

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= 966064 Y= 770893		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-99-22		13. TOT NO. OF OVERBURDEN SAMPLES TAKEN disturbed: 0.0 undisturbed: 0.0		
6. 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 -48.4 ft.		
9. TOTAL DEPTH OF HOLE 18.9' FT		18. TOTAL CORE RECOVERY FOR BORING 96%		
		19. SIGNATURE OF GEOLOGIST IBRAHIM DREMALI		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS	
-48.4	0					SP	
-50.1	1		SAND, fine-grained, trace shell hash, Gray (5Y-6/1) (SP)		1	Sample #1, Depth = 0.60' 0.24 mm, 0.67 phi sorting 1.47% silt	
	2		fine-grained, trace shell hash, Gray (5Y-6/1) (SP) from -50.1' to -52.2'		2	Sample #2, Depth = 2.4' 0.38 mm, 1.24 phi sorting 0.9% silt	
	3					3	Sample #3, Depth = 6.0' 0.23 mm, 0.67 phi sorting 4.38% silt
-52.2	4		fine-grained, trace shell hash, Gray (5Y-6/1) (SP) from -52.2 to -67.3		4	Sample #4, Depth = 11.0' 0.22 mm, 0.70 phi sorting 2.15% silt	
	5					5	Sample #5, Depth = 16.0' 0.21 mm, 0.76 phi sorting 8.18% silt
	6						
	7						
	8						
	9						
	10						
	11						
	12						
	13						
	14						
	15						
	16						
	17						
	18						
-67.3	19		End of Boring				
	20						
	21						
	22						
	23						
	24						

Note: Soils are classified in accordance with the Unified Soils Classification System.

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

SAMPLE NO.: DB99-22#1
 SAMPLE ELEV. (FT. NGVD):
 SAMPLE DEPTH (FT.): 0.60
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 102.64
 SAMPLE WEIGHT AFTER WASH (GRAMS): 101.16

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	0.01	0.01	99.99
10	-1.00	2.000	0.11	0.11	99.89
14	-0.50	1.400	0.36	0.35	99.65
18	0.00	1.000	0.67	0.65	99.35
25	0.50	0.710	1.85	1.80	98.20
35	1.00	0.500	6.15	5.99	94.01
45	1.50	0.355	15.56	15.16	84.84
60	2.00	0.250	41.56	40.49	59.51
80	2.50	0.180	75.34	73.40	26.60
120	3.00	0.125	96.40	93.92	6.08
170	3.50	0.090	101.05	98.45	1.55
200	3.75	0.075	101.13	98.53	1.47
230	4.00	0.063	101.87	99.25	0.75
PAN			102.62	99.98	0.02

PHI(5): 0.88 PHI(16): 1.52 PHI(25): 1.69
 PHI(50): 2.14 PHI(75): 2.54 PHI(84): 2.76
 PHI(95): 3.12

SIEVE LOSS(g): 0.02 SILT/CLAY: 1.47%
 SKEWNESS: -0.232 KURTOSIS: 1.086

GRAPHIC METHOD
 MEAN (PHI): 2.08 SORTING: 0.62
 MEAN (mm) : 0.24 MEDIAN (mm): 0.23
 NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD
 MEAN (PHI): 2.09 SORTING: 0.67
 MEAN (mm) : 0.24

DATA FILE NAME: DB99-22#1.TAB

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

SAMPLE NO.: DB99-22#2
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 2.4
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 107.08
SAMPLE WEIGHT AFTER WASH (GRAMS): 106.16

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	1.15	1.07	98.93
5	-2.00	4.000	3.47	3.24	96.76
7	-1.50	2.800	4.16	3.88	96.12
10	-1.00	2.000	5.81	5.43	94.57
14	-0.50	1.400	8.25	7.70	92.30
18	0.00	1.000	11.43	10.67	89.33
25	0.50	0.710	17.96	16.77	83.23
35	1.00	0.500	29.01	27.09	72.91
45	1.50	0.355	43.35	40.48	59.52
60	2.00	0.250	68.96	64.40	35.60
80	2.50	0.180	93.96	87.75	12.25
120	3.00	0.125	104.84	97.91	2.09
170	3.50	0.090	106.10	99.08	0.92
200	3.75	0.075	106.12	99.10	0.90
230	4.00	0.063	106.59	99.54	0.46
PAN			107.07	99.99	0.01

PHI (5): -1.14 PHI (16): 0.44 PHI (25): 0.90
PHI (50): 1.70 PHI (75): 2.23 PHI (84): 2.42
PHI (95): 2.86

SIEVE LOSS (g): 0.01 SILT/CLAY: 0.90%
SKEWNESS: -0.847 KURTOSIS: 1.233

GRAPHIC METHOD

MEAN (PHI): 1.25 SORTING: 0.99
MEAN (mm): 0.42 MEDIAN (mm): 0.31
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.40 SORTING: 1.24
MEAN (mm): 0.38

DATA FILE NAME: DB99-22#2.TAB

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

SAMPLE NO.: DB99-22#3
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 6.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 104.83
SAMPLE WEIGHT AFTER WASH (GRAMS): 100.27

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	0.07	0.07	99.93
10	-1.00	2.000	0.29	0.28	99.72
14	-0.50	1.400	0.59	0.56	99.44
18	0.00	1.000	1.11	1.06	98.94
25	0.50	0.710	2.10	2.00	98.00
35	1.00	0.500	5.20	4.96	95.04
45	1.50	0.355	12.58	12.00	88.00
60	2.00	0.250	39.96	38.12	61.88
80	2.50	0.180	77.84	74.25	25.75
120	3.00	0.125	98.08	93.56	6.44
170	3.50	0.090	100.20	95.58	4.42
200	3.75	0.075	100.24	95.62	4.38
230	4.00	0.063	102.55	97.83	2.17
PAN			104.83	100.00	0.00

PHI(5): 1.00 PHI(16): 1.58 PHI(25): 1.75
PHI(50): 2.16 PHI(75): 2.52 PHI(84): 2.75
PHI(95): 3.36

SIEVE LOSS(g): 0.00 SILT/CLAY: 4.38%
SKEWNESS: 0.025 KURTOSIS: 1.252

GRAPHIC METHOD

MEAN (PHI): 2.17 SORTING: 0.59
MEAN (mm) : 0.22 MEDIAN (mm): 0.22
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.10 SORTING: 0.67
MEAN (mm) : 0.23

DATA FILE NAME: DB99-22#3.TAB

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

SAMPLE NO.: DB99-22#4
 SAMPLE ELEV. (FT. NGVD):
 SAMPLE DEPTH (FT.): 11.0
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 95.83
 SAMPLE WEIGHT AFTER WASH (GRAMS): 93.83

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	0.14	0.15	99.85
7	-1.50	2.800	0.19	0.20	99.80
10	-1.00	2.000	0.42	0.44	99.56
14	-0.50	1.400	0.76	0.79	99.21
18	0.00	1.000	1.12	1.17	98.83
25	0.50	0.710	1.93	2.01	97.99
35	1.00	0.500	4.14	4.32	95.68
45	1.50	0.355	10.16	10.60	89.40
60	2.00	0.250	30.71	32.05	67.95
80	2.50	0.180	62.11	64.81	35.19
120	3.00	0.125	88.30	92.14	7.86
170	3.50	0.090	93.71	97.79	2.21
200	3.75	0.075	93.77	97.85	2.15
230	4.00	0.063	94.81	98.94	1.06
PAN			95.82	99.99	0.01

PHI(5): 1.05 PHI(16): 1.63 PHI(25): 1.84
 PHI(50): 2.27 PHI(75): 2.69 PHI(84): 2.85
 PHI(95): 3.25

SIEVE LOSS(g): 0.01 SILT/CLAY: 2.15%
 SKEWNESS: -0.196 KURTOSIS: 1.059

GRAPHIC METHOD

MEAN (PHI): 2.21 SORTING: 0.61
 MEAN (mm) : 0.22 MEDIAN (mm): 0.21
 NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.20 SORTING: 0.70
 MEAN (mm) : 0.22

DATA FILE NAME: DB99-22#4.TAB

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

SAMPLE NO.: DB99-22#5
 SAMPLE ELEV. (FT. NGVD):
 SAMPLE DEPTH (FT.): 16.0
 SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP-SM

DRY SAMPLE WEIGHT (GRAMS): 105.84
 SAMPLE WEIGHT AFTER WASH (GRAMS): 97.27

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	0.16	0.15	99.85
7	-1.50	2.800	0.28	0.26	99.74
10	-1.00	2.000	0.59	0.56	99.44
14	-0.50	1.400	0.86	0.81	99.19
18	0.00	1.000	1.26	1.19	98.81
25	0.50	0.710	2.22	2.10	97.90
35	1.00	0.500	4.71	4.45	95.55
45	1.50	0.355	10.49	9.91	90.09
60	2.00	0.250	29.90	28.25	71.75
80	2.50	0.180	62.32	58.88	41.12
120	3.00	0.125	92.16	87.07	12.93
170	3.50	0.090	97.07	91.71	8.29
200	3.75	0.075	97.18	91.82	8.18
230	4.00	0.063	101.51	95.90	4.10
PAN			105.82	99.98	0.02

PHI (5): 1.05 PHI (16): 1.67 PHI (25): 1.91
 PHI (50): 2.36 PHI (75): 2.79 PHI (84): 2.95
 PHI (95): 3.94

SIEVE LOSS(g): 0.02 SILT/CLAY: 8.18%
 SKEWNESS: 0.223 KURTOSIS: 1.356

GRAPHIC METHOD

MEAN (PHI): 2.39 SORTING: 0.64
 MEAN (mm): 0.19 MEDIAN (mm): 0.20

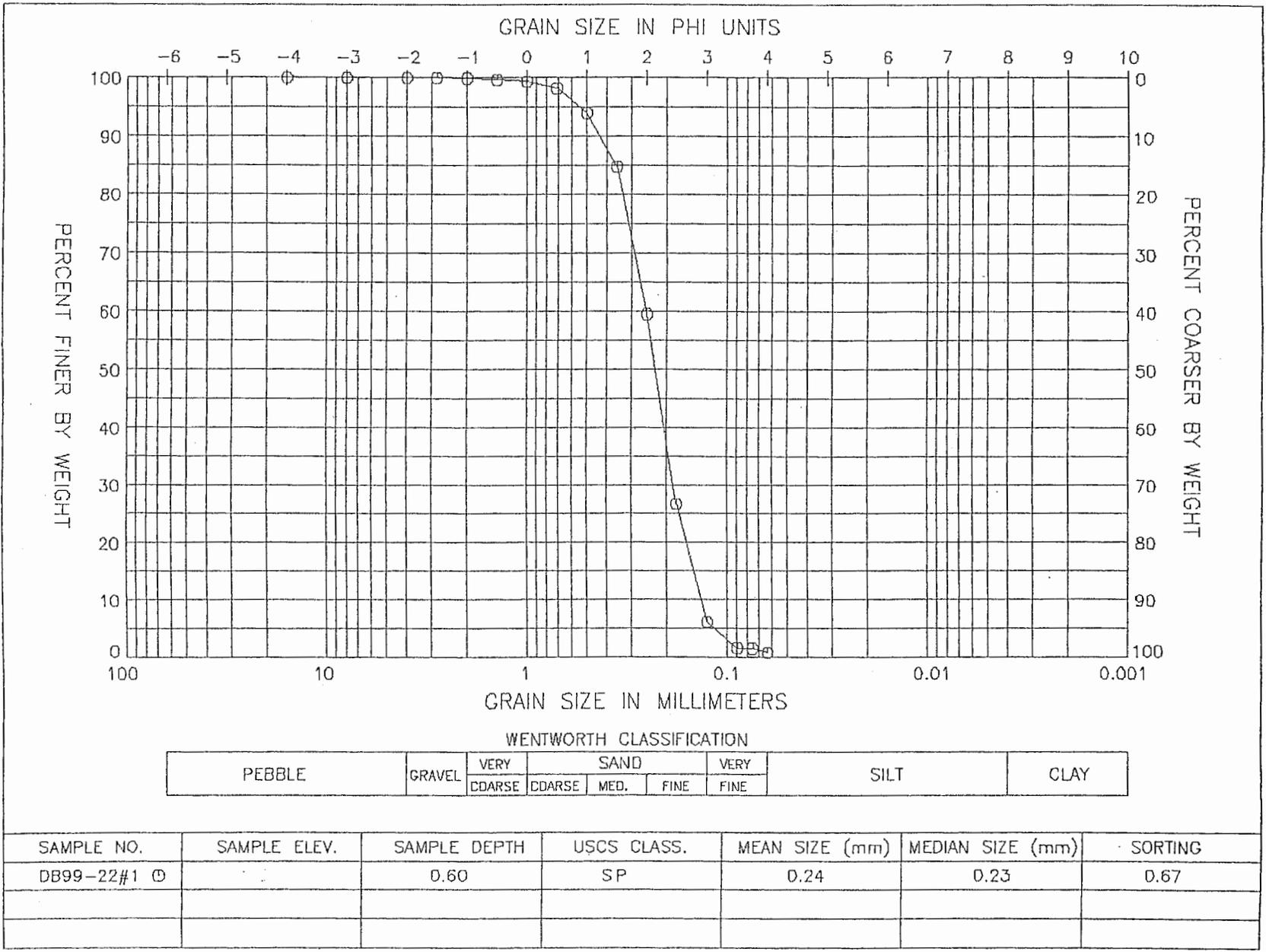
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

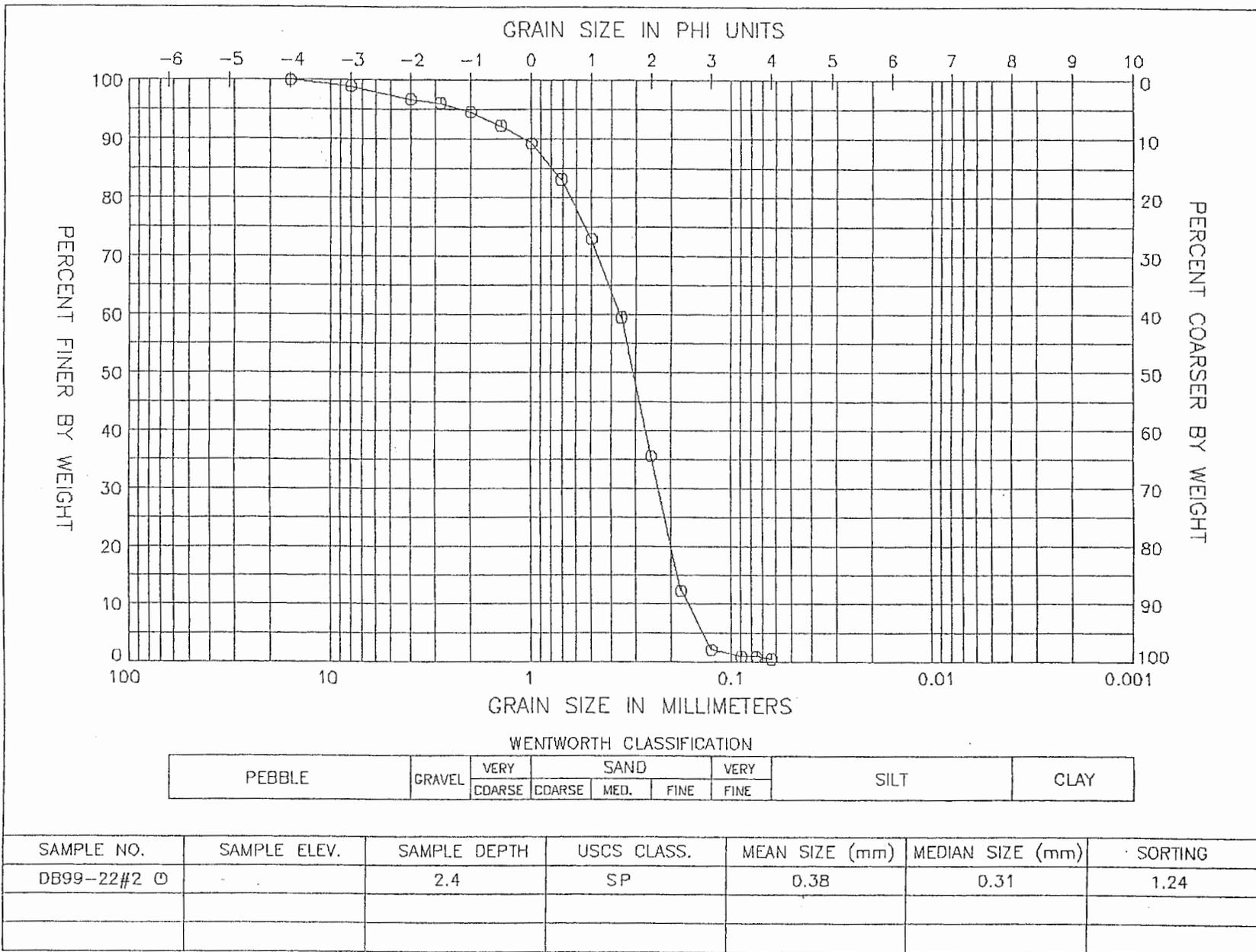
MEAN (PHI): 2.27 SORTING: 0.76
 MEAN (mm): 0.21

DATA FILE NAME: DB99-22#5.TAB

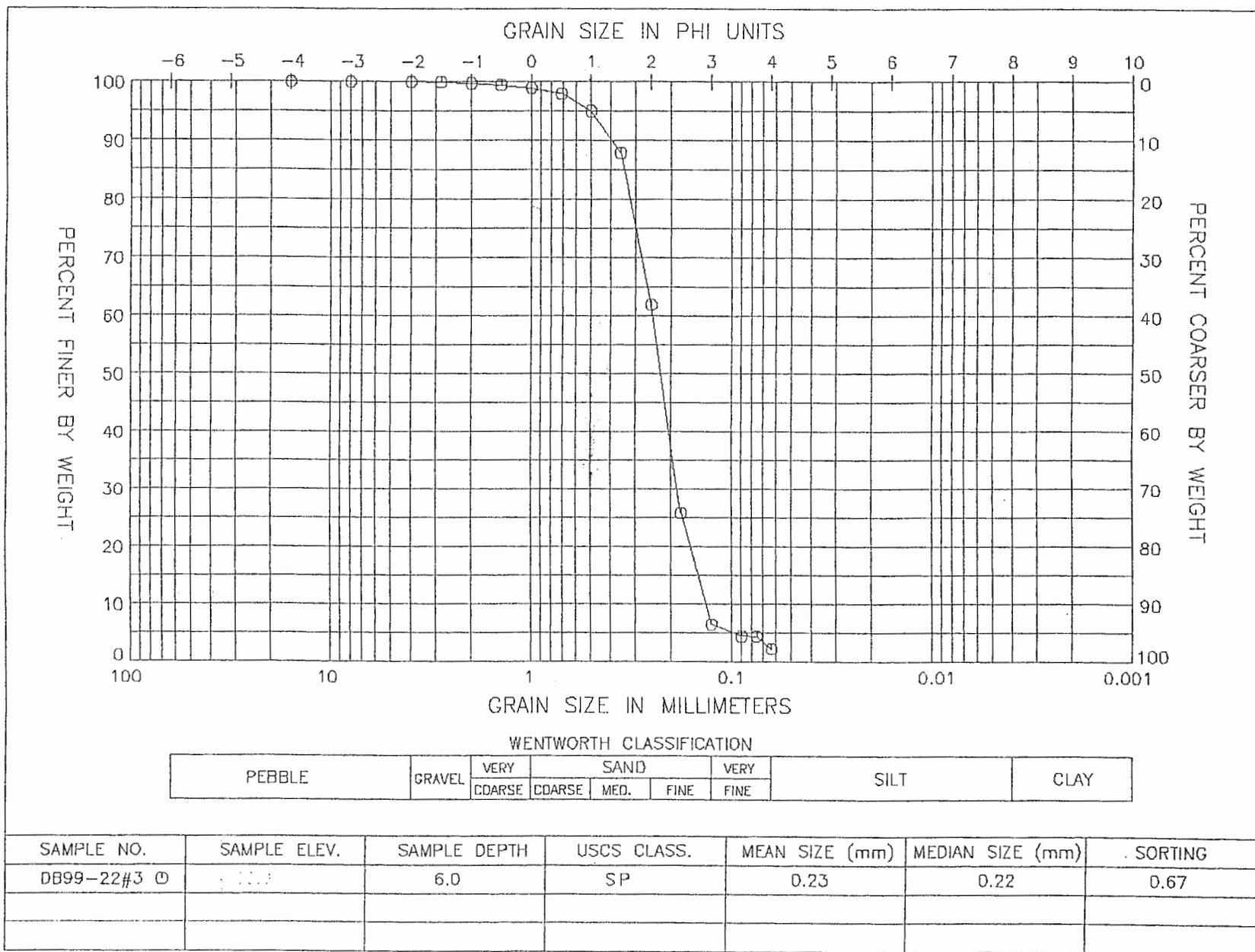
GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



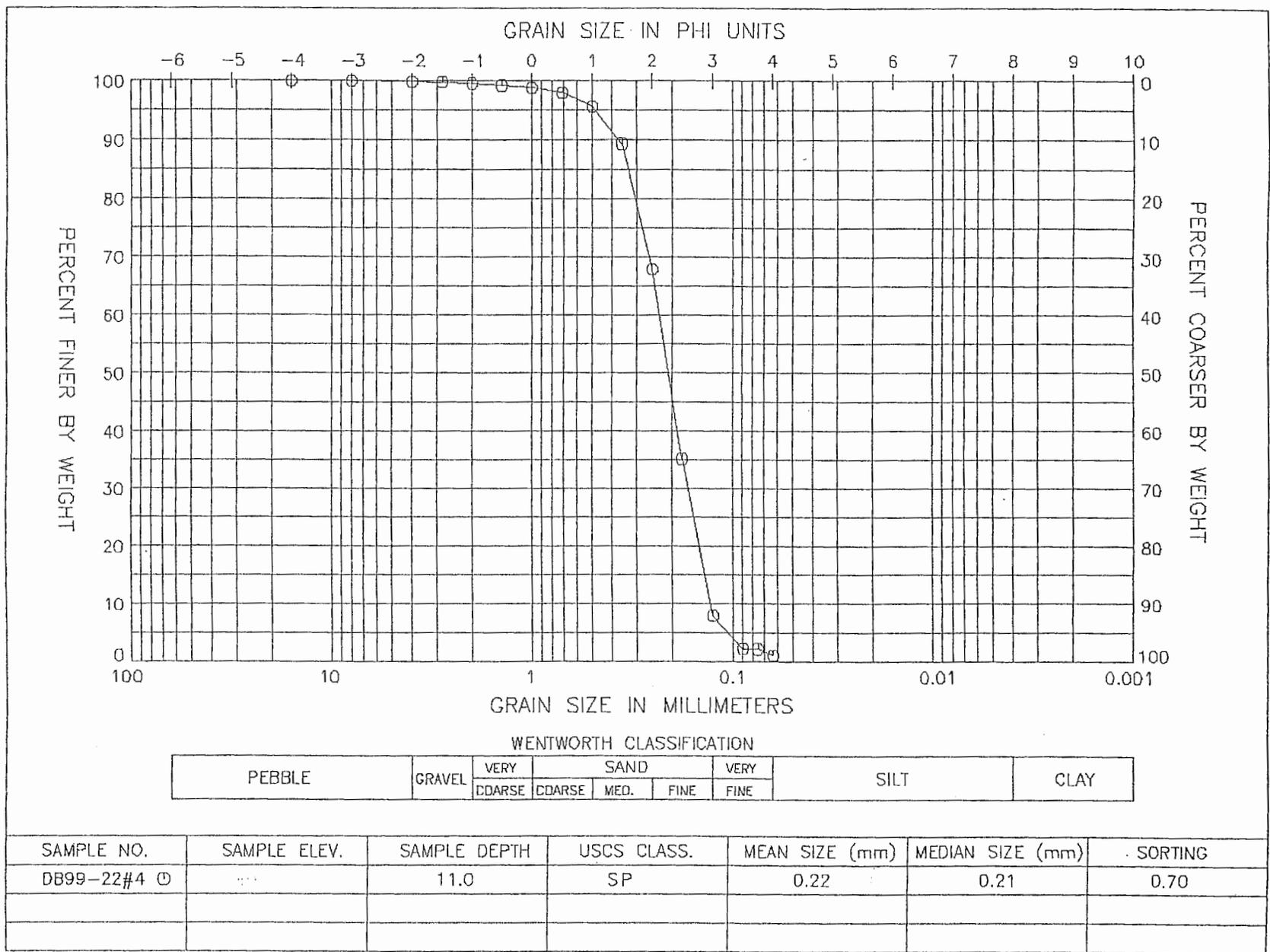
GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
DELRAY BEACH VIBRACORES 1999

