

DRILLING LOG		DIVISION: South Atlantic	INSTALLATION: Jacksonville District	SHEET 1 of 1
1. PROJECT DELRAY BEACH		10. SIZE AND TYPE OF BIT 3"		
2. LOCATION (Coordinates or Station) X= 966,225 Y= 772,375		11. DATUM FOR ELEVATION SHOWN (TBM or MSL) NGVD		
3. DRILLING AGENCY: ALPINE SEISMIC		12. MANUFACTURER'S DESIGNATION OF DRILL ALPINE PNEUMATIC		
4. HOLE NO. (As shown on drawing title and file number) DB-99-8		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 0.0 undisturbed: 0.0		
5. NAME OF DRILLER ROB SUSKO		14. TOTAL NO. OF CORE BOXES 1		
6. DIRECTION OF HOLE VERTICAL		15. ELEVATION GROUND WATER		
7. THICKNESS OF BURDEN 0.0 FT		16. DATE HOLE Started Completed 4/20/99 4/20/99		
8. DEPTH DRILLED INTO ROCK 0.0 FT		17. ELEVATION TOP OF HOLE -32.3 ft.		
9. TOTAL DEPTH OF HOLE 18.3 FT		18. TOTAL CORE RECOVERY FOR BORING 92%		
19. SIGNATURE OF GEOLOGIST IBRAHIM DREMALI				

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS	
-32.3	0		SAND, medium-grained, little shell hash, Gray (5Y-6/1) (SP)		1	SP Sample #1, Depth = 0.2' 0.50 mm, 1.61 phi sorting 0.66% silt	
	1						
	2						
	3			fine-grained, little shell hash, Gray (5Y-6/1) (SP) from -32.7' to -37.4'		2	Sample #2, Depth = 3.0' 0.23 mm, 0.73 phi sorting 1.16% silt
	4						
-37.4	5						
	6						
	7					3	Sample #3, Depth = 7.0' 0.23 mm, 0.61 phi sorting 1.78% silt
	8						
	9						
	10						
	11			fine-grained, trace shell hash, Gray (5Y-5/1) (SP) from -37.4' to -50.6'		4	Sample #4, Depth = 11.0' 0.24 mm, 0.70 phi sorting 1.13% silt
	12						
	13						
	14						
	15						
	16					5	Sample #5, Depth = 16.0' 0.27 mm, 0.86 phi sorting 1.66% silt
	17						
-50.6	18						
	19			End of Boring			
	20						
	21						
	22						
	23						
	24						

PROJECT: Delray Beach HOLE NUMBER:

GRADATION ANALYSIS REPORT
DELRAY BEACH VIBRACORES 1999
TESTED BY: RW ON: 8/99

SAMPLE NO.: DB99-8 S#1
SAMPLE ELEV. (FT. NGVD): . . .
SAMPLE DEPTH (FT.): 0.2
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 142.73
SAMPLE WEIGHT AFTER WASH (GRAMS): 141.82

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	1.29	0.90	99.10
5	-2.00	4.000	8.04	5.63	94.37
7	-1.50	2.800	11.61	8.13	91.87
10	-1.00	2.000	18.35	12.86	87.14
14	-0.50	1.400	28.26	19.80	80.20
18	0.00	1.000	37.94	26.58	73.42
25	0.50	0.710	48.93	34.28	65.72
35	1.00	0.500	63.16	44.25	55.75
45	1.50	0.355	74.46	52.17	47.83
60	2.00	0.250	90.29	63.26	36.74
80	2.50	0.180	113.98	79.86	20.14
120	3.00	0.125	136.61	95.71	4.29
170	3.50	0.090	141.72	99.29	0.71
200	3.75	0.075	141.79	99.34	0.66
230	4.00	0.063	142.26	99.67	0.33
PAN			142.72	99.99	0.01

PHI(5): -2.13 PHI(16): -0.77 PHI(25): -0.12
PHI(50): 1.36 PHI(75): 2.35 PHI(84): 2.63
PHI(95): 2.98

SIEVE LOSS(g): 0.01 SILT/CLAY: 0.66%
SKEWNESS: -0.553 KURTOSIS: 0.848

GRAPHIC METHOD

MEAN (PHI): 0.81 SORTING: 1.70
MEAN (mm): 0.57 MEDIAN (mm): 0.39
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.01 SORTING: 1.61
MEAN (mm): 0.50

DATA FILE NAME: DB99-8#1.TAB

GRADATION ANALYSIS REPORT
DELRAY BEACH VIBRACORES 1999
TESTED BY: RW ON: 8/99

SAMPLE NO.: DB99-8 S#2
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 3.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 208.65
SAMPLE WEIGHT AFTER WASH (GRAMS): 206.33

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.00	0.00	100.00
5	-2.00	4.000	0.28	0.13	99.87
7	-1.50	2.800	0.50	0.24	99.76
10	-1.00	2.000	0.95	0.46	99.54
14	-0.50	1.400	1.95	0.93	99.07
18	0.00	1.000	3.51	1.68	98.32
25	0.50	0.710	6.61	3.17	96.83
35	1.00	0.500	15.23	7.30	92.70
45	1.50	0.355	29.83	14.30	85.70
60	2.00	0.250	69.28	33.20	66.80
80	2.50	0.180	144.61	69.31	30.69
120	3.00	0.125	199.81	95.76	4.24
170	3.50	0.090	206.14	98.80	1.20
200	3.75	0.075	206.24	98.84	1.16
230	4.00	0.063	207.46	99.43	0.57
PAN			208.62	99.99	0.01

PHI(5): 0.72 PHI(16): 1.55 PHI(25): 1.78
PHI(50): 2.23 PHI(75): 2.61 PHI(84): 2.78
PHI(95): 2.99

SIEVE LOSS(g): 0.03 SILT/CLAY: 1.16%
SKEWNESS: -0.615 KURTOSIS: 1.125

GRAPHIC METHOD

MEAN (PHI): 0.00 SORTING: 0.62
MEAN (mm) : 1.00 MEDIAN (mm): 0.21
NOTE: MEAN WAS CALCULATED USING POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.11 SORTING: 0.73
MEAN (mm) : 0.23

DATA FILE NAME: DB99-8#2.TAB

GRADATION ANALYSIS REPORT
DELRAY BEACH VIBRACORES 1999
TESTED BY: RW ON: 8/99

SAMPLE NO.: DB99-8 S#3
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 7.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 209.88
SAMPLE WEIGHT AFTER WASH (GRAMS): 206.56

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.00	0.00	100.00
5	-2.00	4.000	0.00	0.00	100.00
7	-1.50	2.800	0.12	0.06	99.94
10	-1.00	2.000	0.27	0.13	99.87
14	-0.50	1.400	0.62	0.30	99.70
18	0.00	1.000	1.26	0.60	99.40
25	0.50	0.710	2.91	1.39	98.61
35	1.00	0.500	9.40	4.48	95.52
45	1.50	0.355	25.29	12.05	87.95
60	2.00	0.250	78.76	37.53	62.47
80	2.50	0.180	160.02	76.24	23.76
120	3.00	0.125	201.90	96.20	3.80
170	3.50	0.090	205.92	98.11	1.89
200	3.75	0.075	206.15	98.22	1.78
230	4.00	0.063	207.99	99.10	0.90
PAN			209.86	99.99	0.01

PHI (5): 1.03 PHI (16): 1.58 PHI (25): 1.75
PHI (50): 2.16 PHI (75): 2.48 PHI (84): 2.69
PHI (95): 2.97

SIEVE LOSS(g): 0.02 SILT/CLAY: 1.78%
SKEWNESS: -0.285 KURTOSIS: 1.087

GRAPHIC METHOD

MEAN (PHI): 2.09 SORTING: 0.56
MEAN (mm) : 0.24 MEDIAN (mm): 0.22

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.10 SORTING: 0.61
MEAN (mm) : 0.23

DATA FILE NAME: DB99-8#3.TAB

GRADATION ANALYSIS REPORT
DELRAY BEACH VIBRACORES 1999
TESTED BY: RW ON: 8/99

SAMPLE NO.: PB99-8 S#4
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 11.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 200.96
SAMPLE WEIGHT AFTER WASH (GRAMS): 198.74

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.00	0.00	100.00
5	-2.00	4.000	0.43	0.21	99.79
7	-1.50	2.800	0.61	0.30	99.70
10	-1.00	2.000	1.37	0.68	99.32
14	-0.50	1.400	2.11	1.05	98.95
18	0.00	1.000	2.98	1.48	98.52
25	0.50	0.710	5.74	2.86	97.14
35	1.00	0.500	13.01	6.47	93.53
45	1.50	0.355	28.49	14.18	85.82
60	2.00	0.250	79.80	39.71	60.29
80	2.50	0.180	153.40	76.33	23.67
120	3.00	0.125	194.28	96.68	3.32
170	3.50	0.090	198.58	98.82	1.18
200	3.75	0.075	198.68	98.87	1.13
230	4.00	0.063	199.82	99.43	0.57
PAN			200.96	100.00	0.00

PHI(5): 0.80 PHI(16): 1.54 PHI(25): 1.71
PHI(50): 2.14 PHI(75): 2.48 PHI(84): 2.69
PHI(95): 2.96

SIEVE LOSS(g): 0.00 SILT/CLAY: 1.13%
SKEWNESS: -0.456 KURTOSIS: 1.151

GRAPHIC METHOD

MEAN (PHI): 2.02 SORTING: 0.58
MEAN (mm) : 0.25 MEDIAN (mm): 0.23
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.05 SORTING: 0.70
MEAN (mm) : 0.24

DATA FILE NAME: DB99-8#4.TAB

GRADATION ANALYSIS REPORT
DELRAY BEACH VIBRACORES 1999
TESTED BY: RW ON: 8/99

SAMPLE NO.: DB99-8 S#5
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 16.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 220.45
SAMPLE WEIGHT AFTER WASH (GRAMS): 216.93

SIEVE SIZE	PHI SIZE	MESH SIZE (mm)	RETAINED (GRAMS)	RETAINED (%)	PASSED (%)
5/8	-4.00	16.000	0.00	0.00	100.00
5/16	-3.00	8.000	0.00	0.00	100.00
5	-2.00	4.000	0.55	0.25	99.75
7	-1.50	2.800	0.93	0.42	99.58
10	-1.00	2.000	2.22	1.01	98.99
14	-0.50	1.400	4.46	2.02	97.98
18	0.00	1.000	8.12	3.68	96.32
25	0.50	0.710	16.52	7.49	92.51
35	1.00	0.500	29.75	13.50	86.50
45	1.50	0.355	48.66	22.07	77.93
60	2.00	0.250	103.07	46.75	53.25
80	2.50	0.180	176.17	79.91	20.09
120	3.00	0.125	213.21	96.72	3.28
170	3.50	0.090	216.72	98.31	1.69
200	3.75	0.075	216.79	98.34	1.66
230	4.00	0.063	218.62	99.17	0.83
PAN			220.44	100.00	0.00

PHI (5): 0.17 PHI (16): 1.15 PHI (25): 1.56
PHI (50): 2.05 PHI (75): 2.43 PHI (84): 2.62
PHI (95): 2.95

SIEVE LOSS(g): 0.01 SILT/CLAY: 1.66%
SKEWNESS: -0.662 KURTOSIS: 1.313

GRAPHIC METHOD

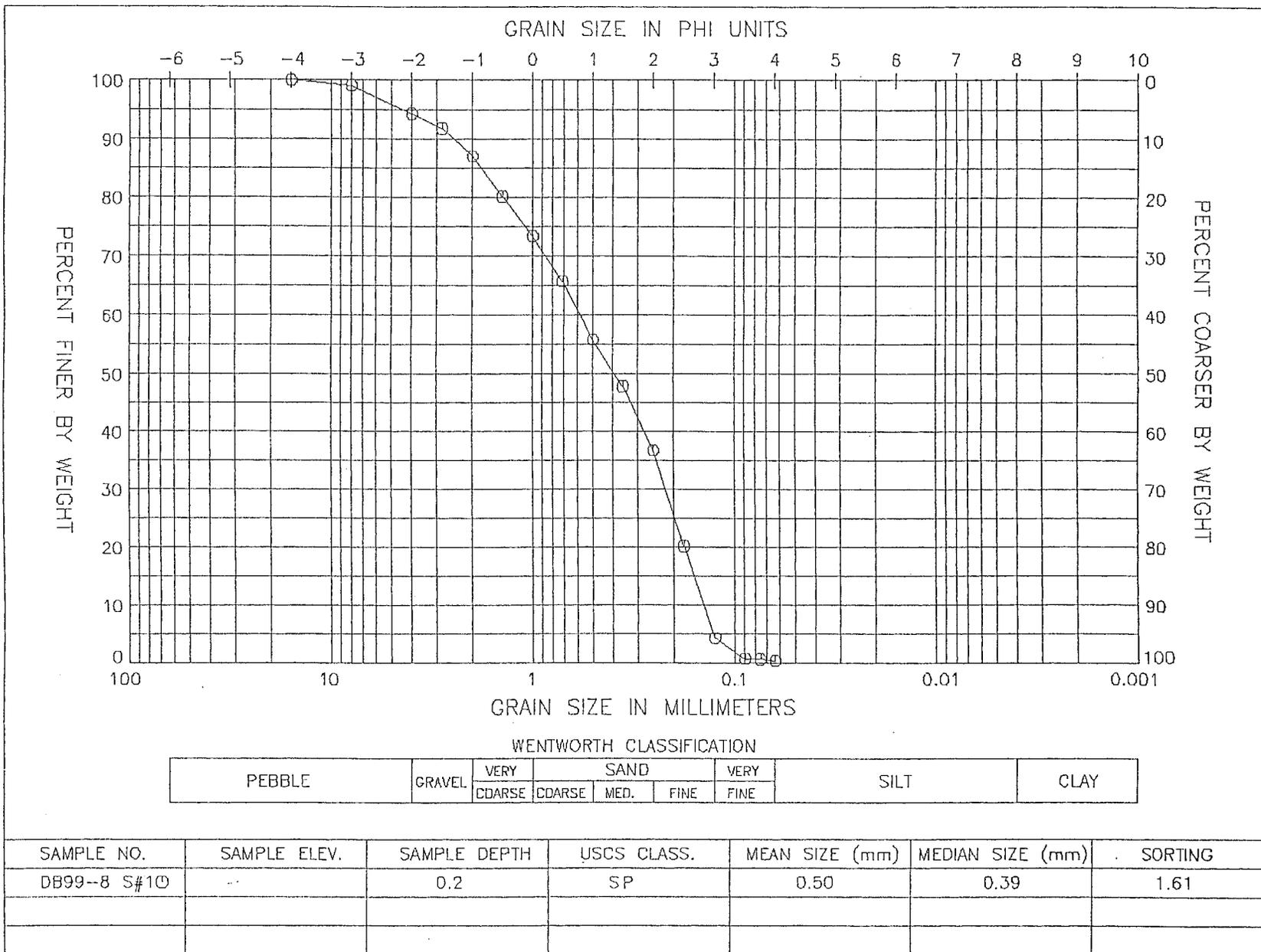
MEAN (PHI): 1.79 SORTING: 0.74
MEAN (mm) : 0.29 MEDIAN (mm): 0.24
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

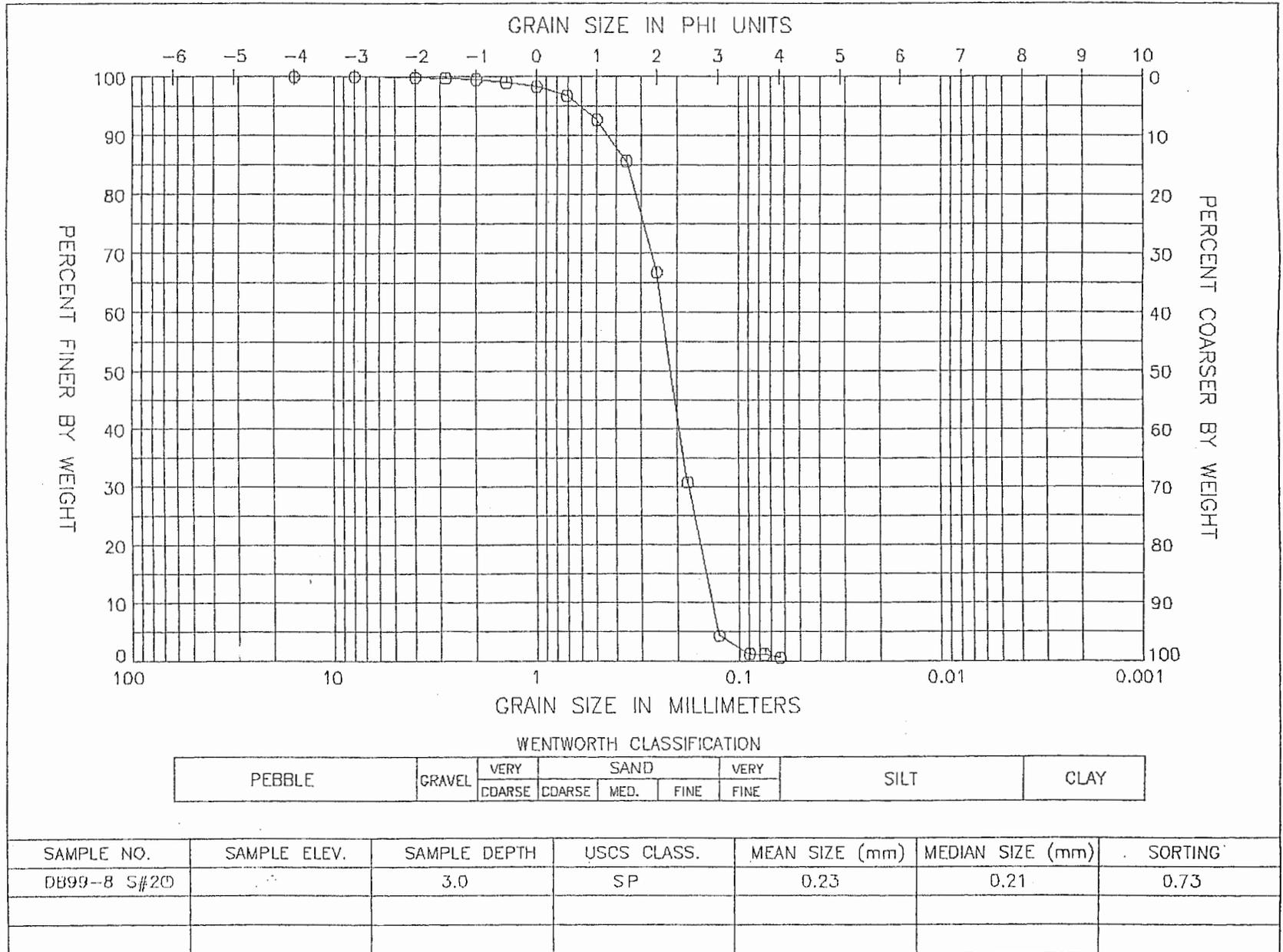
MEAN (PHI): 1.87 SORTING: 0.86
MEAN (mm) : 0.27

DATA FILE NAME: DB99-8#5.TAB

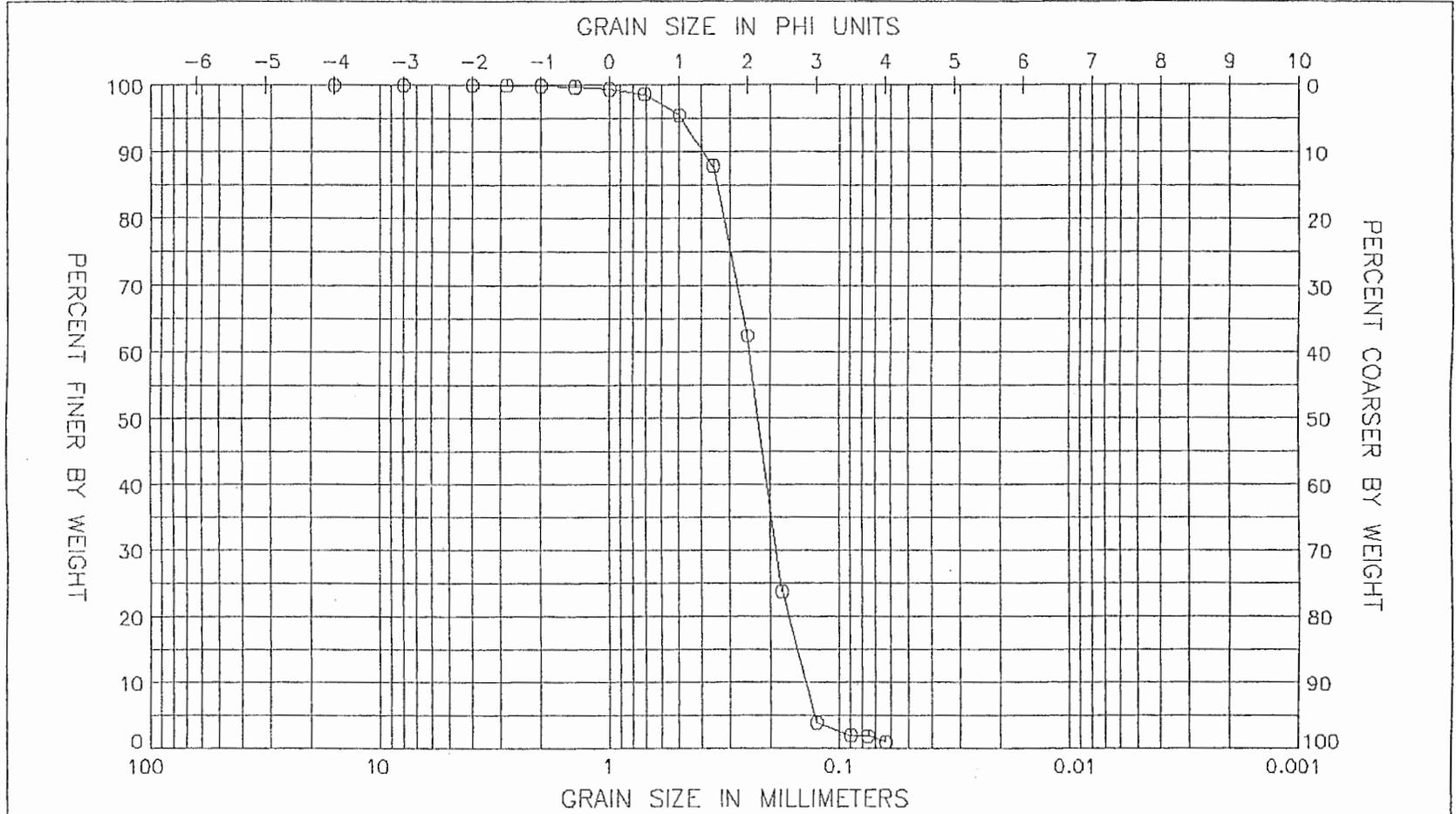
GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



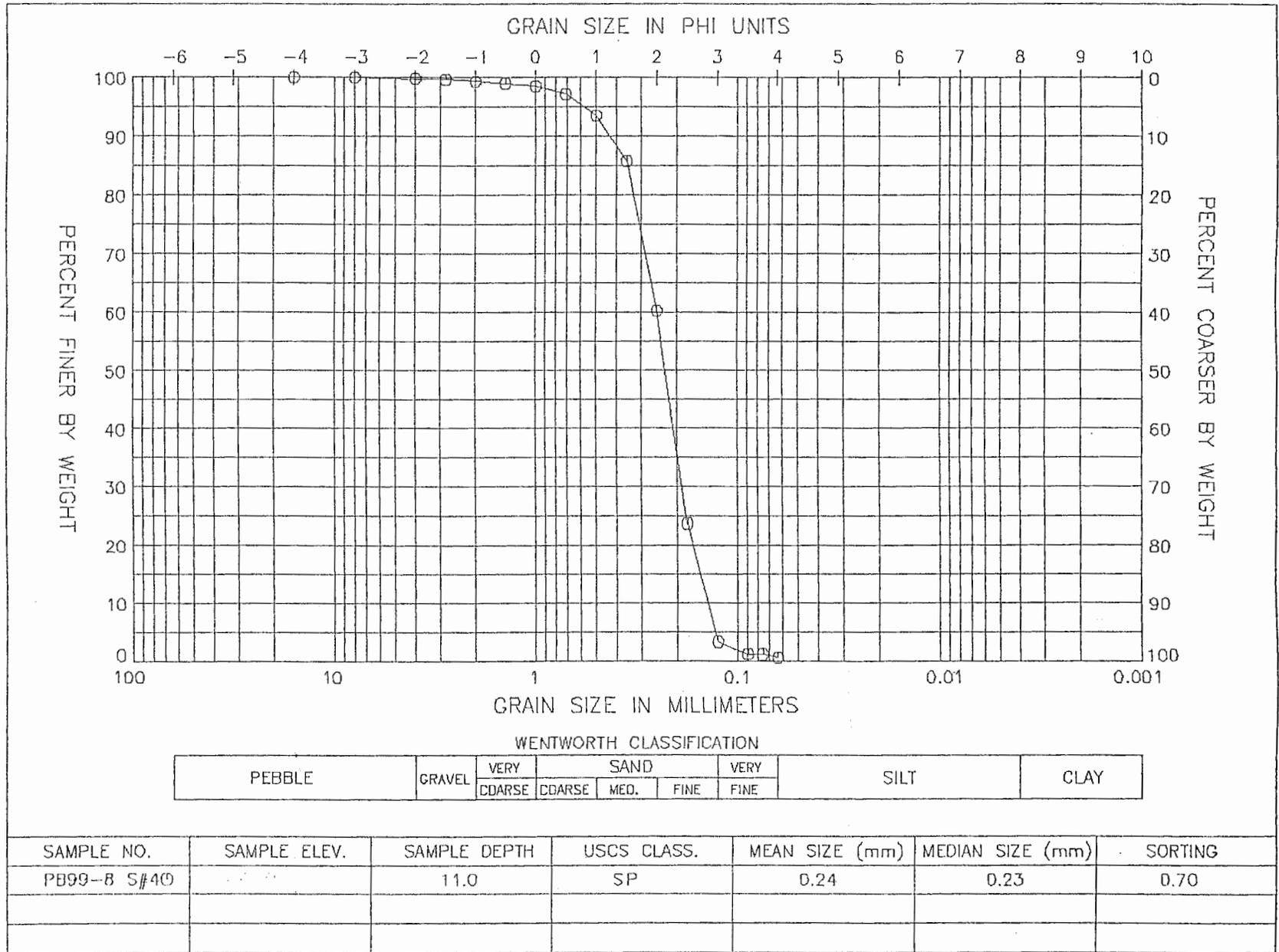
GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



WENTWORTH CLASSIFICATION							
PEBBLE	GRAVEL	VERY	SAND		VERY	SILT	CLAY
		COARSE	COARSE	MED.	FINE		

SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
DB99-8 S#30		7.0	SP	0.23	0.22	0.61

GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999

