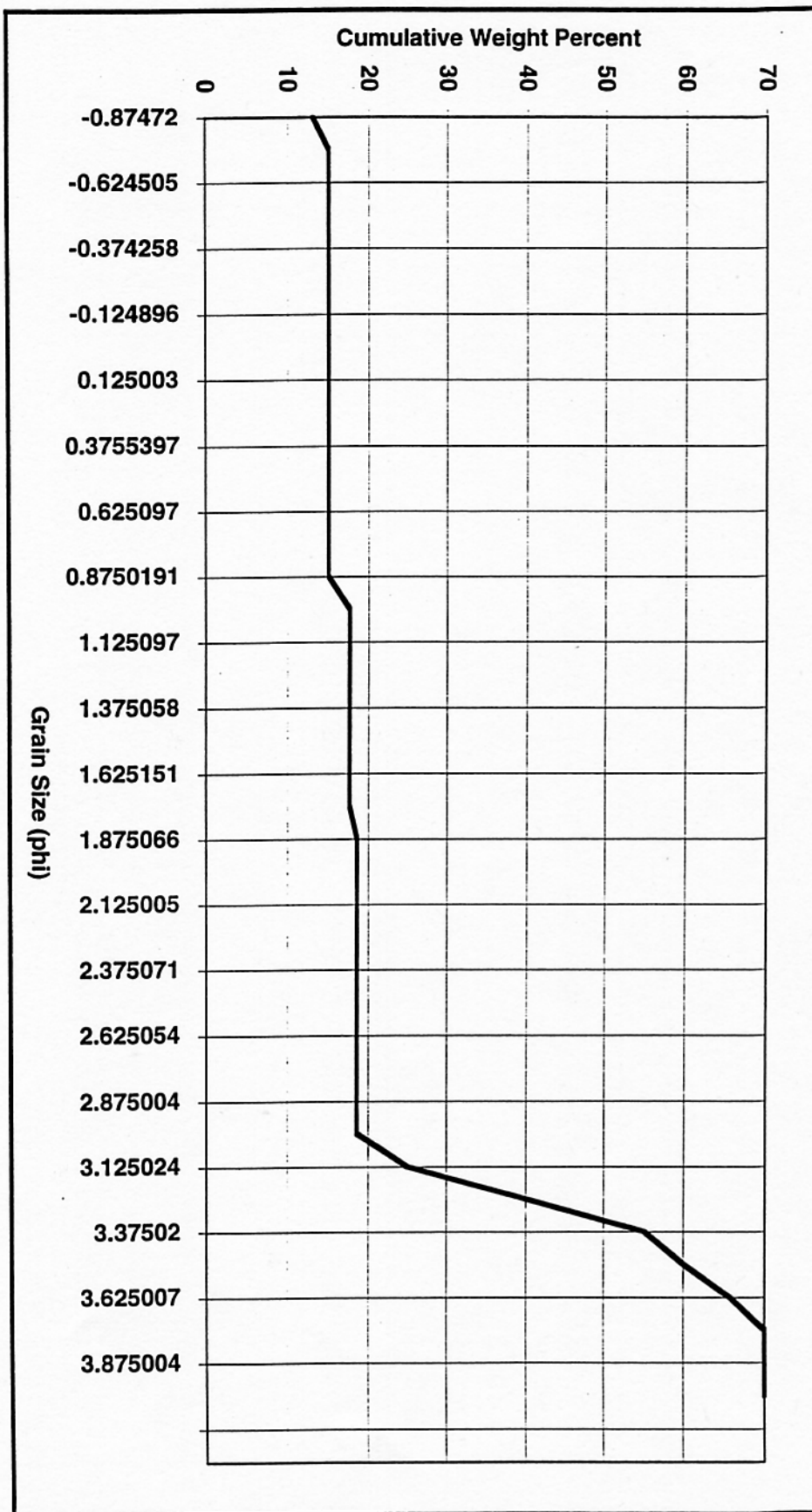


CLAY



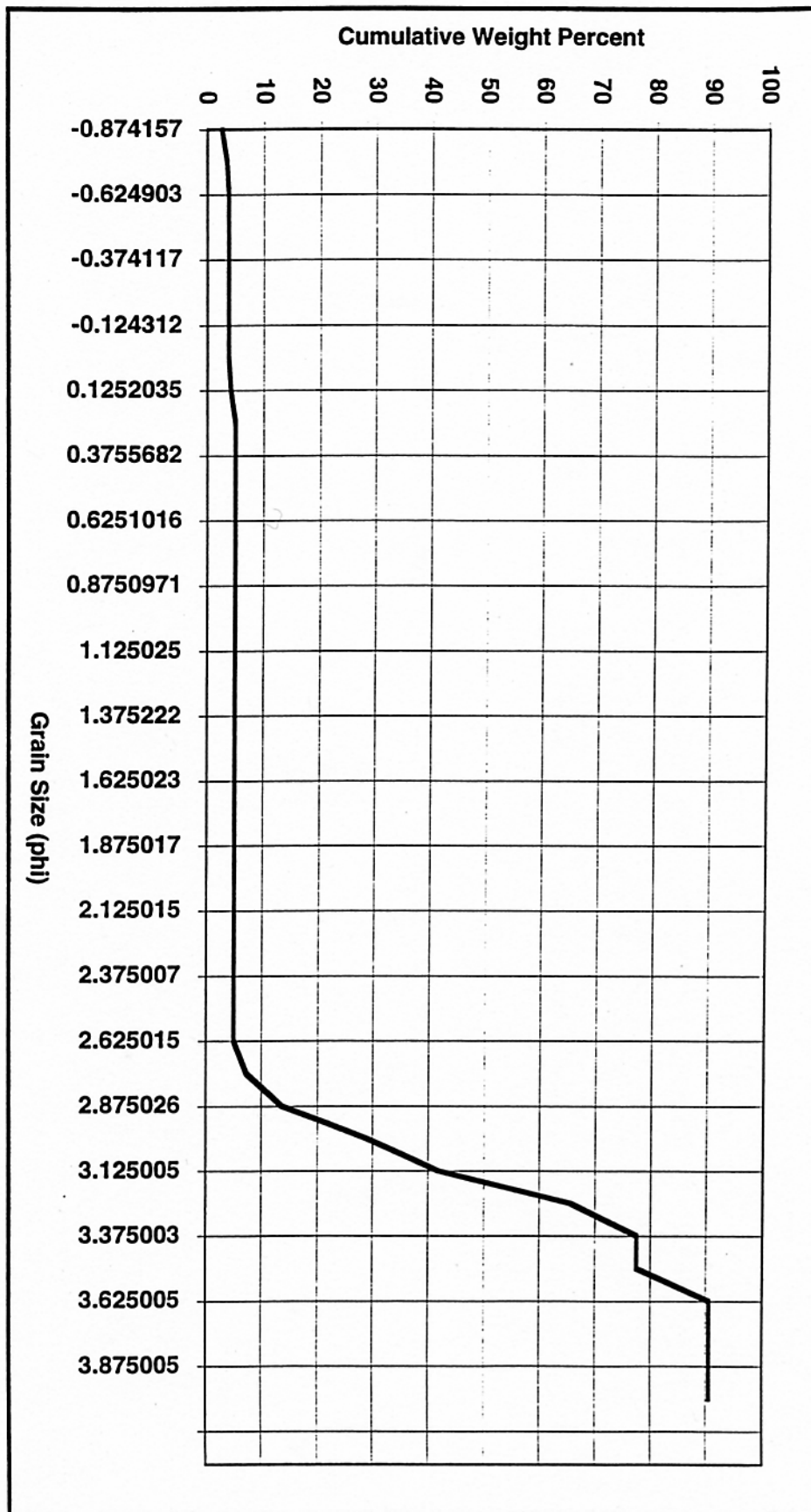
MUD

File	c	t10012.dat	Date	06-22-1994
Sample name	g-12-0.9'			
Data collected on	6/17/94			
Total settling time (min)	8.06667			
Settling distance (cm)	140			
Water temperature (degrees C)	21			
CUMULATIVE WEIGHT %		INDIVIDUAL WEIGHT %		
PHI	TIME(SEC)	% VALUE	RANGE	% VALUE
-0.9987372	5.159447	6.7		
-0.8747199	5.517604	13	-1	-0.875
-0.7490318	5.914483	15	-0.875	-0.75
-0.6245047	6.345241	15	-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	15	-0.25	-0.125
3.00E-04	9.249241	15	-0.125	0
0.125003	10.02365	15	0	0.125
0.2506482	10.89001	15	0.125	0.25
0.3755397	11.84833	15	0.25	0.375
0.5000237	12.91313	15	0.375	0.5
0.625097	14.1086	15	0.5	0.625
0.7502809	15.44929	15	0.625	0.75
0.8750191	16.94968	15	0.75	0.875
1.000091	18.64364	17.6	0.875	1
1.125097	20.55544	17.6	1	1.125
1.250028	22.71888	17.6	1.125	1.25
1.375058	25.17768	17.6	1.25	1.375
1.500153	27.97997	17.6	1.375	1.5
1.625151	31.17932	17.6	1.5	1.625
1.750058	34.84326	17.6	1.625	1.75
1.875066	39.05887	18.5	1.75	1.875
2.00001	43.91824	18.5	1.875	2
2.125005	49.54228	18.5	2	2.125
2.250048	56.07149	18.5	2.125	2.25
2.375071	63.67005	18.5	2.25	2.375
2.500061	72.53685	18.5	2.375	2.5
2.625054	82.91396	18.5	2.5	2.625
2.750031	95.08652	18.5	2.625	2.75
2.875004	109.3985	18.5	2.75	2.875
3.000021	126.2663	18.5	2.875	3
3.125024	146.1729	24.9	3	3.125
3.250015	169.7004	40	3.125	3.25
3.37502	197.5495	55	3.25	3.375
3.500002	230.539	60	3.375	3.5
3.625007	269.6655	65.8	3.5	3.625
3.750002	316.0908	70	3.625	3.75
3.875004	371.2139	70	3.75	3.875
4.000007	436.6891	70	3.875	4
SEDIDAT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
		.125 CHI	.125 PHI	
Mean		5.00246	2.642871	
Standard deviation		2.366414	1.475438	
Skewness		-0.5566541	-1.799432	
Kurtosis		1.497036	4.528619	
GRAPHIC MEASURES (Folk and Ward, 1957)				
		.125 CHI	.125 PHI	
Mean		6.227691	2.6773	
Standard deviation		2.198912	1.605952	
Skewness		-0.5324844	-0.6622114	
Kurtosis		0.8193052	1.056566	
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.2945583	8.407231	4.064721	9.99999
2	1.116819	6.48446	2.993776	7.500005
3	3.908868	4.677105	1.780505	7.500005
4	0.3951587	7.983352	3.838856	7.499983
5	0.5727845	7.447792	3.546832	7.499983
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			



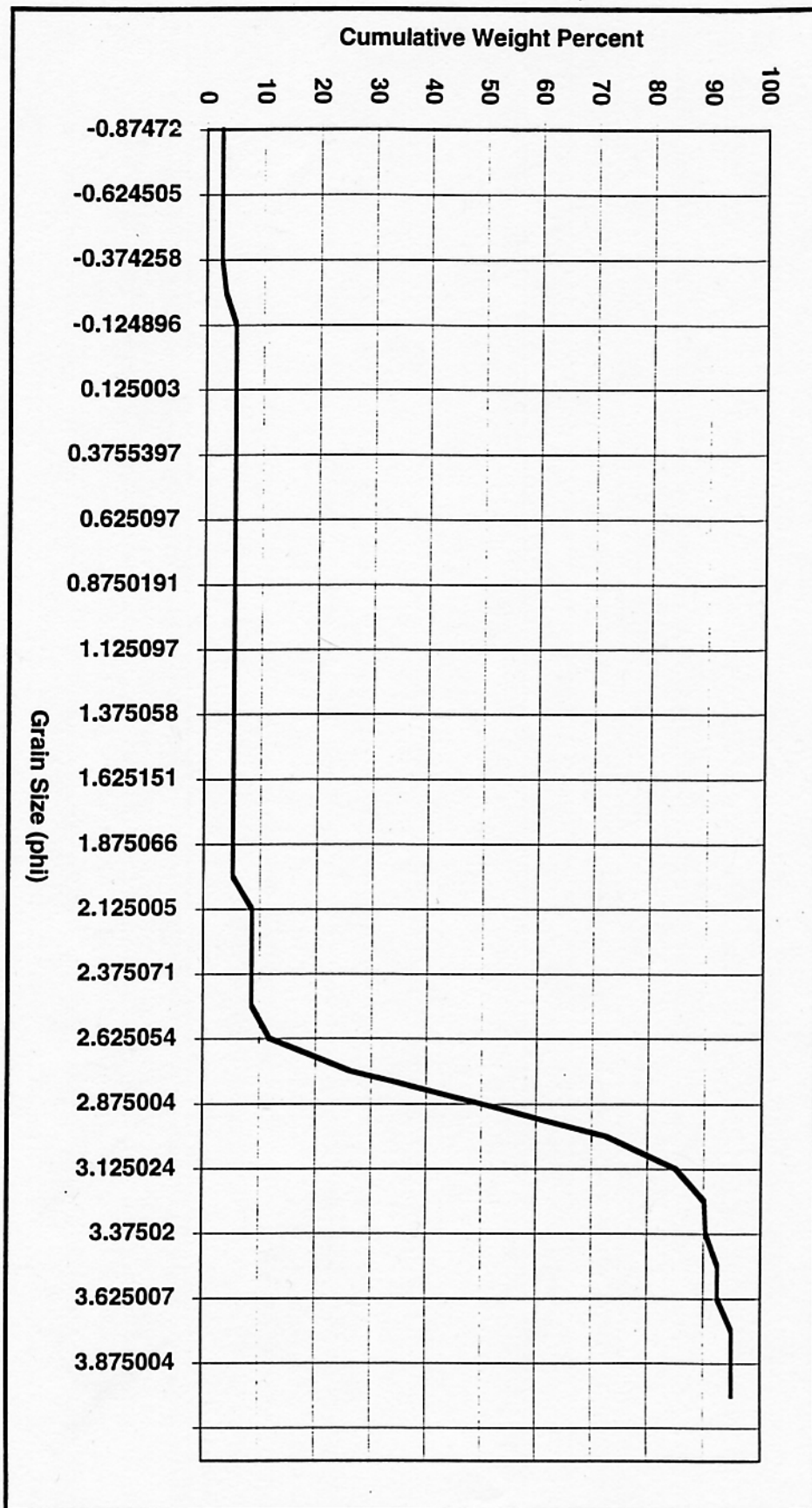
10012

File	a	t11012.dat	Date	06-28-1994
Sample name	g-12-3'			
Data collected on	6/17/94			
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	1.6		
-0.8741565	5.519304	2.4		
-0.7497373	5.912152	3.3	-0.875	0.8000001
-0.6249025	6.343801	3.6	-0.75	0.3
-0.4996436	6.819101	3.6	-0.625	0
-0.3741167	7.342902	3.6	-0.5	0
-0.2495951	7.915204	3.6	-0.375	0
-0.1243118	8.550557	3.6	-0.25	0
2.51E-04	9.248951	3.6	-0.125	0
0.1252035	10.02496	4	0	0.4000001
0.2504074	10.88826	4.8	0.125	0.8000002
0.3755682	11.84856	4.8	0.25	0
0.5002926	12.91556	4.8	0.375	0
0.6251016	14.10865	4.8	0.5	0
0.7501019	15.44726	4.8	0.625	0
0.8750971	16.95067	4.8	0.75	0
1.000072	18.64336	4.8	0.875	0
1.125025	20.55427	4.8	1	0
1.250206	22.72218	4.8	1.125	0
1.375222	25.18113	4.8	1.25	0
1.500138	27.9796	4.8	1.375	0
1.625023	31.17583	4.8	1.5	0
1.750034	34.84249	4.8	1.625	0
1.875017	39.05711	4.8	1.75	0
2.000092	43.92166	4.8	1.875	0
2.125015	49.54277	4.8	2	0
2.250037	56.07092	4.8	2.125	0
2.375007	63.66588	4.8	2.25	0
2.500056	72.53645	4.8	2.375	0
2.625015	82.9105	4.8	2.5	0
2.750009	95.08424	7.1	2.625	2.3
2.875026	109.4013	13.6	2.75	6.5
3.000012	126.2651	28.6	2.875	15
3.125005	146.1695	41.7	3	13.1
3.250022	169.7019	65.5	3.125	23.8
3.375003	197.5455	77.4	3.25	11.9
3.500006	230.5401	77.4	3.375	0
3.625005	269.6649	90.5	3.5	13.1
3.75001	316.0943	90.5	3.625	0
3.875005	371.2144	90.5	3.75	0
4.000007	436.6894	90.5	3.875	0
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.749198	3.026786		
Standard deviation	0.388869	0.7192255		
Skewness	0.3059933	-4.312944		
Kurtosis	2.468129	22.46167		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	6.830218	3.192048		
Standard deviation	0.8284433	0.4971724		
Skewness	3.66E-02	-5.97E-02		
Kurtosis	2.491753	2.607311		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	0.310721	8.330165	4.023942	2.976192
2	0.4545823	7.781243	3.72964	2.380962
3	0.3621829	8.109066	3.906262	2.380951
4	0.5761872	7.439297	3.542127	2.380951
5	0.8565573	6.867235	3.218778	2.380951
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			

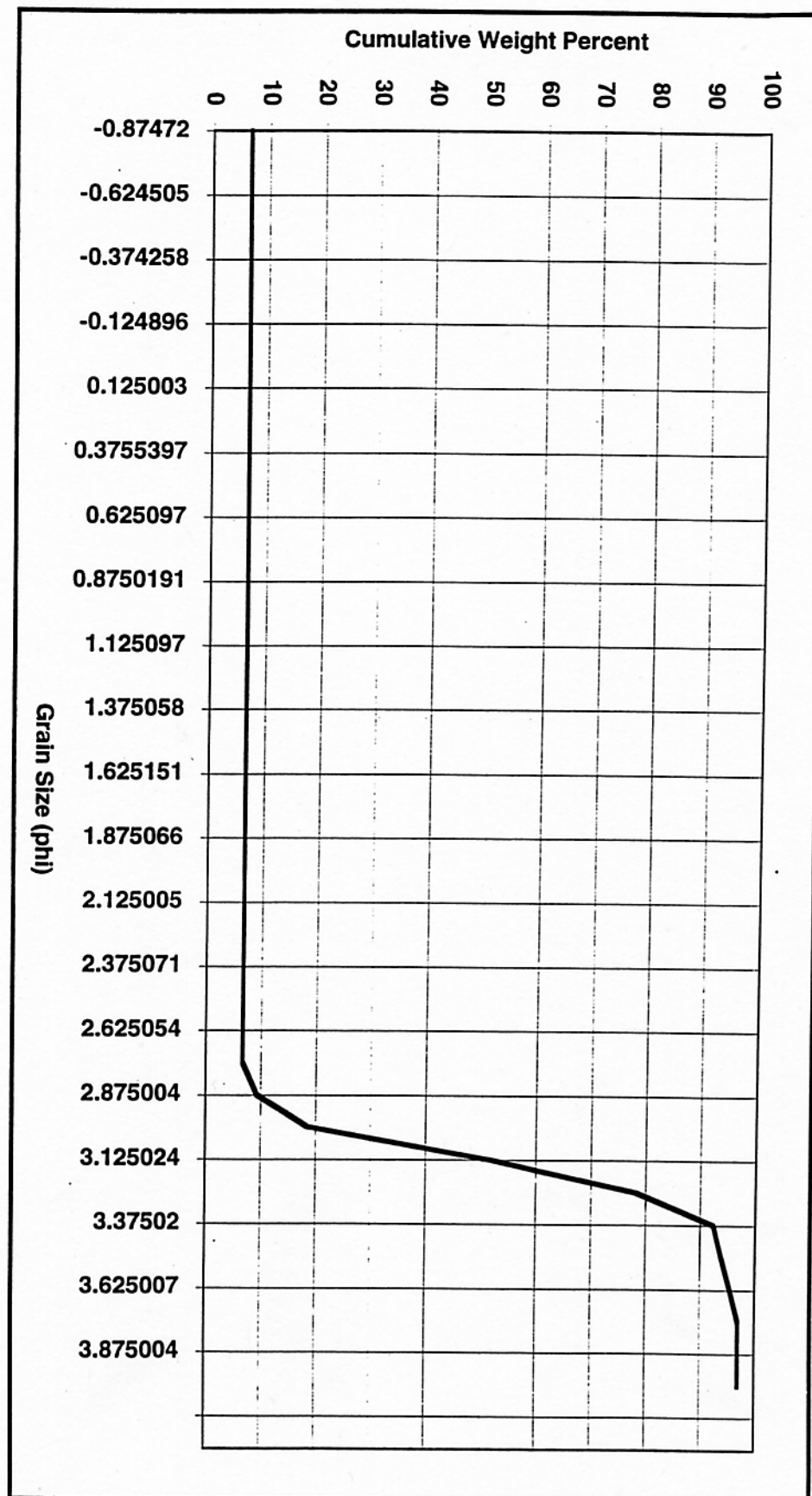


11012

File	c	t12012.dat	Date	06-28-1994
Sample name	g-12-7'			
Data collected on	6/27/94			
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	2.5		
-0.8747199	5.517604	2.5		
-0.7490318	5.914483	2.5	-1	-0.875
-0.6245047	6.345241	2.5	-0.875	-0.75
-0.4995278	6.819581	2.5	-0.75	-0.625
-0.3742583	7.342282	2.5	-0.625	-0.5
-0.2499882	7.913404	3.2	-0.5	-0.375
-0.1248957	8.547447	5	-0.375	-0.25
3.00E-04	9.249241	5	-0.25	-0.125
0.125003	10.02365	5	-0.125	0
0.2508482	10.89001	5	0	0.125
0.3755397	11.84833	5	0.125	0.25
0.5000237	12.91313	5	0.25	0.375
0.625097	14.1086	5	0.375	0.5
0.7502809	15.44929	5	0.5	0.625
0.8750191	16.94968	5	0.625	0.75
1.000091	18.64384	5	0.75	0.875
1.125097	20.55544	5	0.875	1
1.250028	22.71888	5	1	1.125
1.375058	25.17768	5	1.125	1.25
1.500153	27.97997	5	1.25	1.375
1.625151	31.17932	5	1.375	1.5
1.750058	34.84326	5	1.5	1.625
1.875066	39.05887	5	1.625	1.75
2.00001	43.91824	5	1.75	1.875
2.125005	49.54228	8.4	1.875	2
2.250048	56.07149	8.4	2	2.125
2.375071	63.67005	8.4	2.125	2.25
2.500081	72.53685	8.4	2.25	2.375
2.625054	82.91396	11.7	2.375	2.5
2.750031	95.08652	26.1	2.5	2.625
2.875004	109.3985	50	2.625	2.75
3.000021	126.2663	72.5	2.75	2.875
3.125024	146.1729	85	2.875	3
3.250015	169.7004	90	3	3.125
3.37502	197.5495	90.4	3.125	3.25
3.500002	230.539	92.5	3.25	3.375
3.625007	269.6655	92.5	3.375	3.5
3.750002	316.0908	95	3.5	3.625
3.875004	371.2139	95	3.625	3.75
4.000007	436.6891	95	3.75	3.875
SEDIDAT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.067895	2.798986		
Standard deviation	1.117701	0.5698093		
Skewness	-3.100016	-3.945398		
Kurtosis	13.1626	21.73374		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	6.323087	2.893786		
Standard deviation	0.5184255	0.3214939		
Skewness	-9.16E-02	-0.158017		
Kurtosis	2.084867	2.136733		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	1.180638	6.40429	2.945595	3.750013
2	2.493588	5.325633	2.251336	3.750002
3	0.2912953	8.423302	4.073211	3.749992
4	1.563547	5.999033	2.695563	3.74999
5	0.4970038	7.652527	3.659487	3.749989
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			



File	c	t13012.dat	Date	06-28-1994
Sample name	g-12-9'			
Data collected on	6/27/94			
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	6.5		
-0.8747199	5.517604	6.5	-1	-0.875
-0.7490318	5.914483	6.5	-0.875	-0.75
-0.6245047	6.345241	6.5	-0.75	-0.625
-0.4995278	6.819561	6.5	-0.625	-0.5
-0.3742583	7.342282	6.5	-0.5	-0.375
-0.2499682	7.913404	6.5	-0.375	-0.25
-0.1248957	8.547447	6.5	-0.25	-0.125
3.00E-04	9.249241	6.5	-0.125	0
0.125003	10.02365	6.5	0	0.125
0.2506482	10.89001	6.5	0.125	0.25
0.3755397	11.84833	6.5	0.25	0.375
0.5000237	12.91313	6.5	0.375	0.5
0.625097	14.1086	6.5	0.5	0.625
0.7502809	15.44929	6.5	0.625	0.75
0.8750191	16.94968	6.5	0.75	0.875
1.000091	18.64364	6.5	0.875	1
1.125097	20.55544	6.5	1	1.125
1.250028	22.71888	6.5	1.125	1.25
1.375058	25.17768	6.5	1.25	1.375
1.500153	27.97997	6.5	1.375	1.5
1.625151	31.17932	6.5	1.5	1.625
1.750058	34.84326	6.5	1.625	1.75
1.875066	39.05887	6.5	1.75	1.875
2.00001	43.91824	6.5	1.875	2
2.125005	49.54228	6.5	2	2.125
2.250048	56.07149	6.5	2.125	2.25
2.375071	63.67005	6.5	2.25	2.375
2.500061	72.53685	6.5	2.375	2.5
2.625054	82.91396	6.5	2.5	2.625
2.750031	95.08652	6.5	2.625	2.75
2.875004	109.3985	9.1	2.75	2.875
3.000021	126.2663	18.4	2.875	3
3.125024	146.1729	51.5	3	3.125
3.250015	169.7004	78.2	3.125	3.25
3.37502	197.5495	92.4	3.25	3.375
3.500002	230.539	93.9	3.375	3.5
3.625007	269.6655	95.5	3.5	3.625
3.750002	316.0908	97	3.625	3.75
3.875004	371.2139	97	3.75	3.875
4.000007	436.6891	97	3.875	4
SEDIMENT STATISTICS				
GROUPED MOMENT MEASURES (McBride, 1971)				
	.125 CHI	.125 PHI		
Mean	6.773232	3.143992		
Standard deviation	0.2500618	0.1562103		
Skewness	0.9775099	0.7889869		
Kurtosis	3.609671	4.635641		
GRAPHIC MEASURES (Folk and Ward, 1957)				
	.125 CHI	.125 PHI		
Mean	6.699989	3.120012		
Standard deviation	1.707441	2.092285		
Skewness	-0.4067786	-0.4864685		
Kurtosis	12.69232	27.71384		
MODES				
Number	Velocity	CHI	PHI	Freq. %
1	1.095667	6.512046	3.010264	3.0303
2	0.6544258	7.255555	3.439724	2.272736
3	1.161672	6.427654	2.959677	2.272735
4	0.8148062	6.939327	3.260308	2.27272
5	0.3455869	8.178736	3.942393	1.51516
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			



13012

G-12

1/3 2/3 3/3

