

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#1
SAMPLE ELEV. (FT. NGVD): 31.3
SAMPLE DEPTH (FT.): 1.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 173.07
SAMPLE WEIGHT AFTER WASH (GRAMS): 171.35

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	1.39	0.80	99.20
5	-2.00	4.000	4.05	2.34	97.66
7	-1.50	2.800	6.82	3.94	96.06
10	-1.00	2.000	12.29	7.10	92.90
14	-0.50	1.400	23.70	13.69	86.31
18	0.00	1.000	34.18	19.75	80.25
25	0.50	0.710	46.78	27.03	72.97
35	1.00	0.500	65.33	37.75	62.25
45	1.50	0.355	83.23	48.09	51.91
60	2.00	0.250	102.80	59.40	40.60
80	2.50	0.180	118.53	68.49	31.51
120	3.00	0.125	146.62	84.72	15.28
170	3.50	0.090	170.62	98.58	1.42
200	3.75	0.075	171.22	98.93	1.07
230	4.00	0.063	172.14	99.46	0.54
PAN			173.05	99.99	0.01

PHI (5): -1.33 PHI (16): -0.31 PHI (25): 0.36
PHI (50): 1.58 PHI (75): 2.70 PHI (84): 2.98
PHI (95): 3.37

SIEVE LOSS (g): 0.02 SILT/CLAY: 1.07%
SKEWNESS: -0.344 KURTOSIS: 0.824

GRAPHIC METHOD

MEAN (PHI): 1.26 SORTING: 1.64
MEAN (mm): 0.42 MEDIAN (mm): 0.33
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.37 SORTING: 1.53
MEAN (mm): 0.39

DATA FILE NAME: VC99-40#1.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#2
SAMPLE ELEV. (FT. NGVD): -32.5
SAMPLE DEPTH (FT.): 2.2
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 212.23
SAMPLE WEIGHT AFTER WASH (GRAMS): 208.77

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	1.21	0.57	99.43
5	-2.00	4.000	1.38	0.65	99.35
7	-1.50	2.800	1.65	0.78	99.22
10	-1.00	2.000	2.28	1.07	98.93
14	-0.50	1.400	3.09	1.46	98.54
18	0.00	1.000	4.18	1.97	98.03
25	0.50	0.710	5.80	2.73	97.27
35	1.00	0.500	8.25	3.89	96.11
45	1.50	0.355	11.30	5.32	94.68
60	2.00	0.250	18.92	8.91	91.09
80	2.50	0.180	40.67	19.16	80.84
120	3.00	0.125	138.14	65.09	34.91
170	3.50	0.090	207.09	97.58	2.42
200	3.75	0.075	208.47	98.23	1.77
230	4.00	0.063	210.39	99.13	0.87
PAN			212.21	99.99	0.01

PHI (5): 1.39 PHI (16): 2.35 PHI (25): 2.56
PHI (50): 2.84 PHI (75): 3.15 PHI (84): 3.29
PHI (95): 3.46

SIEVE LOSS (g): 0.02 SILT/CLAY: 1.77%
SKEWNESS: -0.872 KURTOSIS: 1.443

GRAPHIC METHOD

MEAN (PHI): 2.66 SORTING: 0.47
MEAN (mm): 0.16 MEDIAN (mm): 0.14
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.69 SORTING: 0.84
MEAN (mm): 0.15

DATA FILE NAME: VC99-40#2.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#3
SAMPLE ELEV. (FT. NGVD): -33.7
SAMPLE DEPTH (FT.): 3.4
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 216.39
SAMPLE WEIGHT AFTER WASH (GRAMS): 214.59

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	4.23	1.95	98.05
5	-2.00	4.000	12.87	5.95	94.05
7	-1.50	2.800	20.46	9.46	90.54
10	-1.00	2.000	32.11	14.84	85.16
14	-0.50	1.400	48.80	22.55	77.45
18	0.00	1.000	64.84	29.96	70.04
25	0.50	0.710	85.11	39.33	60.67
35	1.00	0.500	107.06	49.48	50.52
45	1.50	0.355	119.56	55.25	44.75
60	2.00	0.250	131.86	60.94	39.06
80	2.50	0.180	147.28	68.06	31.94
120	3.00	0.125	187.02	86.43	13.57
170	3.50	0.090	213.76	98.78	1.22
200	3.75	0.075	214.47	99.11	0.89
230	4.00	0.063	215.47	99.57	0.43
PAN			216.39	100.00	0.00

PHI (5): -2.24 PHI (16): -0.92 PHI (25): -0.33
PHI (50): 1.05 PHI (75): 2.69 PHI (84): 2.93
PHI (95): 3.35

SIEVE LOSS (g): 0.00 SILT/CLAY: 0.89%
SKEWNESS: -0.254 KURTOSIS: 0.757

GRAPHIC METHOD

MEAN (PHI): 0.83 SORTING: 1.93
MEAN (mm): 0.56 MEDIAN (mm): 0.48
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.00 SORTING: 1.80
MEAN (mm): 0.50

DATA FILE NAME: VC99-40#3.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#4
SAMPLE ELEV. (FT. NGVD): -34.7
SAMPLE DEPTH (FT.): 4.4
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 177.32
SAMPLE WEIGHT AFTER WASH (GRAMS): 173.25

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	0.27	0.15	99.85
5	-2.00	4.000	1.41	0.80	99.20
7	-1.50	2.800	3.50	1.97	98.03
10	-1.00	2.000	4.32	2.44	97.56
14	-0.50	1.400	5.36	3.02	96.98
18	0.00	1.000	7.36	4.15	95.85
25	0.50	0.710	9.95	5.61	94.39
35	1.00	0.500	14.85	8.37	91.63
45	1.50	0.355	22.34	12.60	87.40
60	2.00	0.250	38.50	21.71	78.29
80	2.50	0.180	67.24	37.92	62.08
120	3.00	0.125	134.92	76.09	23.91
170	3.50	0.090	172.30	97.17	2.83
200	3.75	0.075	173.12	97.63	2.37
230	4.00	0.063	175.25	98.83	1.17
PAN			177.32	100.00	0.00

PHI (5): 0.29 PHI (16): 1.69 PHI (25): 2.10
PHI (50): 2.66 PHI (75): 2.99 PHI (84): 3.19
PHI (95): 3.45

SIEVE LOSS (g): 0.00 SILT/CLAY: 2.37%
SKEWNESS: -1.051 KURTOSIS: 1.463

GRAPHIC METHOD

MEAN (PHI): 2.25 SORTING: 0.75
MEAN (mm): 0.21 MEDIAN (mm): 0.16
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.37 SORTING: 1.05
MEAN (mm): 0.19

DATA FILE NAME: VC99-40#4.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#5
SAMPLE ELEV. (FT. NGVD): -37.3
SAMPLE DEPTH (FT.): 7.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 182.72
SAMPLE WEIGHT AFTER WASH (GRAMS): 178.62

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	0.02	0.01	99.99
5	-2.00	4.000	0.11	0.06	99.94
7	-1.50	2.800	0.70	0.38	99.62
10	-1.00	2.000	1.48	0.81	99.19
14	-0.50	1.400	2.20	1.20	98.80
18	0.00	1.000	2.74	1.50	98.50
25	0.50	0.710	3.57	1.95	98.05
35	1.00	0.500	5.14	2.81	97.19
45	1.50	0.355	7.95	4.35	95.65
60	2.00	0.250	16.41	8.98	91.02
80	2.50	0.180	39.21	21.46	78.54
120	3.00	0.125	127.87	69.98	30.02
170	3.50	0.090	177.29	97.03	2.97
200	3.75	0.075	178.25	97.55	2.45
230	4.00	0.063	180.57	98.82	1.18
PAN			182.71	99.99	0.01

PHI (5): 1.57 PHI (16): 2.28 PHI (25): 2.54
PHI (50): 2.79 PHI (75): 3.09 PHI (84): 3.26
PHI (95): 3.46

SIEVE LOSS (g): 0.01 SILT/CLAY: 2.45%
SKEWNESS: -0.568 KURTOSIS: 1.394

GRAPHIC METHOD

MEAN (PHI): 2.67 SORTING: 0.49
MEAN (mm): 0.16 MEDIAN (mm): 0.14

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.69 SORTING: 0.70
MEAN (mm): 0.16

DATA FILE NAME: VC99-40#5.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/9/99

SAMPLE NO.: VC99 40#6
SAMPLE ELEV. (FT. NGVD): -39.0
SAMPLE DEPTH (FT.): 8.7
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 211.06
SAMPLE WEIGHT AFTER WASH (GRAMS): 208.82

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	5.39	2.55	97.45
5	-2.00	4.000	11.90	5.64	94.36
7	-1.50	2.800	17.61	8.34	91.66
10	-1.00	2.000	24.17	11.45	88.55
14	-0.50	1.400	35.60	16.87	83.13
18	0.00	1.000	45.23	21.43	78.57
25	0.50	0.710	61.94	29.35	70.65
35	1.00	0.500	89.25	42.29	57.71
45	1.50	0.355	117.66	55.75	44.25
60	2.00	0.250	146.16	69.25	30.75
80	2.50	0.180	169.16	80.15	19.85
120	3.00	0.125	197.03	93.35	6.65
170	3.50	0.090	208.11	98.60	1.40
200	3.75	0.075	208.53	98.80	1.20
230	4.00	0.063	209.80	99.40	0.60
PAN			211.03	99.99	0.01

PHI (5): -2.21 PHI (16): -0.58 PHI (25): 0.23
PHI (50): 1.29 PHI (75): 2.26 PHI (84): 2.65
PHI (95): 3.16

SIEVE LOSS (g): 0.03 SILT/CLAY: 1.20%
SKEWNESS: -0.503 KURTOSIS: 1.078

GRAPHIC METHOD

MEAN (PHI): 0.86 SORTING: 1.61
MEAN (mm): 0.55 MEDIAN (mm): 0.41
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.03 SORTING: 1.60
MEAN (mm): 0.49

DATA FILE NAME: VC99-40#6.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/10/99

SAMPLE NO.: VC99 40#7
SAMPLE ELEV. (FT. NGVD): -40.3
SAMPLE DEPTH (FT.): 10.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 151.86
SAMPLE WEIGHT AFTER WASH (GRAMS): 144.85

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	0.09	99.91
7	-1.50	2.800	0.63	0.41	99.59
10	-1.00	2.000	2.29	1.51	98.49
14	-0.50	1.400	3.02	1.99	98.01
18	0.00	1.000	3.64	2.40	97.60
25	0.50	0.710	4.77	3.14	96.86
35	1.00	0.500	6.68	4.40	95.60
45	1.50	0.355	8.93	5.88	94.12
60	2.00	0.250	14.56	9.59	90.41
80	2.50	0.180	29.55	19.46	80.54
120	3.00	0.125	92.03	60.60	39.40
170	3.50	0.090	143.93	94.78	5.22
200	3.75	0.075	144.67	95.27	4.73
230	4.00	0.063	148.32	97.67	2.33
PAN			151.86	100.00	0.00

PHI (5): 1.20 PHI (16): 2.32 PHI (25): 2.57
PHI (50): 2.87 PHI (75): 3.21 PHI (84): 3.34
PHI (95): 3.61

SIEVE LOSS (g): 0.00 SILT/CLAY: 4.73%
SKEWNESS: -0.910 KURTOSIS: 1.536

GRAPHIC METHOD

MEAN (PHI): 2.67 SORTING: 0.51
MEAN (mm): 0.16 MEDIAN (mm): 0.14
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.71 SORTING: 0.83
MEAN (mm): 0.15

DATA FILE NAME: VC99-40#7.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/10/99

SAMPLE NO.: VC99 40#8
SAMPLE ELEV. (FT. NGVD): -43.3
SAMPLE DEPTH (FT.): 13.0
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 223.51
SAMPLE WEIGHT AFTER WASH (GRAMS): 217.74

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	0.00	0.00	100.00
7	-1.50	2.800	0.09	0.04	99.96
10	-1.00	2.000	0.32	0.14	99.86
14	-0.50	1.400	0.63	0.28	99.72
18	0.00	1.000	0.95	0.43	99.57
25	0.50	0.710	1.47	0.66	99.34
35	1.00	0.500	2.71	1.21	98.79
45	1.50	0.355	5.36	2.40	97.60
60	2.00	0.250	14.56	6.51	93.49
80	2.50	0.180	41.17	18.42	81.58
120	3.00	0.125	131.15	58.68	41.32
170	3.50	0.090	214.09	95.79	4.21
200	3.75	0.075	216.40	96.82	3.18
230	4.00	0.063	219.90	98.39	1.61
PAN			223.48	99.99	0.01

PHI (5): 1.82 PHI (16): 2.40 PHI (25): 2.58
PHI (50): 2.89 PHI (75): 3.22 PHI (84): 3.34
PHI (95): 3.49

SIEVE LOSS (g): 0.03 SILT/CLAY: 3.18%
SKEWNESS: -0.508 KURTOSIS: 1.075

GRAPHIC METHOD

MEAN (PHI): 2.79 SORTING: 0.47
MEAN (mm) : 0.14 MEDIAN (mm): 0.13
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.81 SORTING: 0.56
MEAN (mm) : 0.14

DATA FILE NAME: VC99-40#8.TAB

GRADATION ANALYSIS REPORT
TOWN OF PALM BEACH
TESTED BY: RW ON: 6/10/99

SAMPLE NO.: VC99 40#9
SAMPLE ELEV. (FT. NGVD): -44.8
SAMPLE DEPTH (FT.): 14.5
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 234.65
SAMPLE WEIGHT AFTER WASH (GRAMS): 231.64

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	3.24	1.38	98.62
5	-2.00	4.000	5.08	2.16	97.84
7	-1.50	2.800	8.96	3.82	96.18
10	-1.00	2.000	15.79	6.73	93.27
14	-0.50	1.400	32.77	13.97	86.03
18	0.00	1.000	53.05	22.61	77.39
25	0.50	0.710	66.37	28.28	71.72
35	1.00	0.500	83.46	35.57	64.43
45	1.50	0.355	98.16	41.83	58.17
60	2.00	0.250	126.99	54.12	45.88
80	2.50	0.180	164.74	70.21	29.79
120	3.00	0.125	206.74	88.11	11.89
170	3.50	0.090	231.15	98.51	1.49
200	3.75	0.075	231.60	98.70	1.30
230	4.00	0.063	233.14	99.36	0.64
PAN			234.66	100.00	0.00

PHI (5): -1.30 PHI (16): -0.38 PHI (25): 0.21
PHI (50): 1.83 PHI (75): 2.63 PHI (84): 2.89
PHI (95): 3.33

SIEVE LOSS (g): -0.01 SILT/CLAY: 1.30%
SKEWNESS: -0.499 KURTOSIS: 0.783

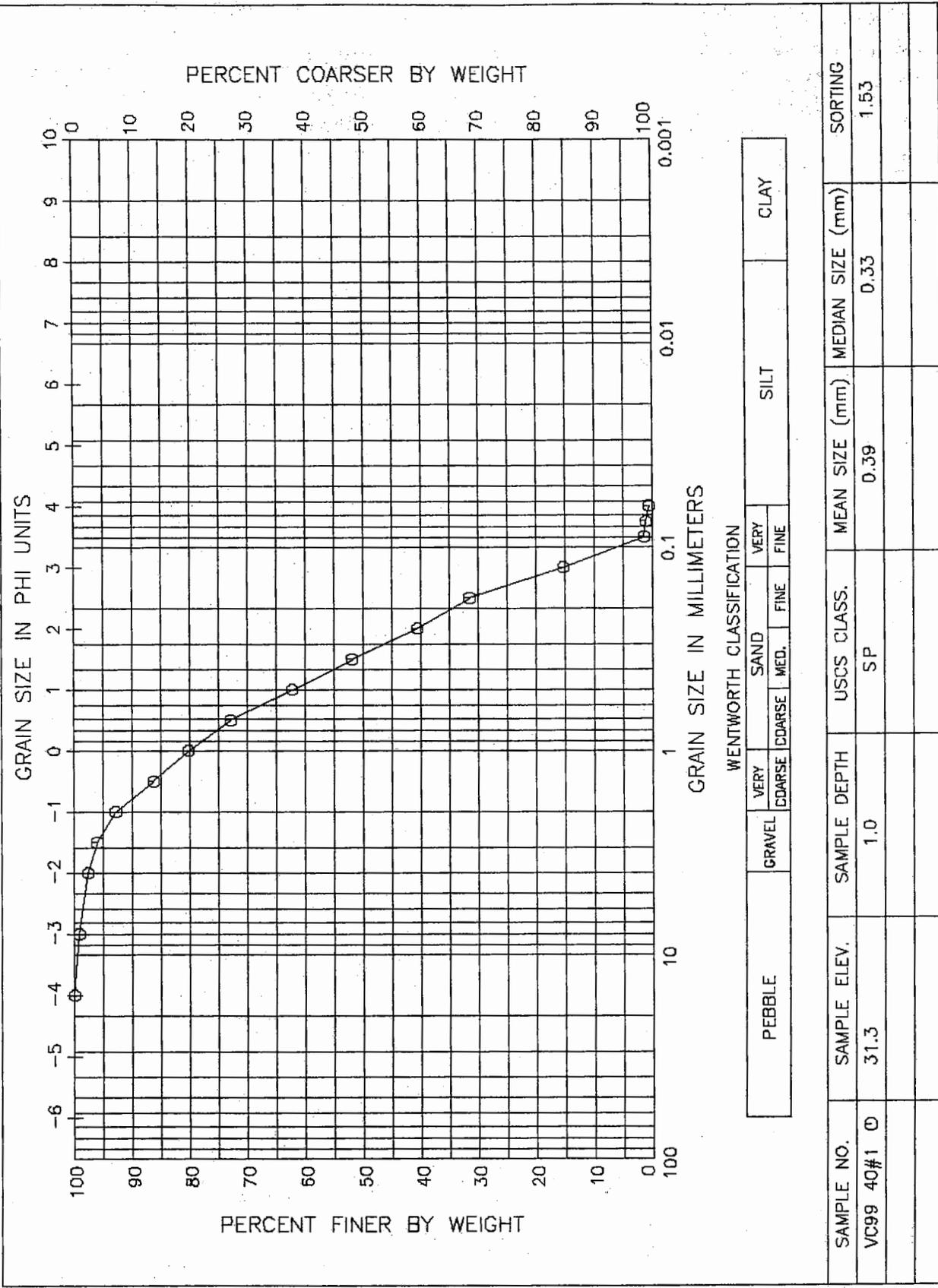
GRAPHIC METHOD

MEAN (PHI): 1.27 SORTING: 1.63
MEAN (mm): 0.41 MEDIAN (mm): 0.28
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

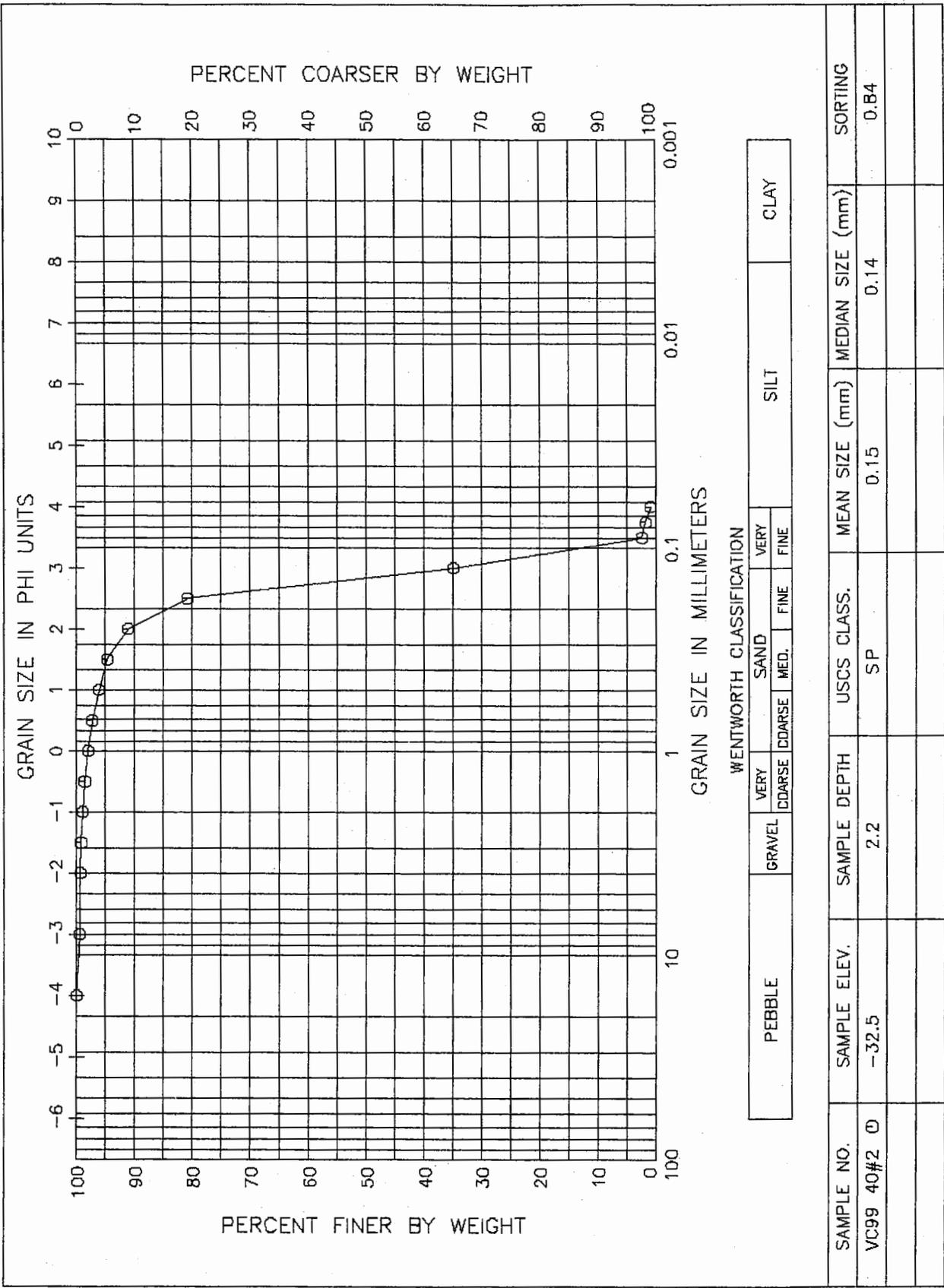
MOMENT METHOD

MEAN (PHI): 1.39 SORTING: 1.54
MEAN (mm): 0.38

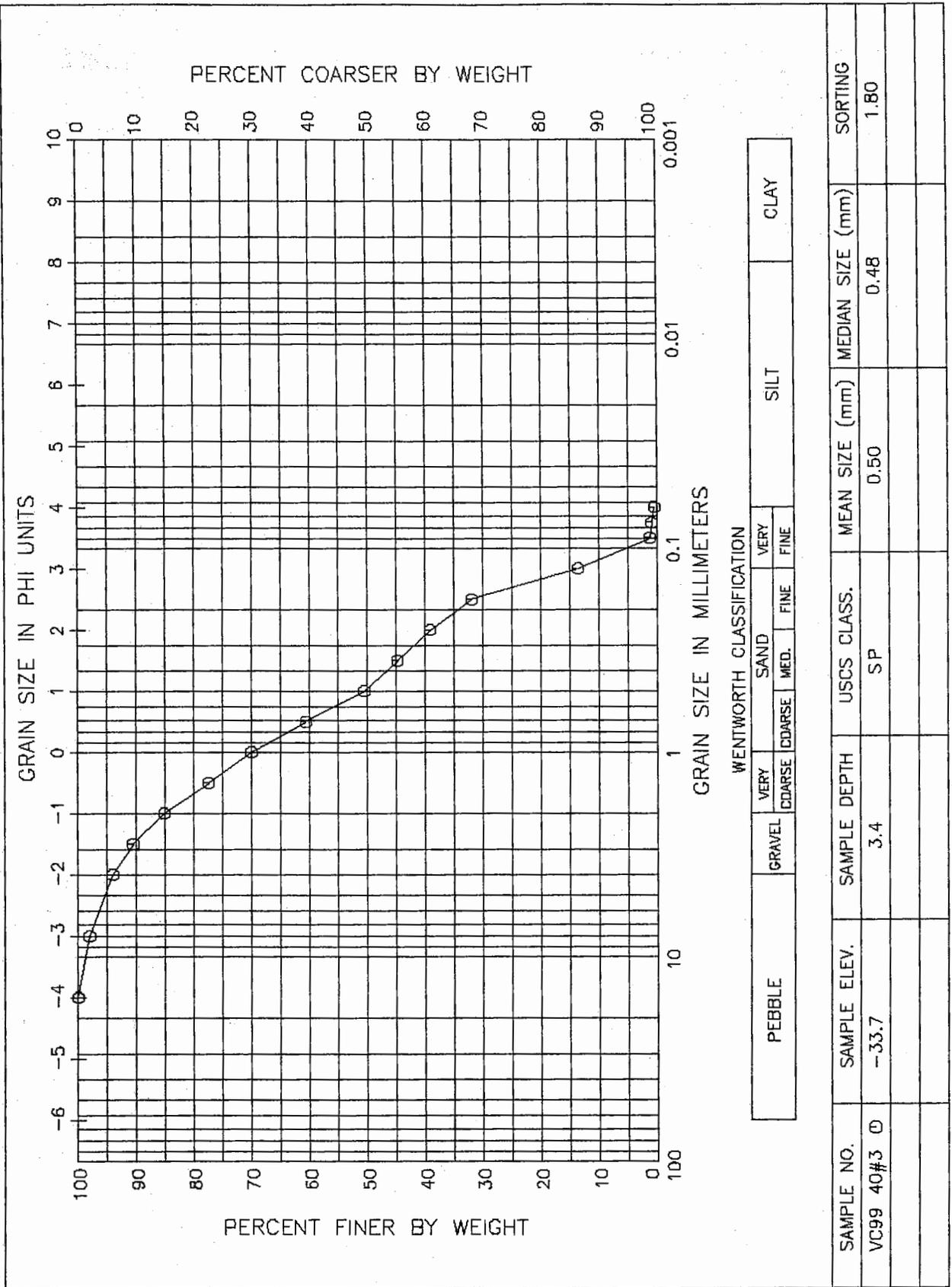
DATA FILE NAME: VC99-40#9.TAB



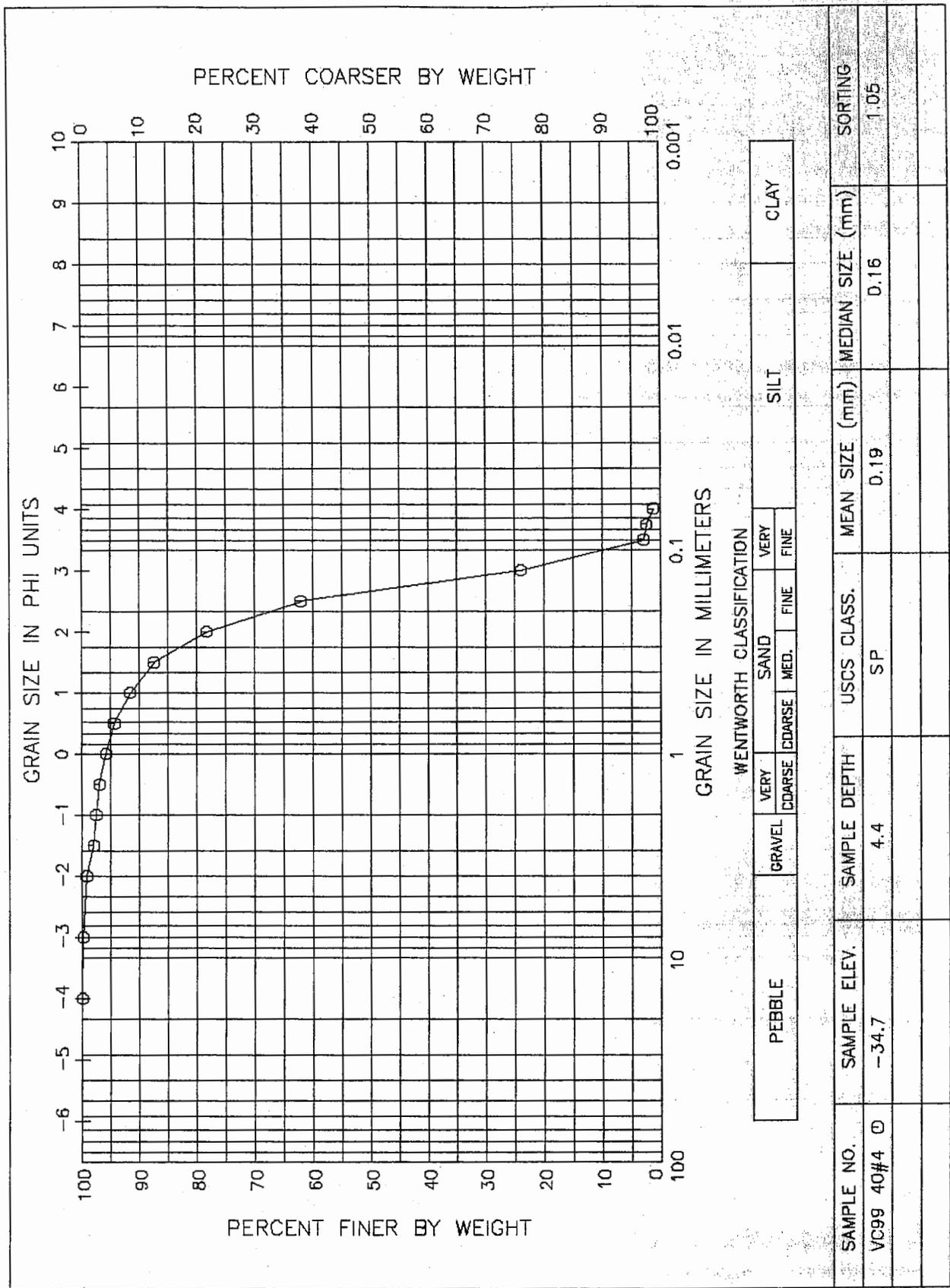
GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



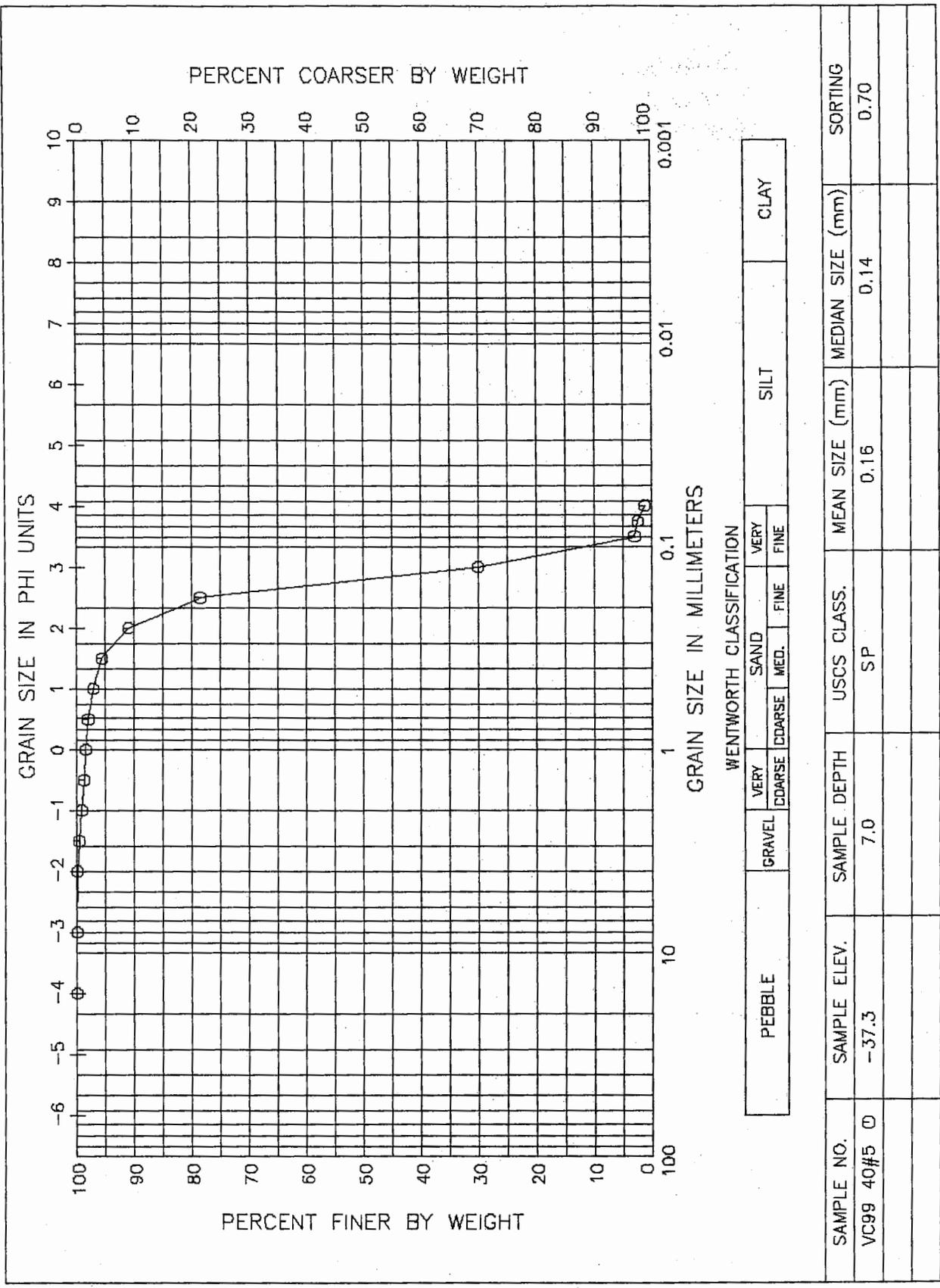
GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



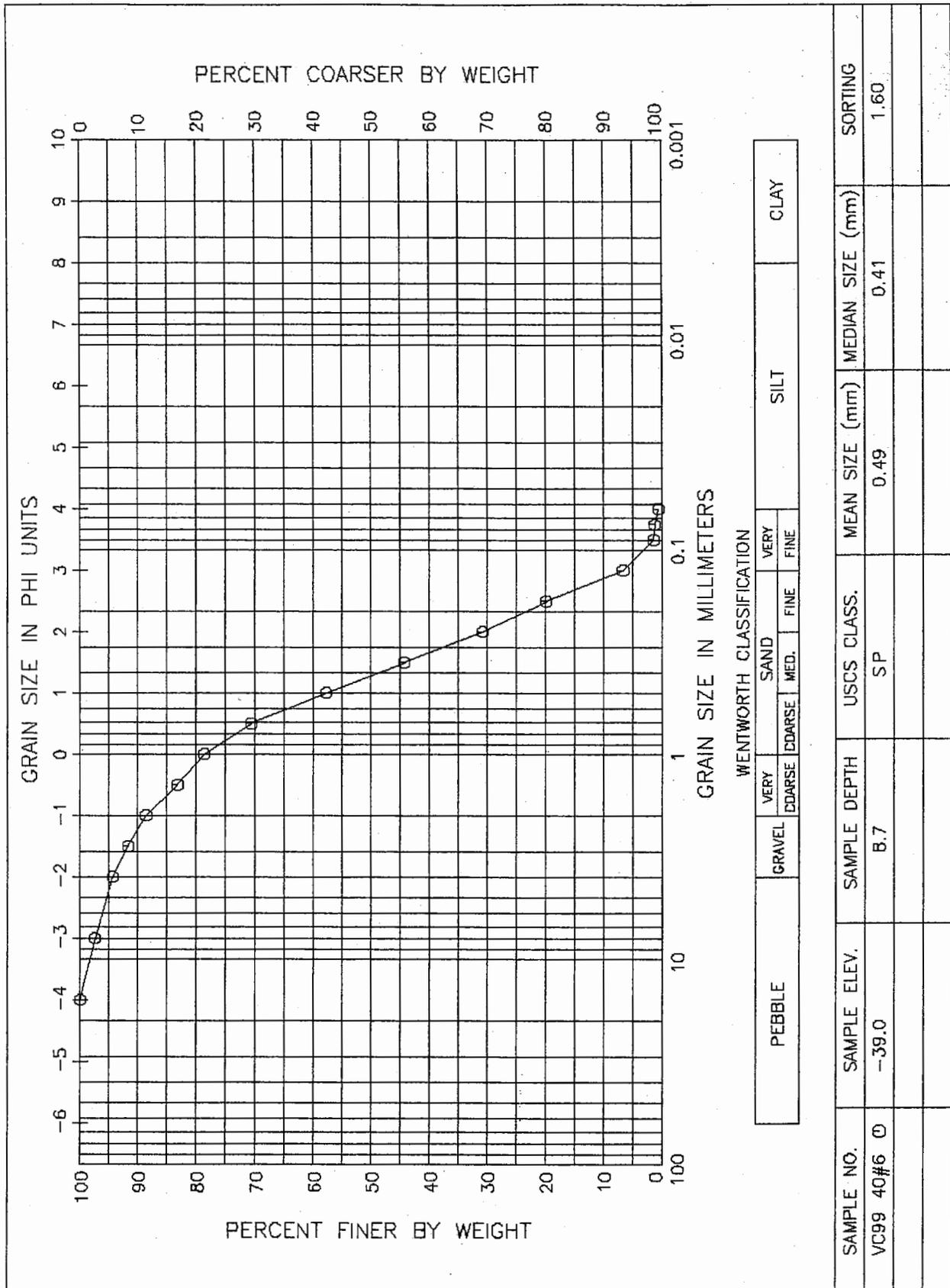
GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



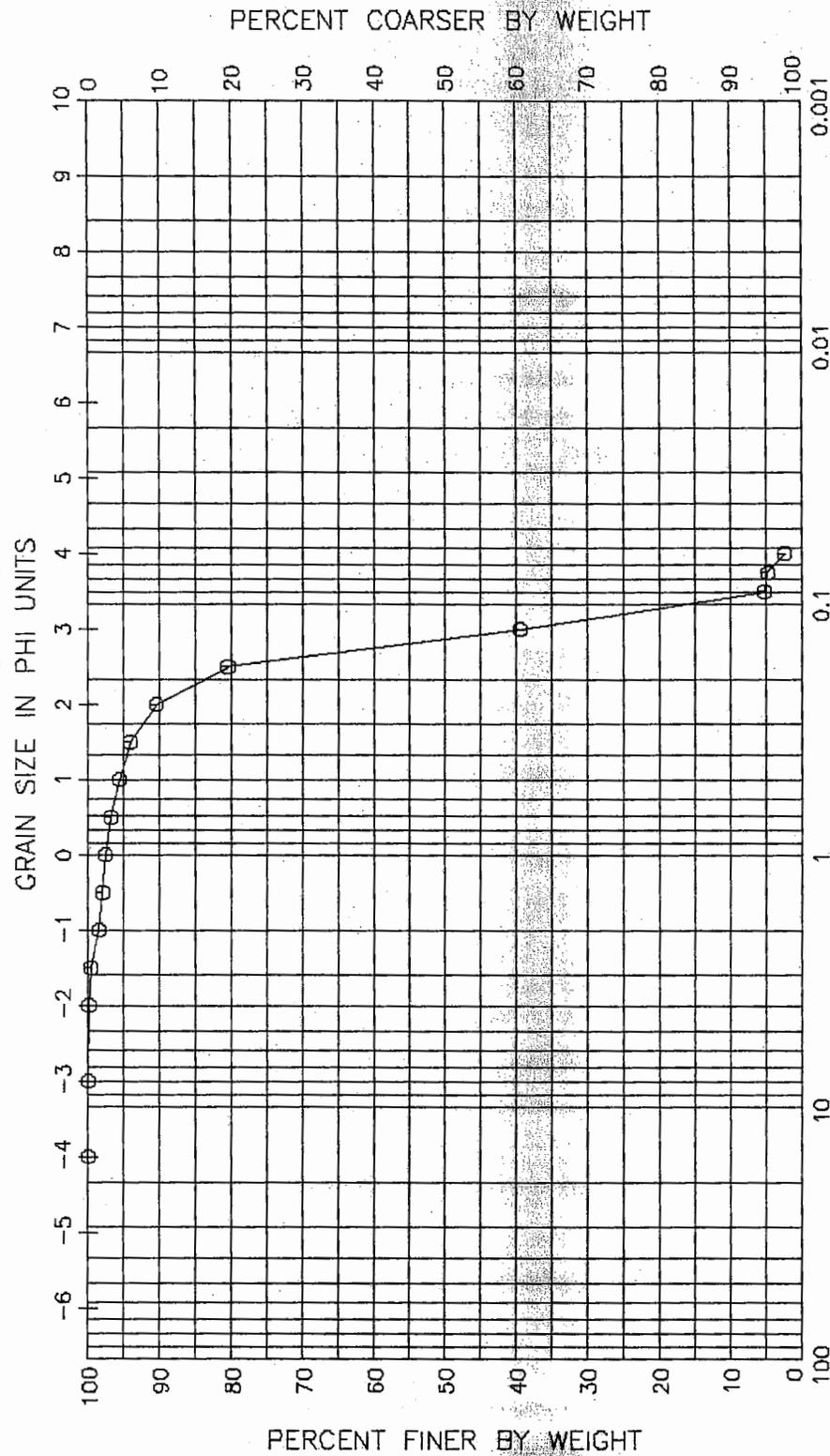
GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

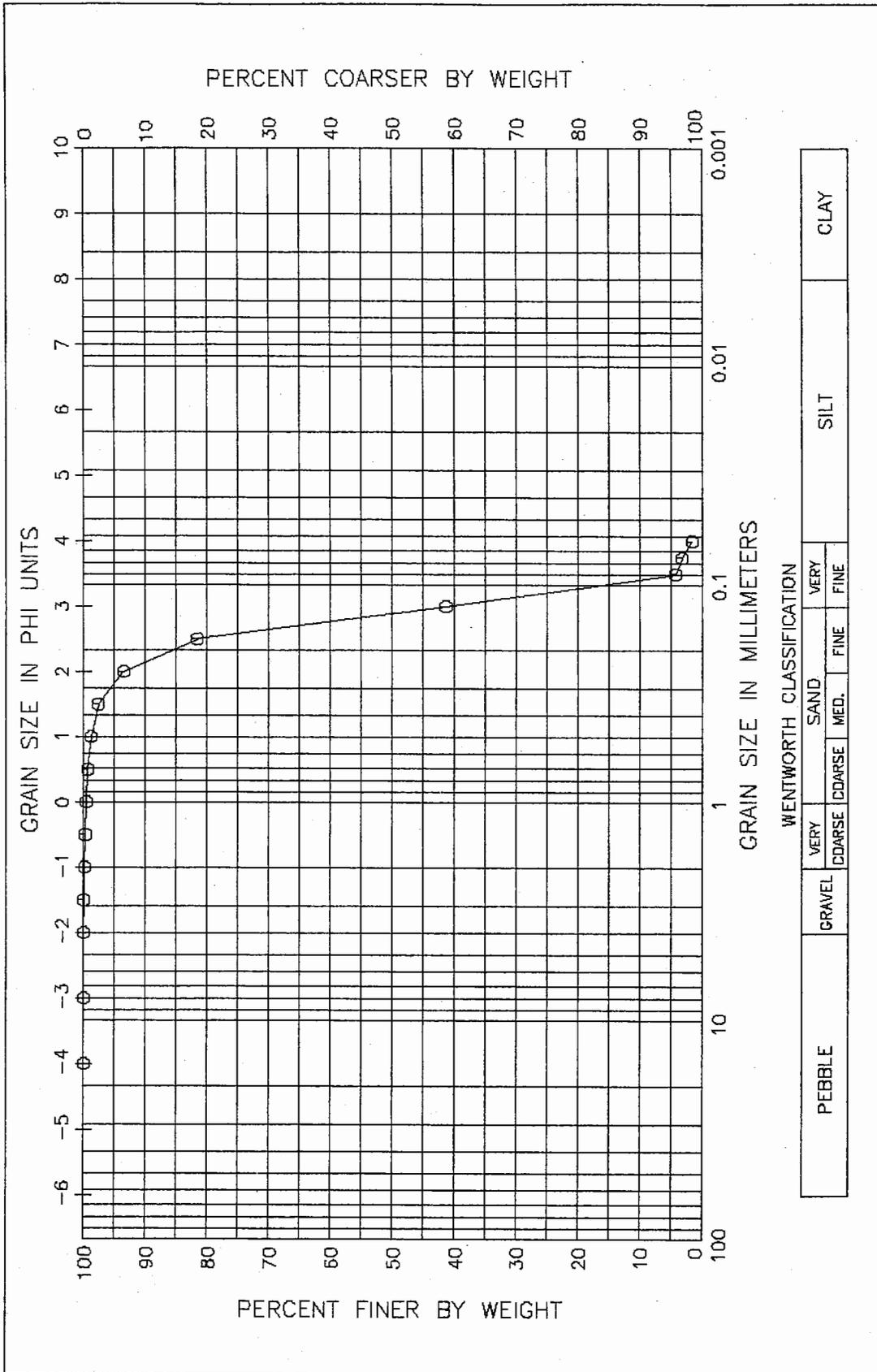


GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



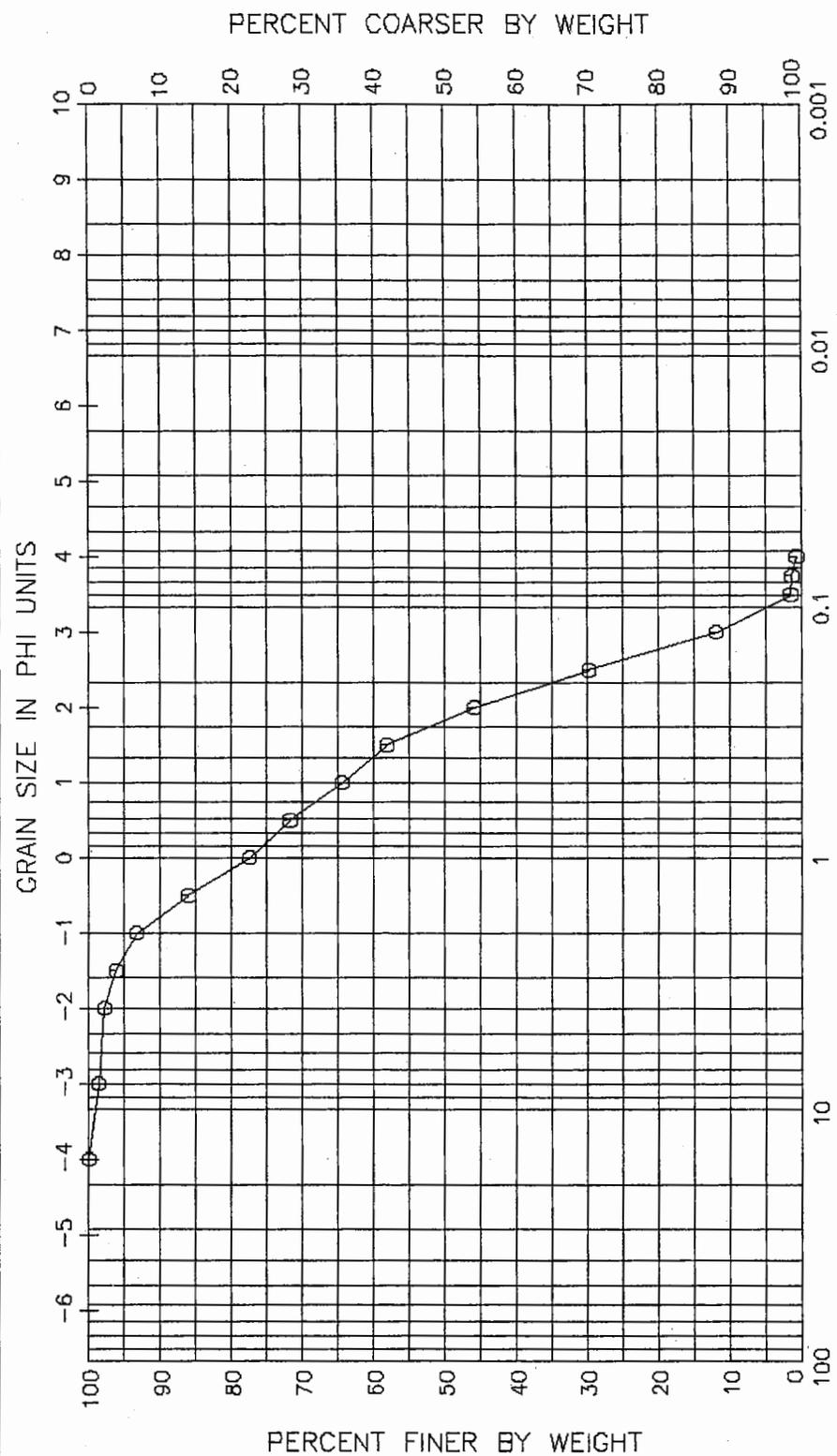
SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99 40#7 0	-40.3	10.0	SP	0.15	0.14	0.83

GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99 40#B	-43.3	13.0	SP	0.14	0.13	0.56

GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH



SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99 40#9 0	-44.8	14.5	SP	0.38	0.28	1.54

GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH