

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= 966,597 Y= 773,815		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-99-6		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		-36.5 ft.	
9. TOTAL DEPTH OF HOLE		18.2' FT		18. TOTAL CORE RECOVERY FOR BORING		90%	
				19. SIGNATURE OF GEOLOGIST		IBRAHIM DREMAI	
ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS	
-36.5	0					SP	
	1				1	Sample #1, Depth = 1.0' 0.25 mm, 0.99 phi sorting 1.77% silt	
	2				2	Sample #2, Depth = 2.0' 0.39 mm, 1.06 phi sorting 1.25% silt	
	3				3	Sample #3, Depth = 4.0' 0.27 mm, 0.73 phi sorting 0.96% silt	
-41.5	5						
	6				4	Sample #4, Depth= 6.0' 0.27 mm, 0.92 phi sorting 0.92% silt	
	7						
	8						
	9						
	10				5	Sample #5, Depth = 12.0' 0.22 mm, 0.63 phi sorting 1.96% silt	
	11						
	12						
-50.9	14						
-51.5	15						
	16				6	Sample #6, Depth = 14.6' 0.33 mm, 0.94 phi sorting 1.75% silt	
	17						
-54.7	18						
	19						
	20						
	21						
	22						
	23						
	24						
			End of Boring				
						Note: Soils are classified in accordance with the Unified Soils Classification System.	

PROJECT: Delray Beach

HOLE NUMBER:

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

SAMPLE NO.: DB99-6 S#1
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 1.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 187.41
SAMPLE WEIGHT AFTER WASH (GRAMS): 184.27

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	0.45	0.24	99.76
7	-1.50	2.800	1.01	0.54	99.46
10	-1.00	2.000	3.16	1.69	98.31
14	-0.50	1.400	6.00	3.20	96.80
18	0.00	1.000	10.24	5.46	94.54
25	0.50	0.710	16.66	8.89	91.11
35	1.00	0.500	28.80	15.37	84.63
45	1.50	0.355	42.62	22.74	77.26
60	2.00	0.250	70.26	37.49	62.51
80	2.50	0.180	123.01	65.64	34.36
120	3.00	0.125	174.89	93.32	6.68
170	3.50	0.090	183.99	98.18	1.82
200	3.75	0.075	184.09	98.23	1.77
230	4.00	0.063	185.80	99.14	0.86
PAN			187.37	99.98	0.02

PHI(5): -0.10 PHI(16): 1.04 PHI(25): 1.58
PHI(50): 2.22 PHI(75): 2.67 PHI(84): 2.83
PHI(95): 3.17

SIEVE LOSS(g): 0.04 SILT/CLAY: 1.77%
SKEWNESS: -0.768 KURTOSIS: 1.229

GRAPHIC METHOD

MEAN (PHI): 1.83 SORTING: 0.89
MEAN (mm): 0.28 MEDIAN (mm): 0.21
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.97 SORTING: 0.99
MEAN (mm): 0.25

DATA FILE NAME: DB99-6#1.TAB

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

SAMPLE NO.: DB99-6 S#2
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 2.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 170.07
SAMPLE WEIGHT AFTER WASH (GRAMS): 168.08

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	0.67	0.39	99.61
7	-1.50	2.800	1.93	1.13	98.87
10	-1.00	2.000	5.57	3.28	96.72
14	-0.50	1.400	11.21	6.59	93.41
18	0.00	1.000	19.26	11.32	88.68
25	0.50	0.710	32.81	19.29	80.71
35	1.00	0.500	54.61	32.11	67.89
45	1.50	0.355	80.13	47.12	52.88
60	2.00	0.250	119.23	70.11	29.89
80	2.50	0.180	153.17	90.06	9.94
120	3.00	0.125	166.17	97.71	2.29
170	3.50	0.090	167.90	98.72	1.28
200	3.75	0.075	167.95	98.75	1.25
230	4.00	0.063	169.04	99.39	0.61
PAN			170.03	99.98	0.02

PHI(5): -0.74 PHI(16): 0.29 PHI(25): 0.72
PHI(50): 1.56 PHI(75): 2.12 PHI(84): 2.35
PHI(95): 2.82

SIEVE LOSS(g): 0.04 SILT/CLAY: 1.25%
SKEWNESS: -0.507 KURTOSIS: 1.043

GRAPHIC METHOD

MEAN (PHI): 1.26 SORTING: 1.03
MEAN (mm): 0.42 MEDIAN (mm): 0.34
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.35 SORTING: 1.06
MEAN (mm): 0.39

DATA FILE NAME: DB99-6#2.TAB

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

SAMPLE NO.: DB99-6 S#3
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 4.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 171.44
SAMPLE WEIGHT AFTER WASH (GRAMS): 169.89

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	0.04	0.02	99.98
7	-1.50	2.800	0.35	0.20	99.80
10	-1.00	2.000	0.76	0.44	99.56
14	-0.50	1.400	1.55	0.90	99.10
18	0.00	1.000	2.92	1.70	98.30
25	0.50	0.710	6.45	3.76	96.24
35	1.00	0.500	17.06	9.95	90.05
45	1.50	0.355	37.50	21.87	78.13
60	2.00	0.250	85.48	49.86	50.14
80	2.50	0.180	139.83	81.56	18.44
120	3.00	0.125	165.27	96.40	3.60
170	3.50	0.090	169.71	98.99	1.01
200	3.75	0.075	169.80	99.04	0.96
230	4.00	0.063	170.60	99.51	0.49
PAN			171.41	99.98	0.02

PHI(5): 0.60	PHI(16): 1.25	PHI(25): 1.56
PHI(50): 2.00	PHI(75): 2.40	PHI(84): 2.58
PHI(95): 2.95		

SIEVE LOSS(g): 0.03	SILT/CLAY: 0.96%
SKEWNESS: -0.340	KURTOSIS: 1.147

GRAPHIC METHOD

MEAN (PHI): 1.88	SORTING: 0.66
MEAN (mm) : 0.27	MEDIAN (mm): 0.25

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.91	SORTING: 0.73
MEAN (mm) : 0.27	

DATA FILE NAME: DB99-6#3.TAB

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

SAMPLE NO.: DB99-6 S#4
SAMPLE ELEV. (FT. NGVD):
SAMPLE DEPTH (FT.): 6.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 187.86
SAMPLE WEIGHT AFTER WASH (GRAMS): 186.24

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	0.70	0.37	99.63
5	-2.00	4.000	1.45	0.77	99.23
7	-1.50	2.800	2.37	1.26	98.74
10	-1.00	2.000	3.67	1.95	98.05
14	-0.50	1.400	5.28	2.81	97.19
18	0.00	1.000	7.27	3.87	96.13
25	0.50	0.710	10.80	5.75	94.25
35	1.00	0.500	21.31	11.34	88.66
45	1.50	0.355	39.55	21.05	78.95
60	2.00	0.250	84.72	45.10	54.90
80	2.50	0.180	144.58	76.96	23.04
120	3.00	0.125	181.01	96.35	3.65
170	3.50	0.090	186.07	99.05	0.95
200	3.75	0.075	186.13	99.08	0.92
230	4.00	0.063	187.05	99.57	0.43
PAN			187.86	100.00	0.00

PHI(5): 0.30 PHI(16): 1.24 PHI(25): 1.58
PHI(50): 2.08 PHI(75): 2.47 PHI(84): 2.68
PHI(95): 2.97

SIEVE LOSS(g): 0.00 SILT/CLAY: 0.92%
SKEWNESS: -0.616 KURTOSIS: 1.231

GRAPHIC METHOD

MEAN (PHI): 1.85 SORTING: 0.72
MEAN (mm): 0.28 MEDIAN (mm): 0.24
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.91 SORTING: 0.92
MEAN (mm): 0.27

DATA FILE NAME: DB99-6#4.TAB

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

SAMPLE NO.: DB99-6 S#4
SAMPLE ELEV. (FT. NGVD): .
SAMPLE DEPTH (FT.): 12.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 185.69
SAMPLE WEIGHT AFTER WASH (GRAMS): 182.17

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	0.08	0.04	99.96
10	-1.00	2.000	0.33	0.18	99.82
14	-0.50	1.400	0.70	0.38	99.62
18	0.00	1.000	1.18	0.64	99.36
25	0.50	0.710	2.45	1.32	98.68
35	1.00	0.500	7.56	4.07	95.93
45	1.50	0.355	20.31	10.94	89.06
60	2.00	0.250	63.60	34.25	65.75
80	2.50	0.180	131.21	70.66	29.34
120	3.00	0.125	173.84	93.62	6.38
170	3.50	0.090	181.83	97.92	2.08
200	3.75	0.075	182.05	98.04	1.96
230	4.00	0.063	183.89	99.03	0.97
PAN			185.68	99.99	0.01

PHI(5): 1.07 PHI(16): 1.61 PHI(25): 1.80
PHI(50): 2.22 PHI(75): 2.59 PHI(84): 2.79
PHI(95): 3.16

SIEVE LOSS(g): 0.01 SILT/CLAY: 1.96%
SKEWNESS: -0.173 KURTOSIS: 1.082

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): 2.17 SORTING: 0.63
MEAN (mm): 0.22

DATA FILE NAME: DB99-6#5.TAB

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

SAMPLE NO.: DB99-6 S#6
SAMPLE ELEV. (FT. NGVD): -
SAMPLE DEPTH (FT.): 14.6
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 220.83
SAMPLE WEIGHT AFTER WASH (GRAMS): 217.05

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	0.26	0.12	99.88
7	-1.50	2.800	1.83	0.83	99.17
10	-1.00	2.000	4.03	1.82	98.18
14	-0.50	1.400	7.66	3.47	96.53
18	0.00	1.000	13.49	6.11	93.89
25	0.50	0.710	22.95	10.39	89.61
35	1.00	0.500	44.51	20.16	79.84
45	1.50	0.355	81.75	37.02	62.98
60	2.00	0.250	138.33	62.64	37.36
80	2.50	0.180	187.21	84.78	15.22
120	3.00	0.125	213.87	96.85	3.15
170	3.50	0.090	216.84	98.19	1.81
200	3.75	0.075	216.96	98.25	1.75
230	4.00	0.063	218.89	99.12	0.88
PAN			220.82	100.00	0.00

PHI(5): -0.21 PHI(16): 0.79 PHI(25): 1.14
PHI(50): 1.75 PHI(75): 2.28 PHI(84): 2.48
PHI(95): 2.92

SIEVE LOSS(g): 0.01 SILT/CLAY: 1.75%
SKEWNESS: -0.468 KURTOSIS: 1.131

GRAPHIC METHOD

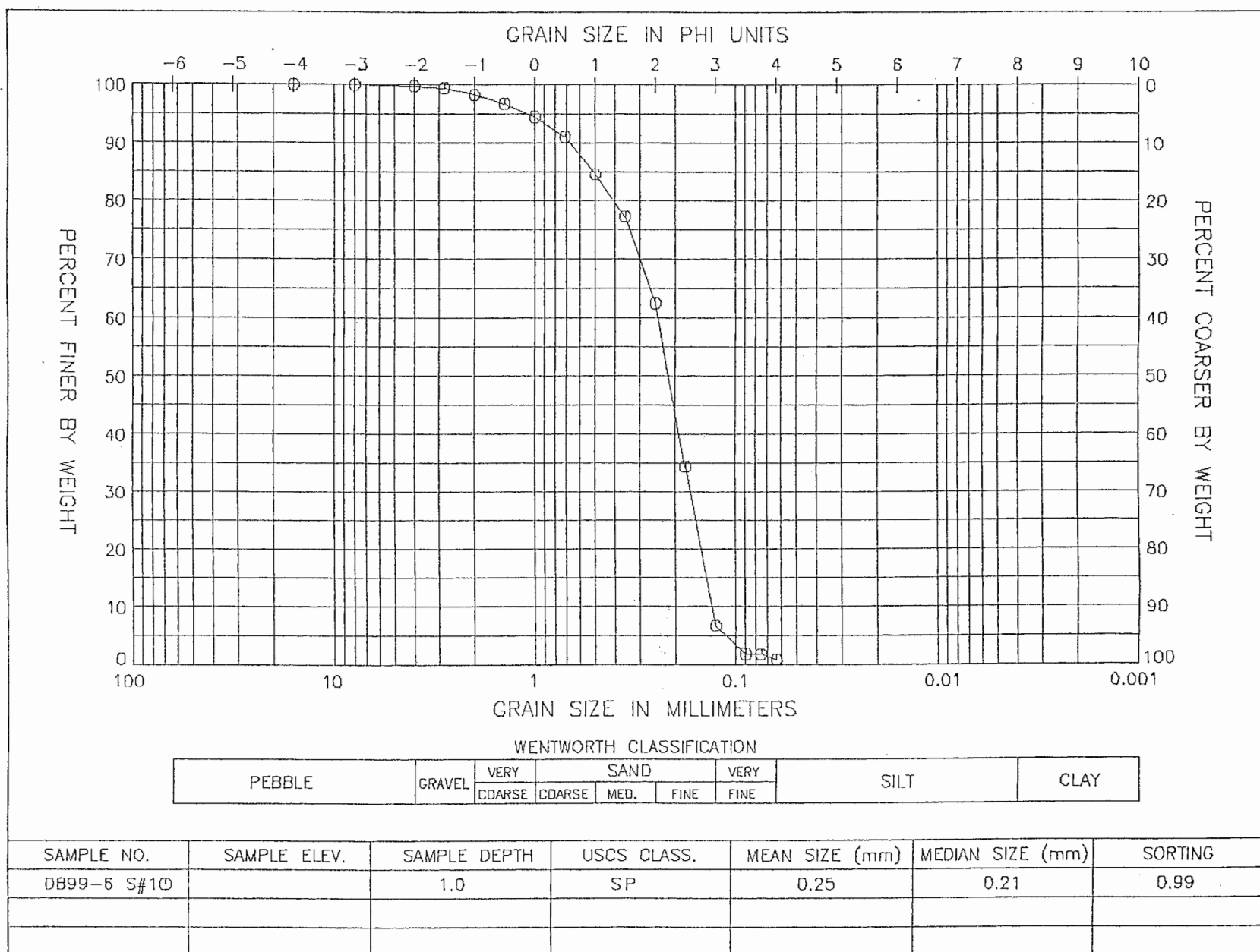
MEAN (PHI): 1.55 SORTING: 0.85
MEAN (mm): 0.34 MEDIAN (mm): 0.30
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

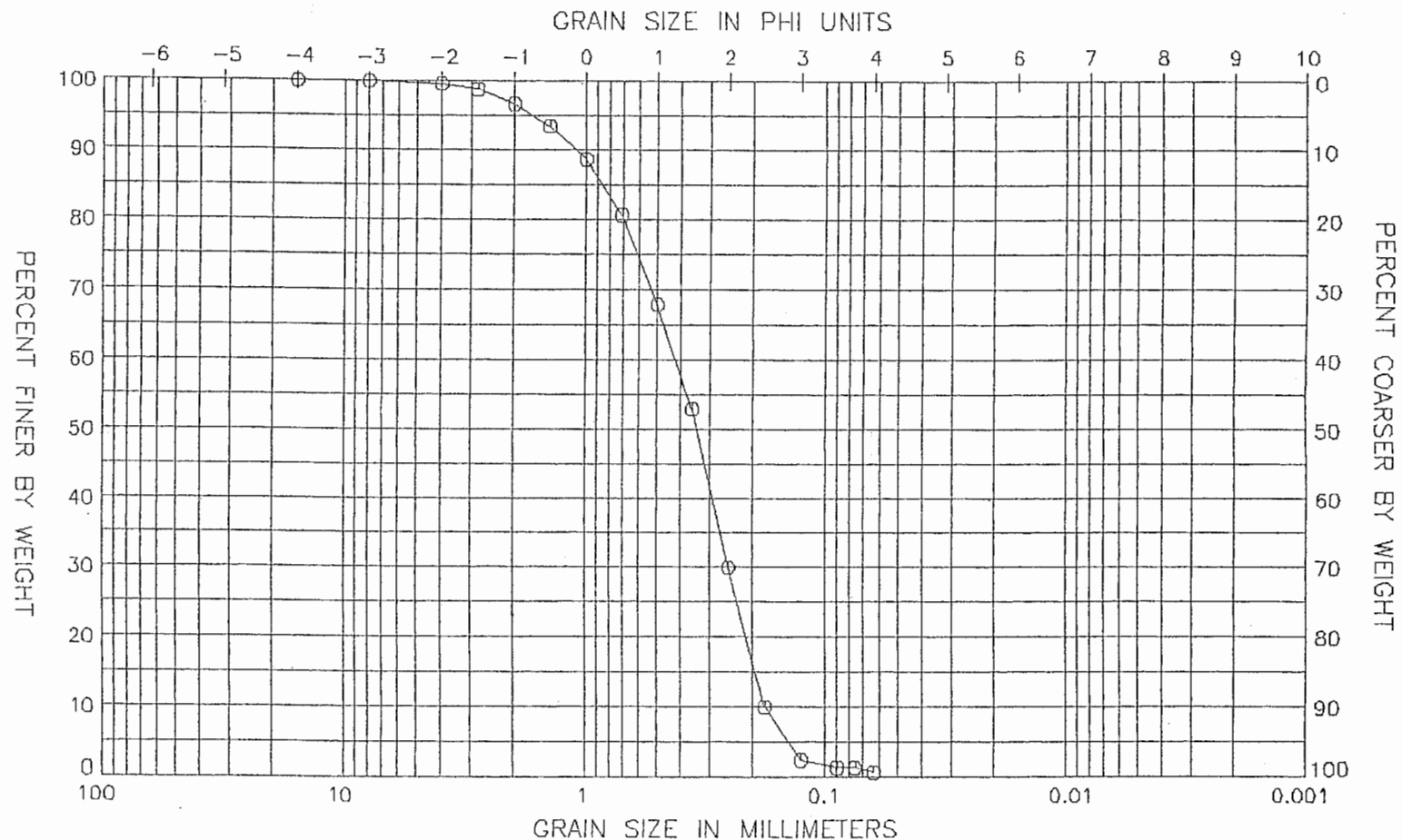
MEAN (PHI): 1.62 SORTING: 0.94
MEAN (mm): 0.33

DATA FILE NAME: DB99-6#6.TAB

GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999

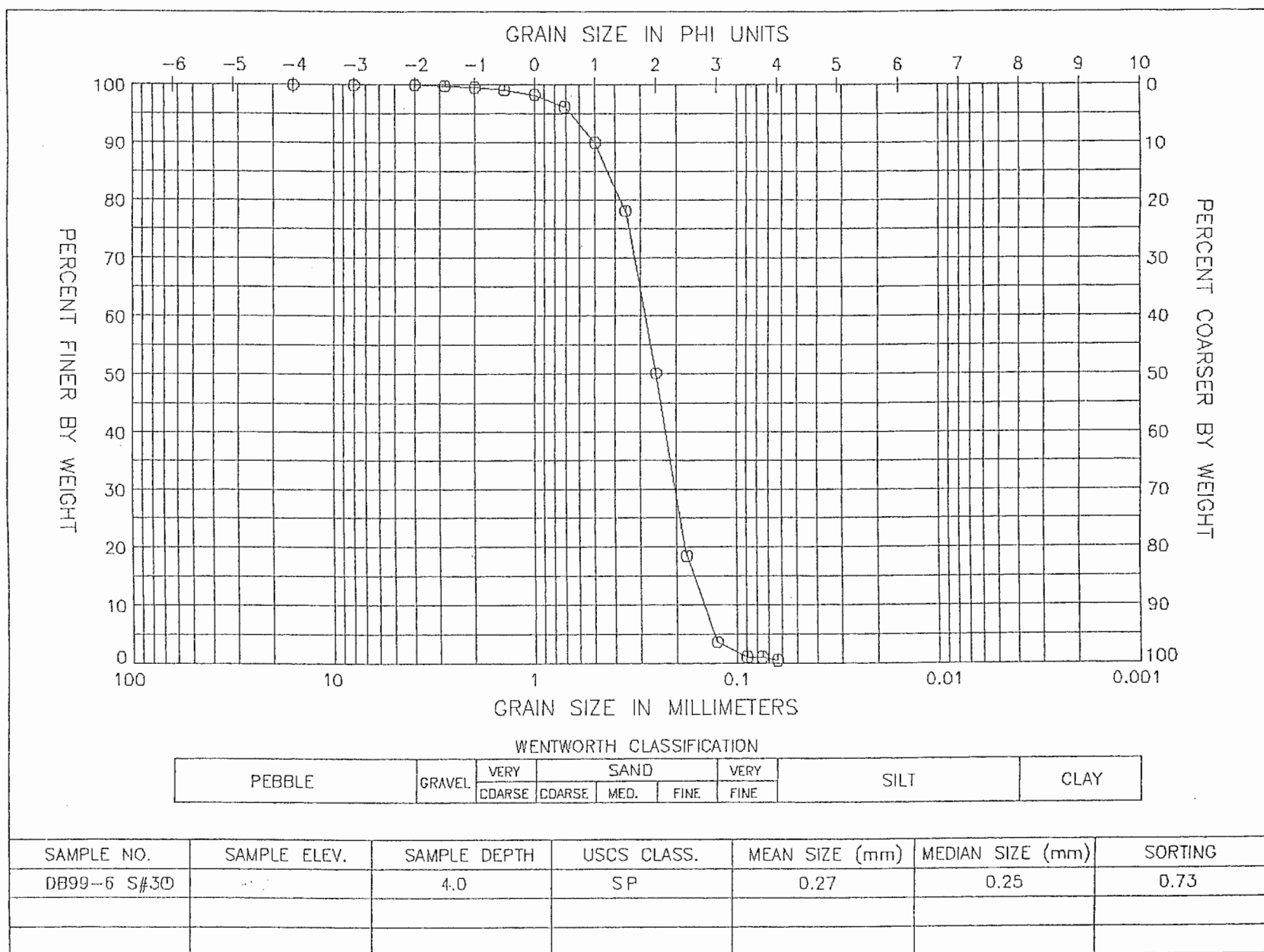


WENTWORTH CLASSIFICATION

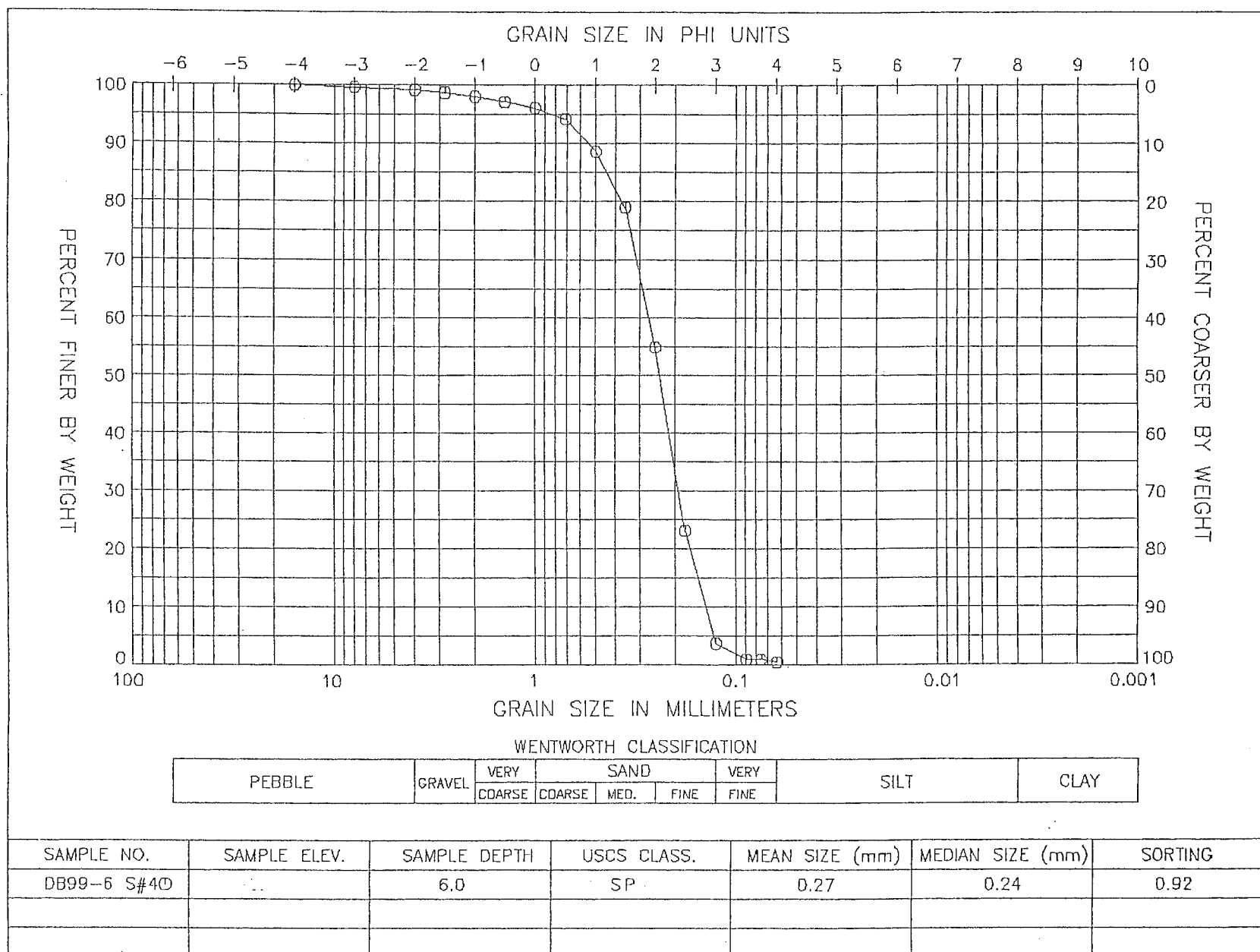
PEBBLE	GRAVEL	VERY	SAND			VERY	SILT	CLAY
		COARSE	COARSE	MED.	FINE	FINE		

SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
DB99-6 S#20	...	2.0	SP	0.39	0.34	1.06

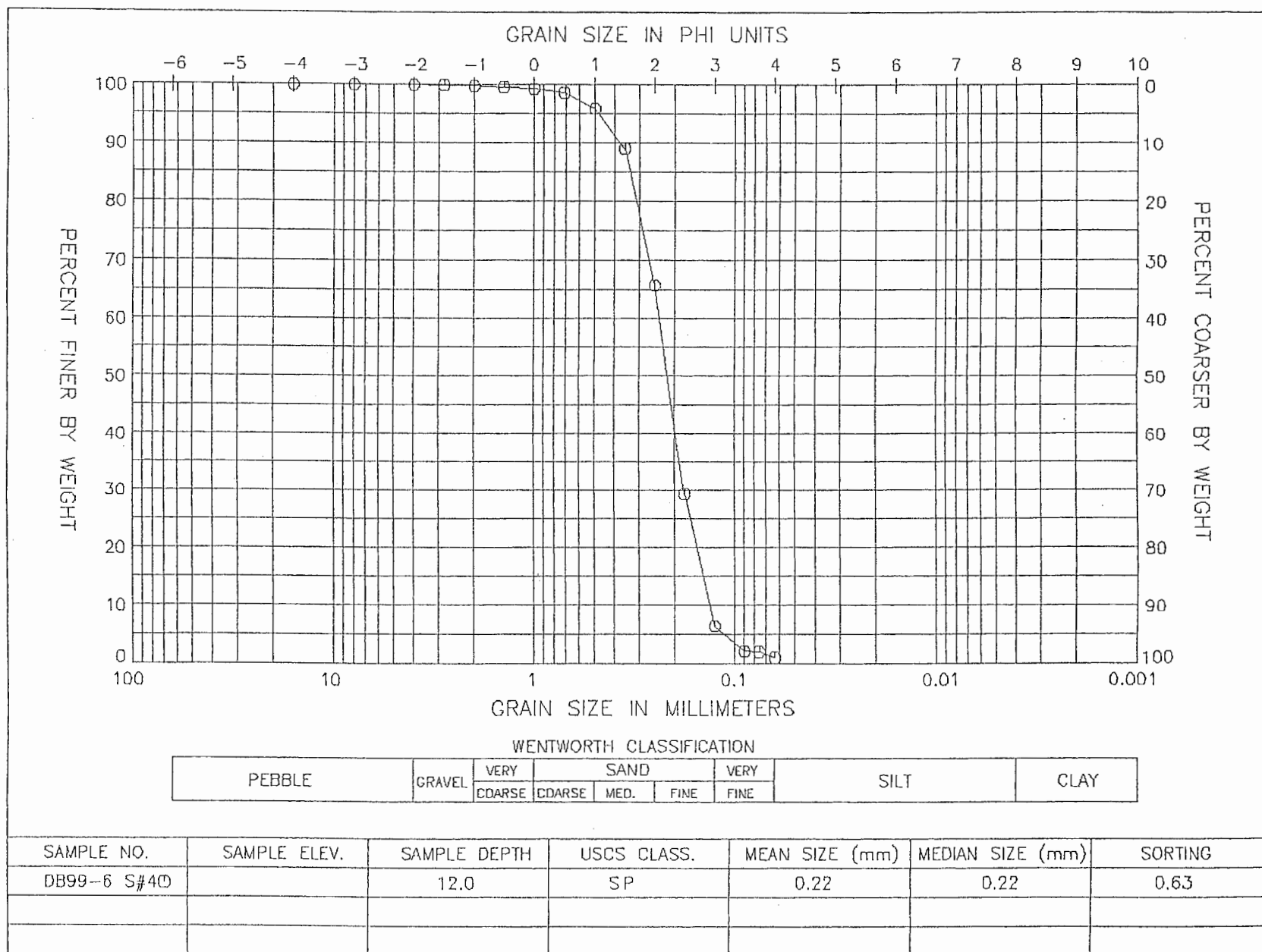
GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE
 DELRAY BEACH VIBRACORES 1999

