

<b>DRILLING LOG</b>		<b>DIVISION:</b> South Atlantic	<b>INSTALLATION:</b> Jacksonville District	<b>SHEET</b> 1 of 1
<b>1. PROJECT</b>		DELRAY BEACH		
<b>2. LOCATION</b> (Coordinates or Station)		X= 9681778 Y= 778679		
<b>3. DRILLING AGENCY:</b>		ALPINE SEISMIC		
<b>4. HOLE NO.</b> (As shown on drawing title and file number)		DB-99-16		
<b>6. NAME OF DRILLER</b>		ROB SUSKO		
<b>6. DIRECTION OF HOLE</b>		VERTICAL		
<b>7. THICKNESS OF BURDEN</b>		0.0 FT		
<b>8. DEPTH DRILLED INTO ROCK</b>		0.0 FT		
<b>9. TOTAL DEPTH OF HOLE</b>		18.3' FT		
<b>10. SIZE AND TYPE OF BIT</b>		3"		
<b>11. DATUM FOR ELEVATION SHOWN</b> (TBM or MSL)		NGVD		
<b>12. MANUFACTURER'S DESIGNATION OF DRILL</b>		ALPINE PNEUMATIC		
<b>13. TOT NO. OF OVERBURDEN SAMPLES TAKEN</b>		disturbed: 0.0 undisturbed: 0.0		
<b>14. TOTAL NO. OF CORE BOXES</b>		1		
<b>15. ELEVATION GROUND WATER</b>				
<b>16. DATE HOLE</b>		Started	Completed	
		4/20/99	4/20/99	
<b>17. ELEVATION TOP OF HOLE</b>		-55 ft.		
<b>18. TOTAL CORE RECOVERY FOR BORING</b>		96%		
<b>19. SIGNATURE OF GEOLOGIST</b>		IBRAHIM DREMLI		

ELEV.	DEPTH	LEGEND	CLASSIFICATION OF MATERIALS (Description)	CORE REC %	SAMPLE NUMBER	REMARKS
-55	0					SP
	1				1	Sample #1, Depth = 2.0' 0.16 mm, 0.46 phi sorting 1.42% silt
	2					
	3					
	4					
	5				2	Sample #2, Depth = 6.0' 0.16 mm, 0.49 phi sorting 1.42% silt
	6					
	7					
	8		SAND, fine grained, trace shell hash, <1" whole shell at -64.3', Gray (5Y-6/1) (SP)			
	9				3	Sample #3, Depth = 10.0' 0.12 mm, 0.57 phi sorting 2.0% silt
	10					
	11					
	12					
	13				4	Sample #4, Depth = 14.0' 0.16 mm, 0.59 phi sorting 2.52% silt
	14					
	15					
-71	16					
	17		fine-grained, trace shell hash, Light Gray (5Y-7/1) (SP) from -71.0' to -73.3'		5	Sample #5, Depth = 17.0' 0.18 mm, 0.66 phi sorting 2.11% silt
-73.3	18					
	19		End of Boring			
	20					
	21					
	22					
	23					
	24					
						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.: DB99-16 S#1  
SAMPLE ELEV. (FT. NGVD):  
SAMPLE DEPTH (FT.): 2.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 219.99  
SAMPLE WEIGHT AFTER WASH (GRAMS): 217.08

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	0.07	0.03	99.97
7	-1.50	2.800	0.09	0.04	99.96
10	-1.00	2.000	0.17	0.08	99.92
14	-0.50	1.400	0.28	0.13	99.87
18	0.00	1.000	0.57	0.26	99.74
25	0.50	0.710	0.97	0.44	99.56
35	1.00	0.500	1.83	0.83	99.17
45	1.50	0.355	3.81	1.73	98.27
60	2.00	0.250	12.39	5.63	94.37
80	2.50	0.180	55.18	25.08	74.92
120	3.00	0.125	183.89	83.59	16.41
170	3.50	0.090	216.39	98.36	1.64
200	3.75	0.075	216.86	98.58	1.42
230	4.00	0.063	218.40	99.27	0.73
PAN			219.97	99.99	0.01

PHI(5): 1.92 PHI(16): 2.27 PHI(25): 2.50  
PHI(50): 2.71 PHI(75): 2.93 PHI(84): 3.01  
PHI(95): 3.39

SIEVE LOSS(g): 0.02 SILT/CLAY: 1.42%  
SKEWNESS: -0.162 KURTOSIS: 1.403

GRAPHIC METHOD

MEAN (PHI): 2.66 SORTING: 0.37  
MEAN (mm): 0.16 MEDIAN (mm): 0.15  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.66 SORTING: 0.46  
MEAN (mm): 0.16

DATA FILE NAME: DB99-16#1.TAB

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

SAMPLE NO.: DB99-16 S#2  
SAMPLE ELEV. (FT. NGVD):  
SAMPLE DEPTH (FT.): 6.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 181.49  
SAMPLE WEIGHT AFTER WASH (GRAMS): 179.12

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	0.19	0.10	99.90
10	-1.00	2.000	0.31	0.17	99.83
14	-0.50	1.400	0.50	0.28	99.72
18	0.00	1.000	0.70	0.39	99.61
25	0.50	0.710	1.06	0.58	99.42
35	1.00	0.500	1.89	1.04	98.96
45	1.50	0.355	3.42	1.88	98.12
60	2.00	0.250	11.15	6.14	93.86
80	2.50	0.180	53.30	29.37	70.63
120	3.00	0.125	150.78	83.08	16.92
170	3.50	0.090	178.69	98.46	1.54
200	3.75	0.075	178.91	98.58	1.42
230	4.00	0.063	180.20	99.29	0.71
PAN			181.48	99.99	0.01

PHI(5): 1.87 PHI(16): 2.21 PHI(25): 2.41  
PHI(50): 2.69 PHI(75): 2.92 PHI(84): 3.03  
PHI(95): 3.39

SIEVE LOSS(g): 0.01 SILT/CLAY: 1.42%  
SKEWNESS: -0.160 KURTOSIS: 1.202

GRAPHIC METHOD

MEAN (PHI): 2.64 SORTING: 0.41  
MEAN (mm) : 0.16 MEDIAN (mm): 0.15

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.64 SORTING: 0.49  
MEAN (mm) : 0.16

DATA FILE NAME: DB99-16#2.TAB

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

SAMPLE NO.: DB99-16 S#3  
SAMPLE ELEV. (FT. NGVD):  
SAMPLE DEPTH (FT.): 10.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 156.13  
SAMPLE WEIGHT AFTER WASH (GRAMS): 153.41

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	0.01	0.01	99.99
7	-1.50	2.800	0.03	0.02	99.98
10	-1.00	2.000	0.26	0.17	99.83
14	-0.50	1.400	0.51	0.33	99.67
18	0.00	1.000	0.83	0.53	99.47
25	0.50	0.710	1.21	0.77	99.23
35	1.00	0.500	1.85	1.18	98.82
45	1.50	0.355	3.36	2.15	97.85
60	2.00	0.250	9.11	5.83	94.17
80	2.50	0.180	25.27	16.19	83.81
120	3.00	0.125	26.04	16.68	83.32
170	3.50	0.090	152.46	97.65	2.35
200	3.75	0.075	153.00	98.00	2.00
230	4.00	0.063	154.59	99.01	0.99
PAN			156.10	99.98	0.02

PHI(5): 1.89 PHI(16): 2.49 PHI(25): 3.05  
PHI(50): 3.21 PHI(75): 3.36 PHI(84): 3.42  
PHI(95): 3.48

SIEVE LOSS(g): 0.03 SILT/CLAY: 2.00%  
SKEWNESS: -1.126 KURTOSIS: 2.120

GRAPHIC METHOD

MEAN (PHI): 2.90 SORTING: 0.46  
MEAN (mm): 0.13 MEDIAN (mm): 0.11  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 3.04 SORTING: 0.57  
MEAN (mm): 0.12

DATA FILE NAME: DB99-16#3.TAB

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

SAMPLE NO.: DB99-16 S#4  
SAMPLE ELEV. (FT. NGVD):  
SAMPLE DEPTH (FT.): 14.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 174.32  
SAMPLE WEIGHT AFTER WASH (GRAMS): 170.88

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	0.15	0.09	99.91
10	-1.00	2.000	0.35	0.20	99.80
14	-0.50	1.400	0.67	0.38	99.62
18	0.00	1.000	1.08	0.62	99.38
25	0.50	0.710	1.79	1.03	98.97
35	1.00	0.500	3.26	1.87	98.13
45	1.50	0.355	5.94	3.41	96.59
60	2.00	0.250	16.00	9.18	90.82
80	2.50	0.180	47.35	27.16	72.84
120	3.00	0.125	131.22	75.28	24.72
170	3.50	0.090	169.18	97.05	2.95
200	3.75	0.075	169.92	97.48	2.52
230	4.00	0.063	171.98	98.66	1.34
PAN			174.32	100.00	0.00

PHI(5): 1.64	PHI(16): 2.19	PHI(25): 2.44
PHI(50): 2.74	PHI(75): 3.00	PHI(84): 3.20
PHI(95): 3.45		

SIEVE LOSS(g): 0.00	SILT/CLAY: 2.52%
SKEWNESS: -0.380	KURTOSIS: 1.335

GRAPHIC METHOD

MEAN (PHI): 2.64	SORTING: 0.51
MEAN (mm) : 0.16	MEDIAN (mm): 0.15
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD	

MOMENT METHOD

MEAN (PHI): 2.65	SORTING: 0.59
MEAN (mm) : 0.16	

DATA FILE NAME: DB99-16#4.TAB

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

SAMPLE NO.: DB99-16 S#5  
SAMPLE ELEV. (FT. NGVD):  
SAMPLE DEPTH (FT.): 17.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 181.07  
SAMPLE WEIGHT AFTER WASH (GRAMS): 177.96

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	0.08	0.04	99.96
7	-1.50	2.800	0.26	0.14	99.86
10	-1.00	2.000	0.77	0.43	99.57
14	-0.50	1.400	1.39	0.77	99.23
18	0.00	1.000	2.20	1.21	98.79
25	0.50	0.710	3.30	1.82	98.18
35	1.00	0.500	5.43	3.00	97.00
45	1.50	0.355	10.42	5.75	94.25
60	2.00	0.250	27.14	14.99	85.01
80	2.50	0.180	70.42	38.89	61.11
120	3.00	0.125	156.38	86.36	13.64
170	3.50	0.090	176.76	97.62	2.38
200	3.75	0.075	177.25	97.89	2.11
230	4.00	0.063	179.02	98.87	1.13
PAN			181.05	99.99	0.01

PHI(5): 1.36 PHI(16): 2.02 PHI(25): 2.21  
PHI(50): 2.62 PHI(75): 2.88 PHI(84): 2.98  
PHI(95): 3.38

SIEVE LOSS(g): 0.02 SILT/CLAY: 2.11%  
SKEWNESS: -0.511 KURTOSIS: 1.234

GRAPHIC METHOD

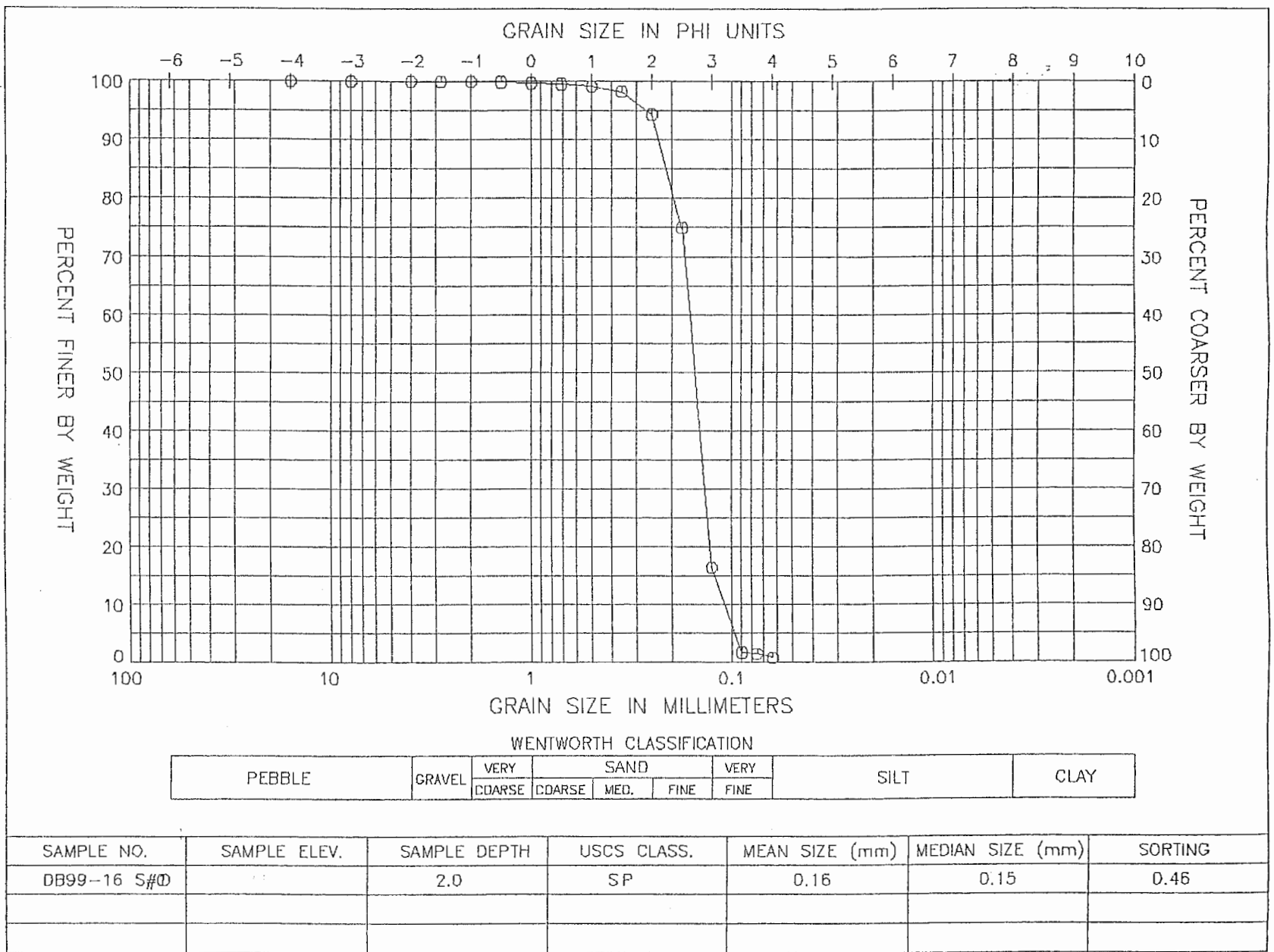
MEAN (PHI): 2.47 SORTING: 0.48  
MEAN (mm): 0.18 MEDIAN (mm): 0.16  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

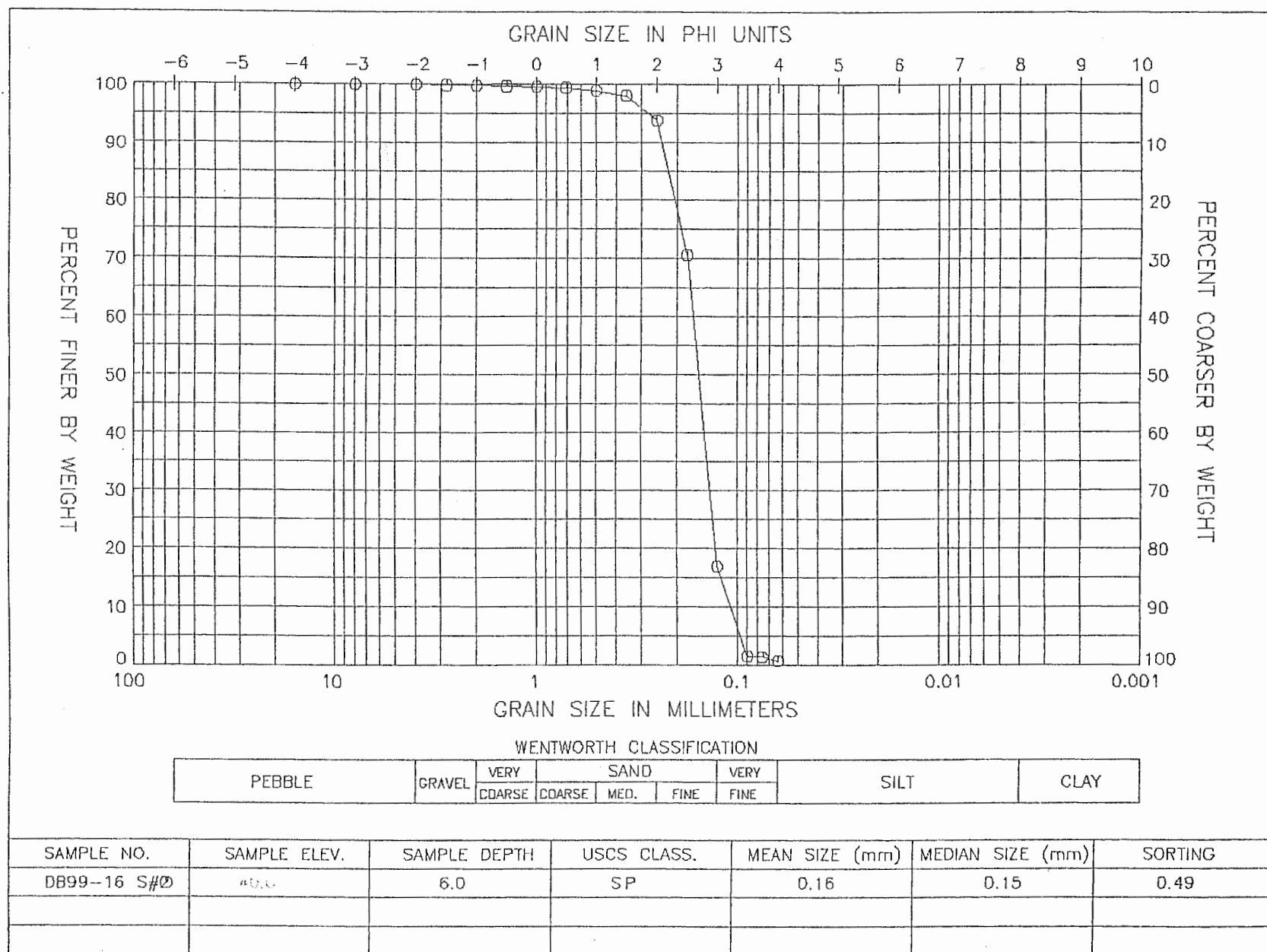
MEAN (PHI): 2.48 SORTING: 0.66  
MEAN (mm): 0.18

DATA FILE NAME: DB99-16#5.TAB

GRAIN SIZE DISTRIBUTION CURVE  
 DELRAY BEACH VIBRACORES 1999

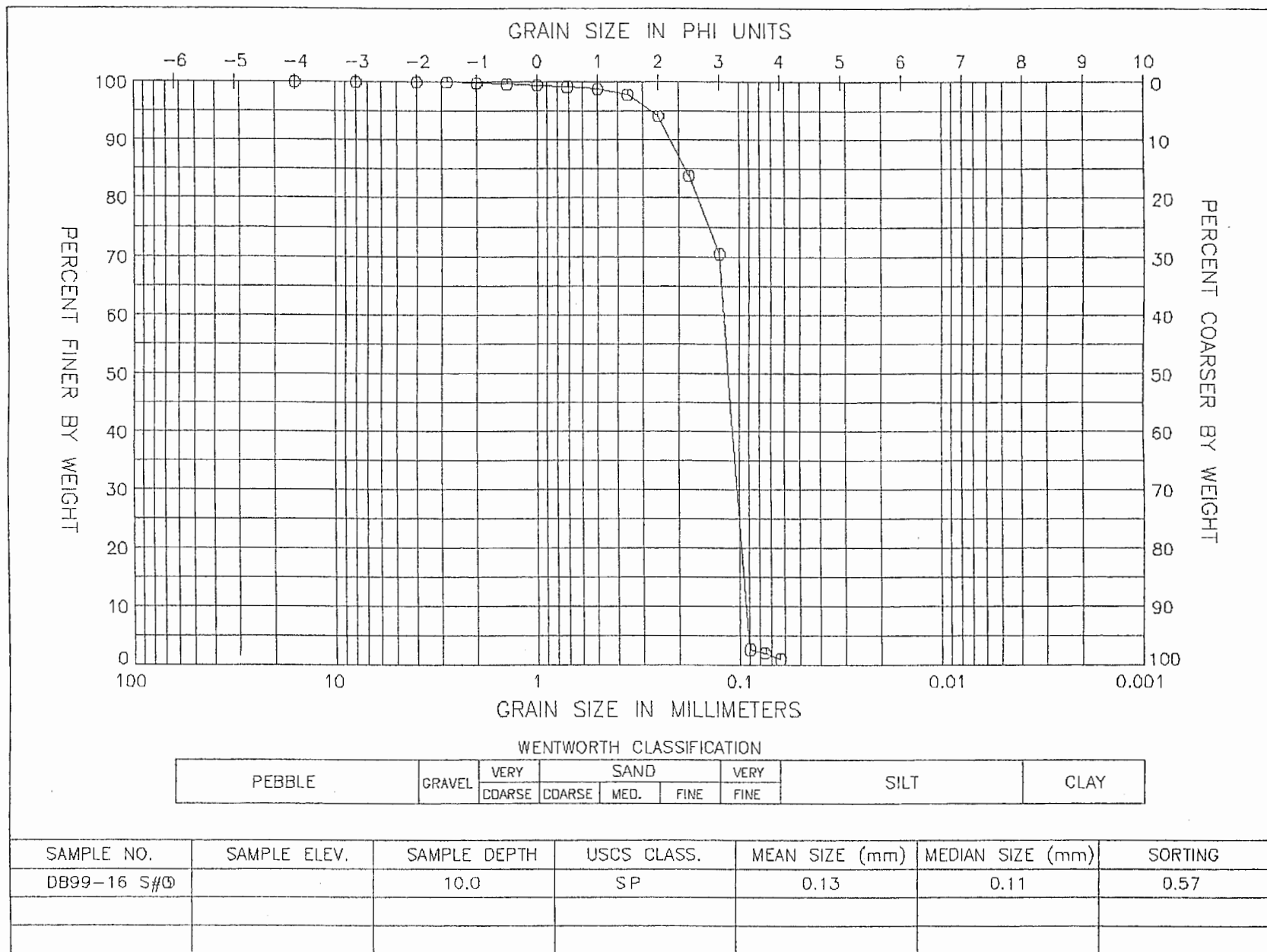


GRAIN SIZE DISTRIBUTION CURVE  
 DELRAY BEACH VIBRACORES 1999

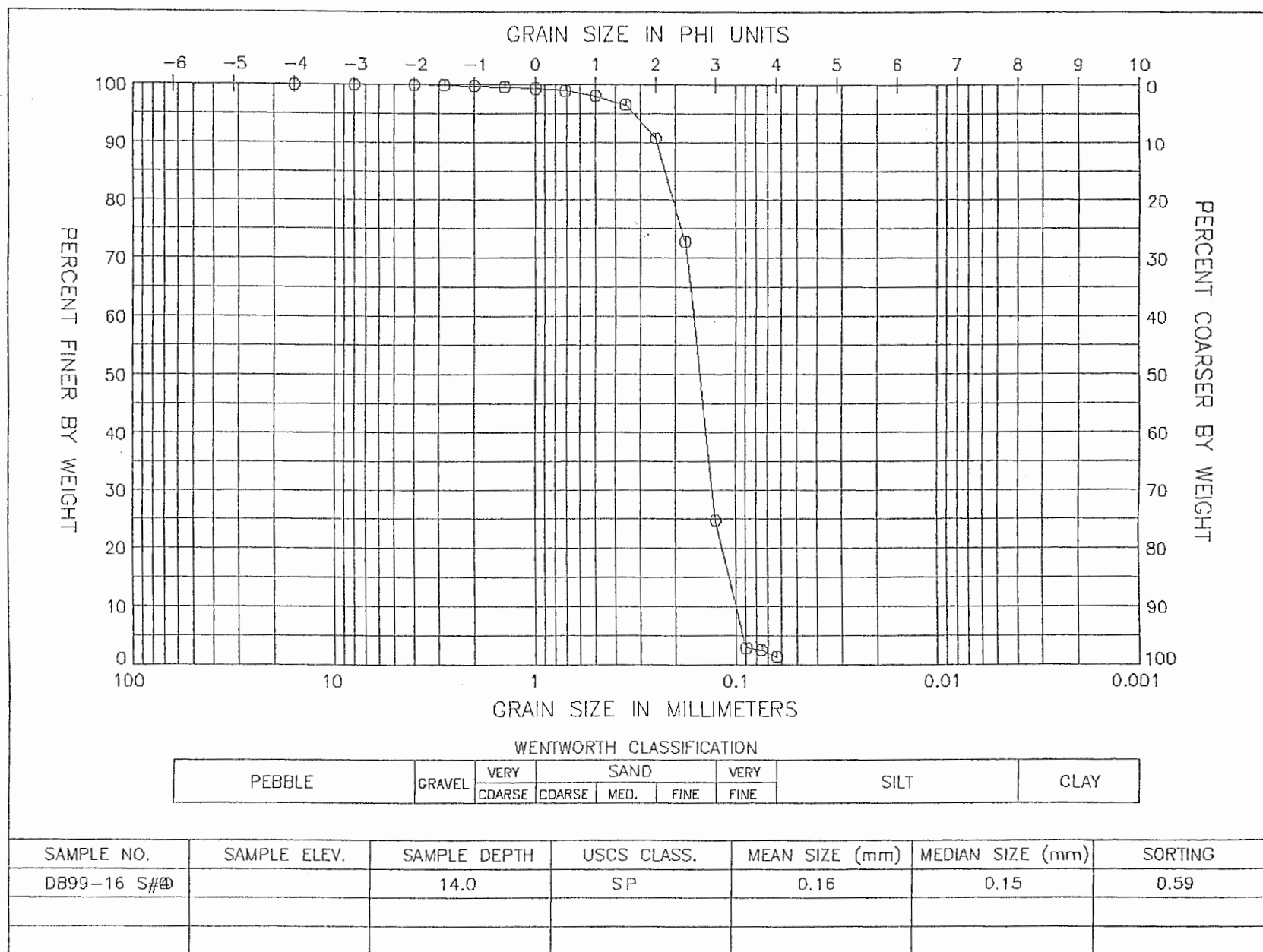




GRAIN SIZE DISTRIBUTION CURVE  
DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE  
 DELRAY BEACH VIBRACORES 1999



GRAIN SIZE DISTRIBUTION CURVE  
 DELRAY BEACH VIBRACORES 1999

