

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 5/11/99

SAMPLE NO.: VC99 13#1

SAMPLE ELEV. (FT. NGVD): -32.0

SAMPLE DEPTH (FT.): 1.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 86.39

SAMPLE WEIGHT AFTER WASH (GRAMS): 84.54

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	0.02	0.02	99.98
10	-1.00	2.000	0.08	0.09	99.91
14	-0.50	1.400	0.28	0.32	99.68
18	0.00	1.000	0.55	0.64	99.36
25	0.50	0.710	1.13	1.31	98.69
35	1.00	0.500	2.79	3.23	96.77
45	1.50	0.355	5.51	6.38	93.62
60	2.00	0.250	11.40	13.20	86.80
80	2.50	0.180	17.98	20.81	79.19
120	3.00	0.125	42.29	48.95	51.05
170	3.50	0.090	83.25	96.37	3.63
200	3.75	0.075	84.35	97.64	2.36
230	4.00	0.063	82.41	95.40	4.60
PAN			86.36	99.97	0.03

PHI (5): 1.28

PHI (16): 2.18

PHI (25): 2.57

PHI (50): 3.01

PHI (75): 3.27

PHI (84): 3.37

PHI (95): 3.49

SIEVE LOSS(g): 0.03

SILT/CLAY: 2.36%

SKEWNESS: -1.059

KURTOSIS: 1.290

GRAPHIC METHOD

MEAN (PHI): 2.67

SORTING: 0.59

MEAN (mm): 0.16

MEDIAN (mm): 0.12

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.74

SORTING: 0.69

MEAN (mm): 0.15

DATA FILE NAME: VC99-13#1.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 5/11/99

SAMPLE NO.: VC99 13#2
SAMPLE ELEV. (FT. NGVD): -33.5
SAMPLE DEPTH (FT.): 2.5
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 98.06
SAMPLE WEIGHT AFTER WASH (GRAMS): 97.23

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	0.28	99.72
5	-2.00	4.000	1.11	1.13	98.87
7	-1.50	2.800	2.17	2.21	97.79
10	-1.00	2.000	6.79	6.92	93.08
14	-0.50	1.400	6.83	6.97	93.03
18	0.00	1.000	9.88	10.08	89.92
25	0.50	0.710	17.36	17.70	82.30
35	1.00	0.500	34.17	34.85	65.15
45	1.50	0.355	54.74	55.82	44.18
60	2.00	0.250	69.45	70.82	29.18
80	2.50	0.180	78.46	80.01	19.99
120	3.00	0.125	90.21	91.99	8.01
170	3.50	0.090	96.78	98.69	1.31
200	3.75	0.075	97.21	99.13	0.87
230	4.00	0.063	97.63	99.56	0.44
PAN			98.04	99.98	0.02

PHI(5): -1.20 PHI(16): 0.39 PHI(25): 0.71
PHI(50): 1.36 PHI(75): 2.23 PHI(84): 2.67
PHI(95): 3.22

SIEVE LOSS(g): 0.02 SILT/CLAY: 0.87%
SKEWNESS: -0.308 KURTOSIS: 1.198

GRAPHIC METHOD

MEAN (PHI): 1.29 SORTING: 1.14
MEAN (mm): 0.41 MEDIAN (mm): 0.39

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.35 SORTING: 1.22
MEAN (mm): 0.39

DATA FILE NAME: VC99-13#2.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 5/11/99

SAMPLE NO.: VC99 13#3

SAMPLE ELEV. (FT. NGVD): -36.5

SAMPLE DEPTH (FT.): 5.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 93.90

SAMPLE WEIGHT AFTER WASH (GRAMS): 92.76

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	0.17	99.83
7	-1.50	2.800	0.40	0.43	99.57
10	-1.00	2.000	0.86	0.92	99.08
14	-0.50	1.400	1.61	1.71	98.29
18	0.00	1.000	3.11	3.31	96.69
25	0.50	0.710	7.30	7.77	92.23
35	1.00	0.500	19.22	20.47	79.53
45	1.50	0.355	34.61	36.86	63.14
60	2.00	0.250	45.99	48.98	51.02
80	2.50	0.180	59.32	63.17	36.83
120	3.00	0.125	82.22	87.56	12.44
170	3.50	0.090	92.26	98.25	1.75
200	3.75	0.075	92.68	98.70	1.30
230	4.00	0.063	93.25	99.31	0.69
PAN			93.88	99.98	0.02

PHI (5): 0.19

PHI (16): 0.82

PHI (25): 1.14

PHI (50): 2.04

PHI (75): 2.74

PHI (84): 2.93

PHI (95): 3.35

SIEVE LOSS (g): 0.02

SILT/CLAY: 1.30%

SKEWNESS: -0.254

KURTOSIS: 0.807

GRAPHIC METHOD

MEAN (PHI): 1.86

SORTING: 1.05

MEAN (mm): 0.27

MEDIAN (mm): 0.24

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.89

SORTING: 1.02

MEAN (mm): 0.27

DATA FILE NAME: VC99-13#3.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW

ON: 5/11/99

SAMPLE NO.: VC99 13#4

SAMPLE ELEV. (FT. NGVD): -38.9

SAMPLE DEPTH (FT.): 7.9

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 85.23

SAMPLE WEIGHT AFTER WASH (GRAMS): 82.19

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	0.02	0.02	99.98
7	-1.50	2.800	0.04	0.05	99.95
10	-1.00	2.000	0.09	0.11	99.89
14	-0.50	1.400	0.17	0.20	99.80
18	0.00	1.000	0.31	0.36	99.64
25	0.50	0.710	0.59	0.69	99.31
35	1.00	0.500	1.53	1.80	98.20
45	1.50	0.355	3.18	3.73	96.27
60	2.00	0.250	8.22	9.64	90.36
80	2.50	0.180	18.12	21.26	78.74
120	3.00	0.125	53.10	62.30	37.70
170	3.50	0.090	79.99	93.85	6.15
200	3.75	0.075	81.56	95.69	4.31
230	4.00	0.063	83.46	97.92	2.08
PAN			85.19	99.95	0.05

PHI (5): 1.61

PHI (16): 2.27

PHI (25): 2.55

PHI (50): 2.85

PHI (75): 3.20

PHI (84): 3.34

PHI (95): 3.66

SIEVE LOSS (g): 0.04

SILT/CLAY: 4.31%

SKEWNESS: -0.408

KURTOSIS: 1.280

GRAPHIC METHOD

MEAN (PHI): 2.75

SORTING: 0.54

MEAN (mm): 0.15

MEDIAN (mm): 0.14

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.76

SORTING: 0.61

MEAN (mm): 0.15

DATA FILE NAME: VC99-13#4.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 5/11/99

SAMPLE NO.: VC99 13#5

SAMPLE ELEV. (FT. NGVD): -42.0

SAMPLE DEPTH (FT.): 11.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 103.64

SAMPLE WEIGHT AFTER WASH (GRAMS): 102.28

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	0.10	0.10	99.90
10	-1.00	2.000	0.15	0.14	99.86
14	-0.50	1.400	0.33	0.32	99.68
18	0.00	1.000	0.87	0.84	99.16
25	0.50	0.710	3.01	2.90	97.10
35	1.00	0.500	14.90	14.38	85.62
45	1.50	0.355	38.34	36.99	63.01
60	2.00	0.250	78.76	75.99	24.01
80	2.50	0.180	94.52	91.20	8.80
120	3.00	0.125	99.75	96.25	3.75
170	3.50	0.090	102.11	98.52	1.48
200	3.75	0.075	102.23	98.64	1.36
230	4.00	0.063	102.93	99.31	0.69
PAN			103.61	99.97	0.03

PHI(5): 0.59

PHI(16): 1.04

PHI(25): 1.23

PHI(50): 1.67

PHI(75): 1.99

PHI(84): 2.26

PHI(95): 2.88

SIEVE LOSS(g): 0.03

SILT/CLAY: 1.36%

SKEWNESS: 0.109

KURTOSIS: 1.245

GRAPHIC METHOD

MEAN (PHI): 1.69

SORTING: 0.61

MEAN (mm): 0.31

MEDIAN (mm): 0.31

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.65

SORTING: 0.66

MEAN (mm): 0.32

DATA FILE NAME: VC99-13#5.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#13-6

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 14.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 108.49

SAMPLE WEIGHT AFTER WASH (GRAMS): 107.25

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	1.64	1.51	98.49
5	-2.00	4.000	6.49	5.98	94.02
7	-1.50	2.800	8.35	7.70	92.30
10	-1.00	2.000	11.46	10.56	89.44
14	-0.50	1.400	17.28	15.93	84.07
18	0.00	1.000	25.55	23.55	76.45
25	0.50	0.710	38.61	35.59	64.41
35	1.00	0.500	60.94	56.17	43.83
45	1.50	0.355	76.12	70.16	29.84
60	2.00	0.250	85.49	78.80	21.20
80	2.50	0.180	91.47	84.31	15.69
120	3.00	0.125	99.39	91.61	8.39
170	3.50	0.090	106.99	98.62	1.38
200	3.75	0.075	107.20	98.81	1.19
230	4.00	0.063	107.86	99.42	0.58
PAN			108.49	100.00	0.00

PHI(5): -2.22

PHI(16): -0.50

PHI(25): 0.06

PHI(50): 0.85

PHI(75): 1.78

PHI(84): 2.47

PHI(95): 3.24

SIEVE LOSS(g): 0.00

SILT/CLAY: 1.19%

SKEWNESS: -0.229

KURTOSIS: 1.301

GRAPHIC METHOD

MEAN (PHI): 0.77

SORTING: 1.48

MEAN (mm): 0.59

MEDIAN (mm): 0.55

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 0.81

SORTING: 1.50

MEAN (mm): 0.57

DATA FILE NAME: VC-99#13-6.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#13-7

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 4.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 107.45

SAMPLE WEIGHT AFTER WASH (GRAMS): 104.80

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	0.26	0.24	99.76
10	-1.00	2.000	0.47	0.44	99.56
14	-0.50	1.400	1.08	1.01	98.99
18	0.00	1.000	2.22	2.07	97.93
25	0.50	0.710	4.11	3.83	96.17
35	1.00	0.500	6.18	5.75	94.25
45	1.50	0.355	8.08	7.52	92.48
60	2.00	0.250	11.48	10.68	89.32
80	2.50	0.180	18.13	16.87	83.13
120	3.00	0.125	32.03	29.81	70.19
170	3.50	0.090	103.24	96.08	3.92
200	3.75	0.075	104.63	97.38	2.62
230	4.00	0.063	106.10	98.75	1.25
PAN			107.44	99.99	0.01

PHI(5): 0.80

PHI(16): 2.43

PHI(25): 2.81

PHI(50): 3.15

PHI(75): 3.34

PHI(84): 3.41

PHI(95): 3.49

SIEVE LOSS(g): 0.01

SILT/CLAY: 2.62%

SKEWNESS: -2.050

KURTOSIS: 2.090

GRAPHIC METHOD

MEAN (PHI): 2.66

SORTING: 0.49

MEAN (mm): 0.16

MEDIAN (mm): 0.11

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.87

SORTING: 0.84

MEAN (mm): 0.14

DATA FILE NAME: VC-99#13-7.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#13-8

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 6.3

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 105.61

SAMPLE WEIGHT AFTER WASH (GRAMS): 103.52

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	2.32	2.20	97.80
7	-1.50	2.800	4.84	4.58	95.42
10	-1.00	2.000	7.58	7.18	92.82
14	-0.50	1.400	12.29	11.64	88.36
18	0.00	1.000	18.76	17.76	82.24
25	0.50	0.710	28.29	26.79	73.21
35	1.00	0.500	40.62	38.46	61.54
45	1.50	0.355	48.35	45.78	54.22
60	2.00	0.250	55.67	52.71	47.29
80	2.50	0.180	62.84	59.50	40.50
120	3.00	0.125	81.05	76.74	23.26
170	3.50	0.090	102.31	96.88	3.12
200	3.75	0.075	103.33	97.84	2.16
230	4.00	0.063	104.54	98.98	1.02
PAN			105.60	99.99	0.01

PHI(5): -1.42

PHI(16): -0.14

PHI(25): 0.40

PHI(50): 1.80

PHI(75): 2.95

PHI(84): 3.18

PHI(95): 3.45

SIEVE LOSS(g): 0.01

SILT/CLAY: 2.16%

SKEWNESS: -0.474

KURTOSIS: 0.784

GRAPHIC METHOD

MEAN (PHI): 1.37

SORTING: 1.66

MEAN (mm): 0.39

MEDIAN (mm): 0.29

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.52

SORTING: 1.58

MEAN (mm): 0.35

DATA FILE NAME: VC-99#13-8.TAB

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

SAMPLE NO.: VC-99#13-9
SAMPLE ELEV. (FT. NGVD): 0.0
SAMPLE DEPTH (FT.): 12.8
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 103.46
SAMPLE WEIGHT AFTER WASH (GRAMS): 100.30

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	0.14	0.14	99.86
10	-1.00	2.000	0.30	0.29	99.71
14	-0.50	1.400	0.68	0.66	99.34
18	0.00	1.000	1.30	1.26	98.74
25	0.50	0.710	2.77	2.68	97.32
35	1.00	0.500	6.10	5.90	94.10
45	1.50	0.355	12.32	11.91	88.09
60	2.00	0.250	28.00	27.06	72.94
80	2.50	0.180	45.52	44.00	56.00
120	3.00	0.125	59.36	57.37	42.63
170	3.50	0.090	99.54	96.21	3.79
200	3.75	0.075	100.16	96.81	3.19
230	4.00	0.063	101.87	98.46	1.54
PAN			103.46	100.00	0.00

PHI (5): 0.86	PHI (16): 1.63	PHI (25): 1.93
PHI (50): 2.72	PHI (75): 3.23	PHI (84): 3.34
PHI (95): 3.48		

SIEVE LOSS (g): 0.00	SILT/CLAY: 3.19%
SKEWNESS: -0.646	KURTOSIS: 0.830

GRAPHIC METHOD

MEAN (PHI): 2.41	SORTING: 0.85
MEAN (mm): 0.19	MEDIAN (mm): 0.15
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD	

MOMENT METHOD

MEAN (PHI): 2.49	SORTING: 0.88
MEAN (mm): 0.18	

DATA FILE NAME: VC-99#13-9.TAB

GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

SAMPLE NO.: VC-99#13-10

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 16.5

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 104.22

SAMPLE WEIGHT AFTER WASH (GRAMS): 102.02

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	0.00	0.00	100.00
10	-1.00	2.000	0.00	0.00	100.00
14	-0.50	1.400	0.09	0.09	99.91
18	0.00	1.000	0.17	0.16	99.84
25	0.50	0.710	0.30	0.29	99.71
35	1.00	0.500	0.76	0.73	99.27
45	1.50	0.355	2.10	2.01	97.99
60	2.00	0.250	10.77	10.33	89.67
80	2.50	0.180	39.72	38.11	61.89
120	3.00	0.125	78.82	75.63	24.37
170	3.50	0.090	101.49	97.38	2.62
200	3.75	0.075	101.93	97.80	2.20
230	4.00	0.063	103.11	98.93	1.07
PAN			104.22	100.00	0.00

PHI(5): 1.68	PHI(16): 2.10	PHI(25): 2.26
PHI(50): 2.66	PHI(75): 2.99	PHI(84): 3.19
PHI(95): 3.45		

SIEVE LOSS(g): 0.00	SILT/CLAY: 2.20%
SKEWNESS: -0.176	KURTOSIS: 0.995

GRAPHIC METHOD

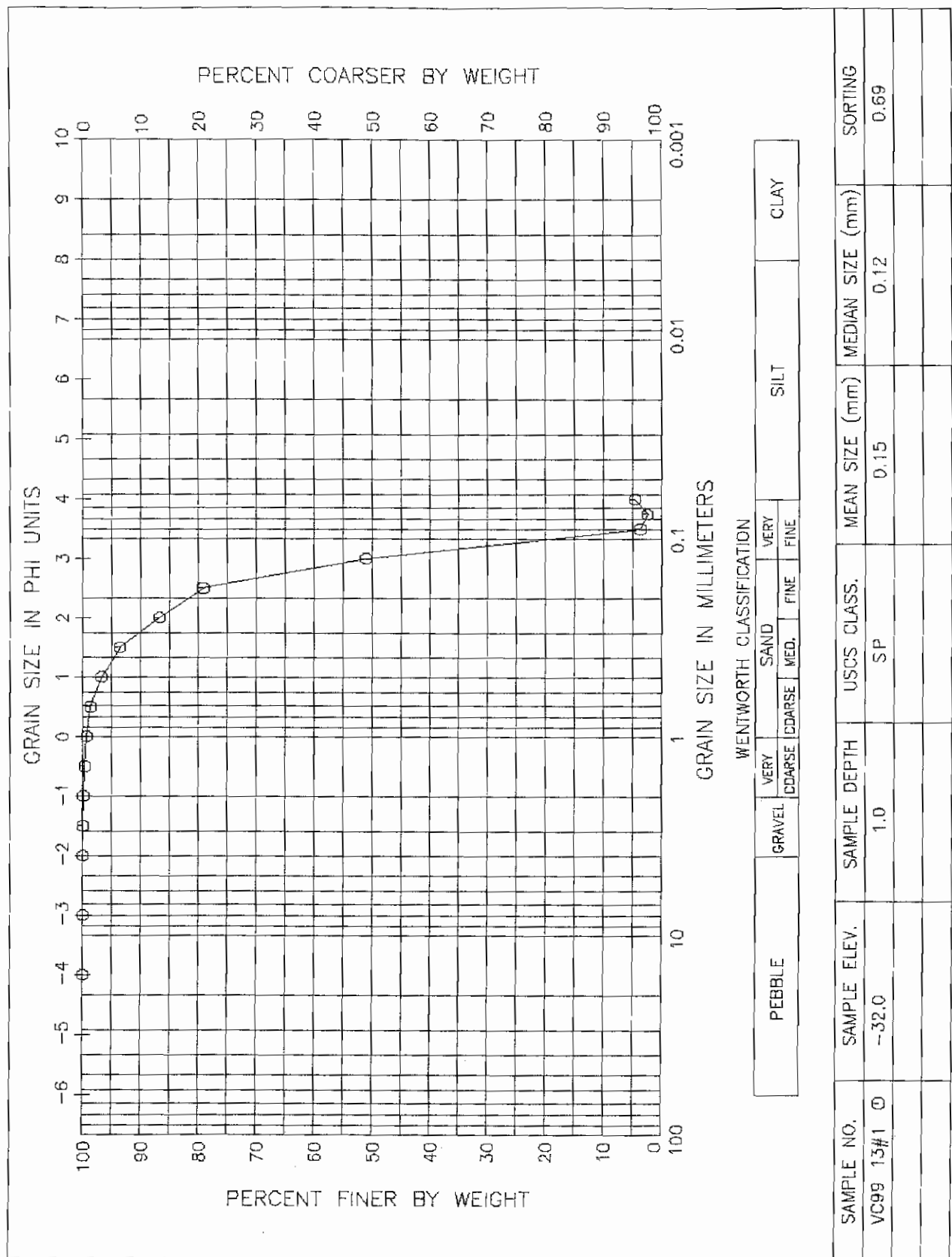
MEAN (PHI): 2.62	SORTING: 0.55
MEAN (mm): 0.16	MEDIAN (mm): 0.16

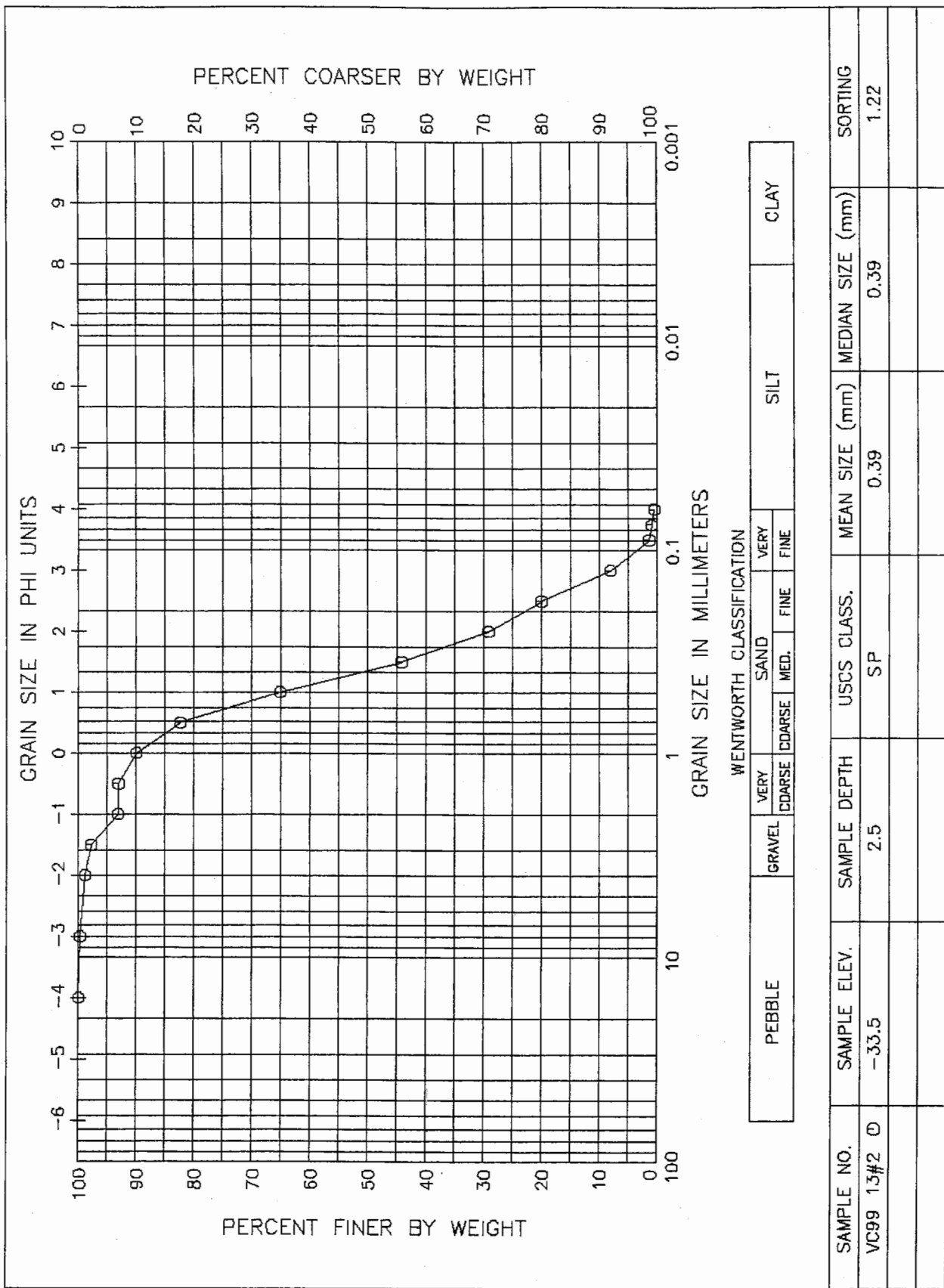
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

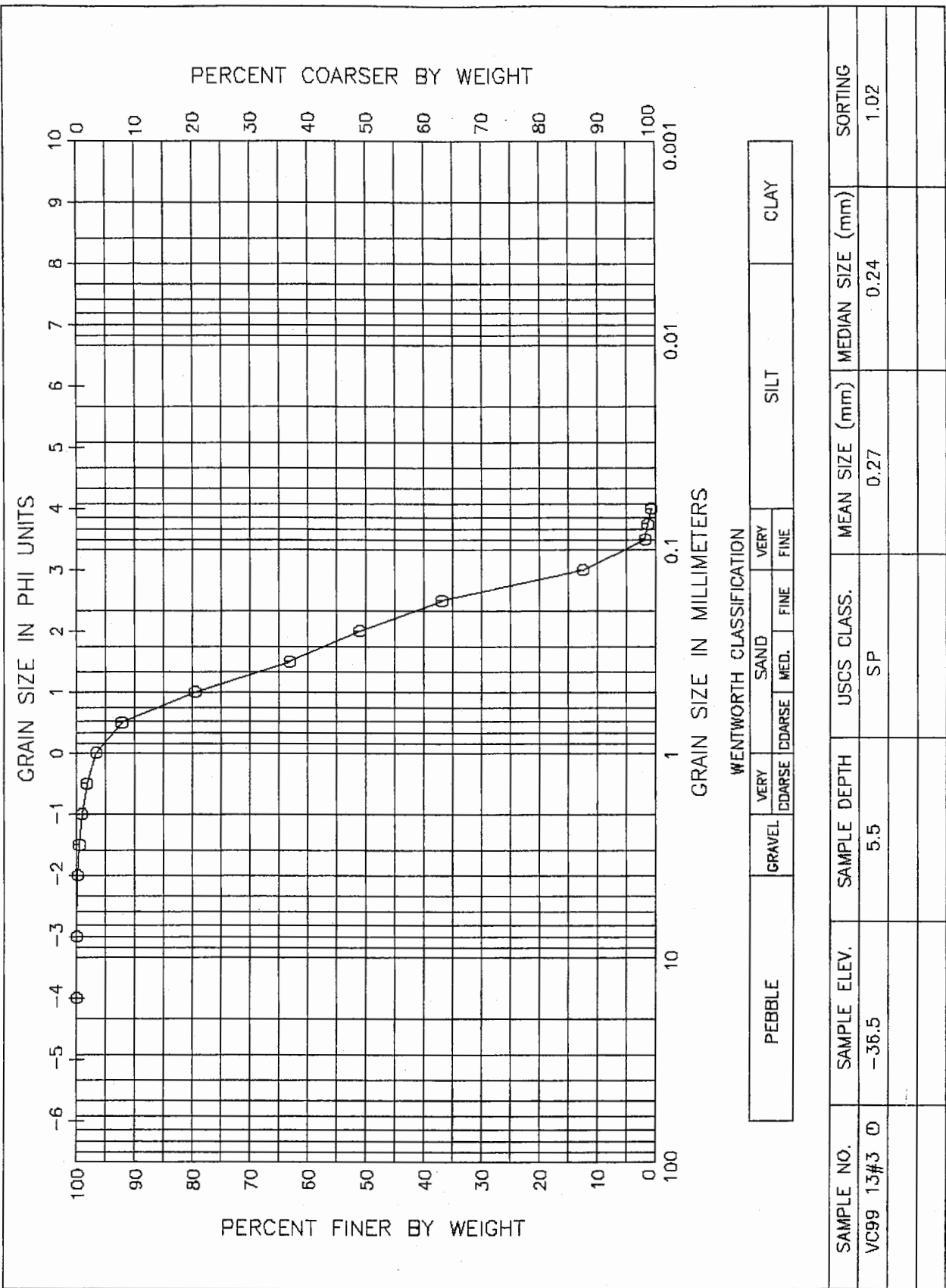
MOMENT METHOD

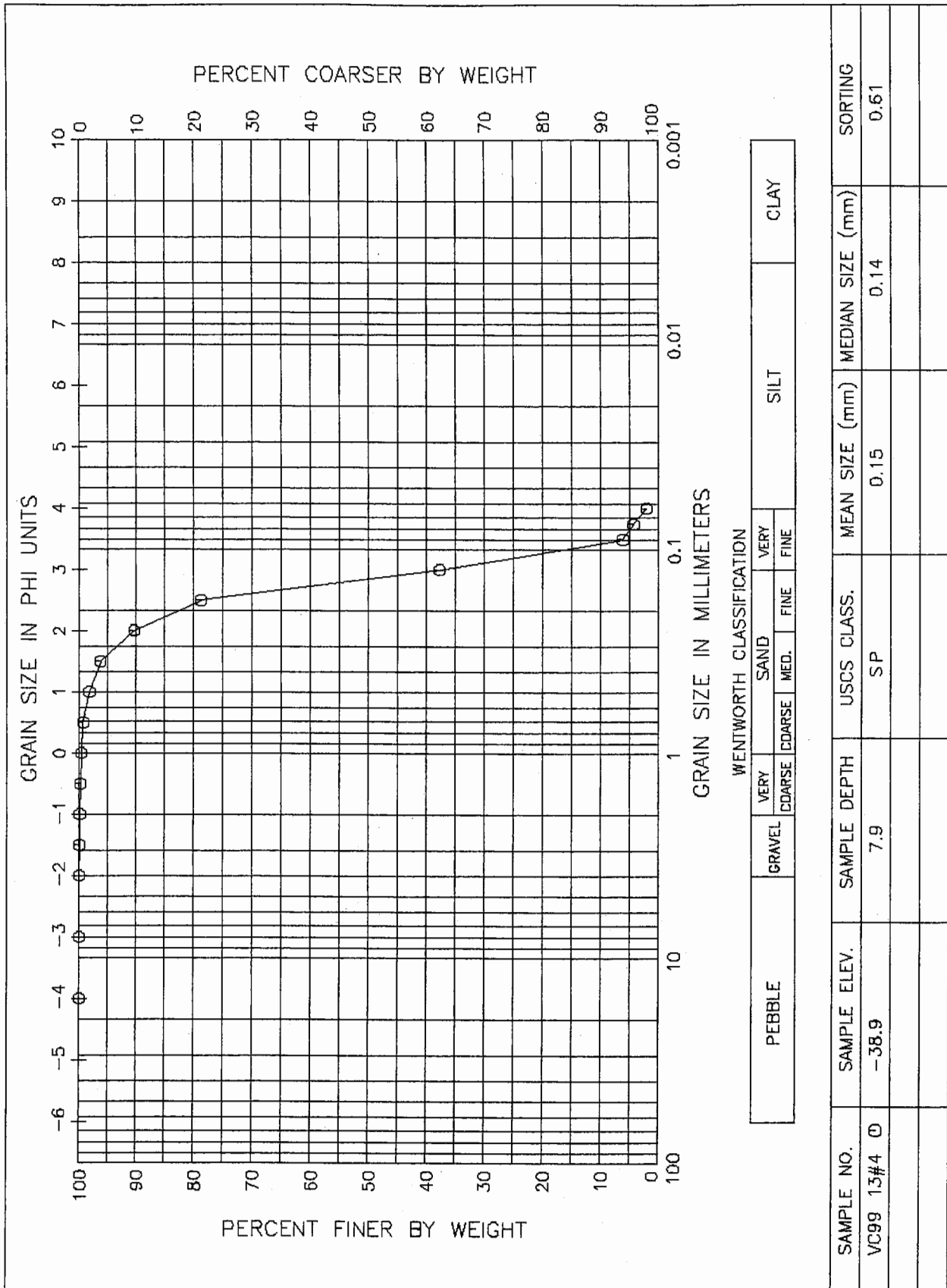
MEAN (PHI): 2.62	SORTING: 0.53
MEAN (mm): 0.16	

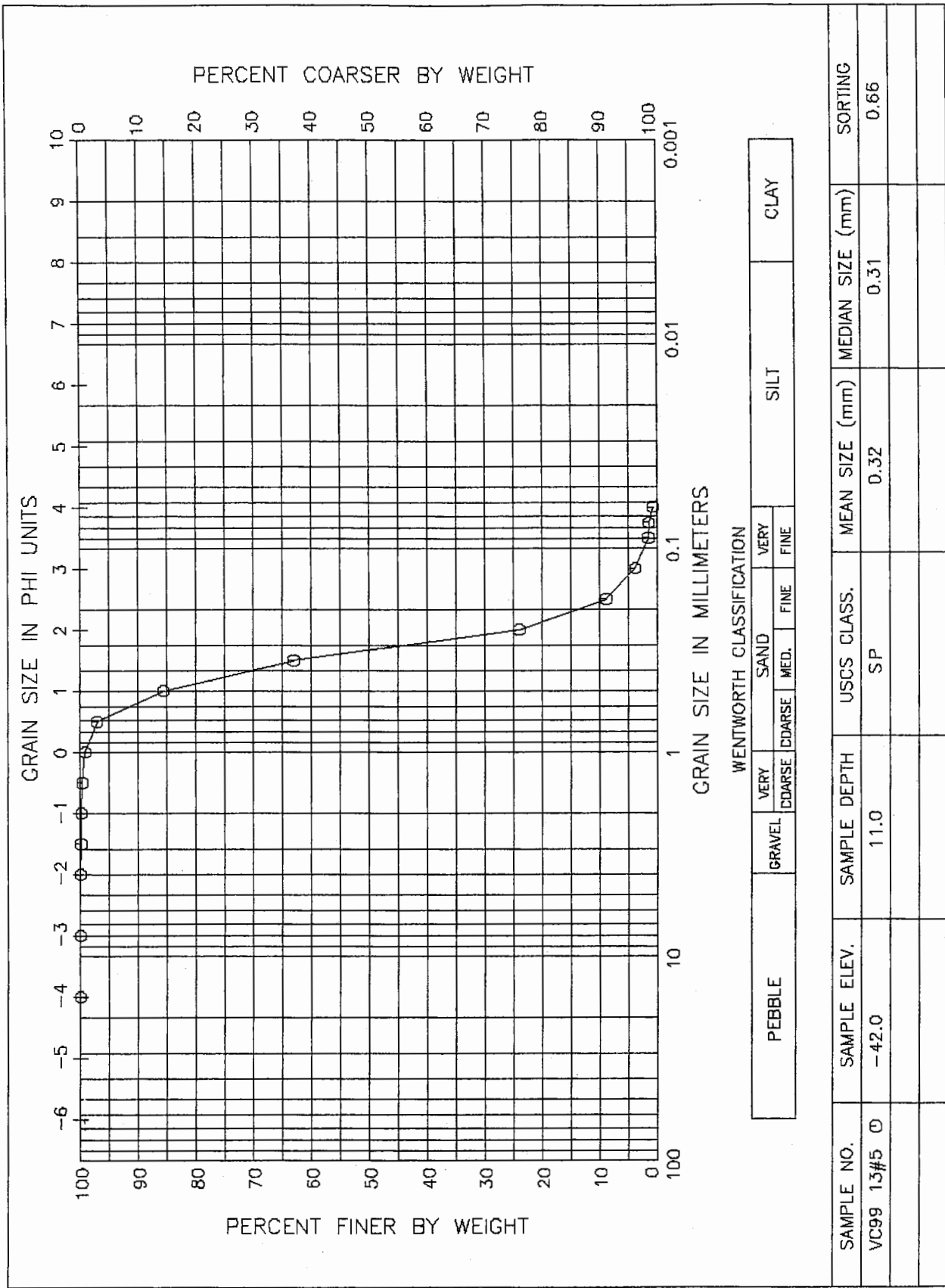
DATA FILE NAME: VC-99#13-10.TAB



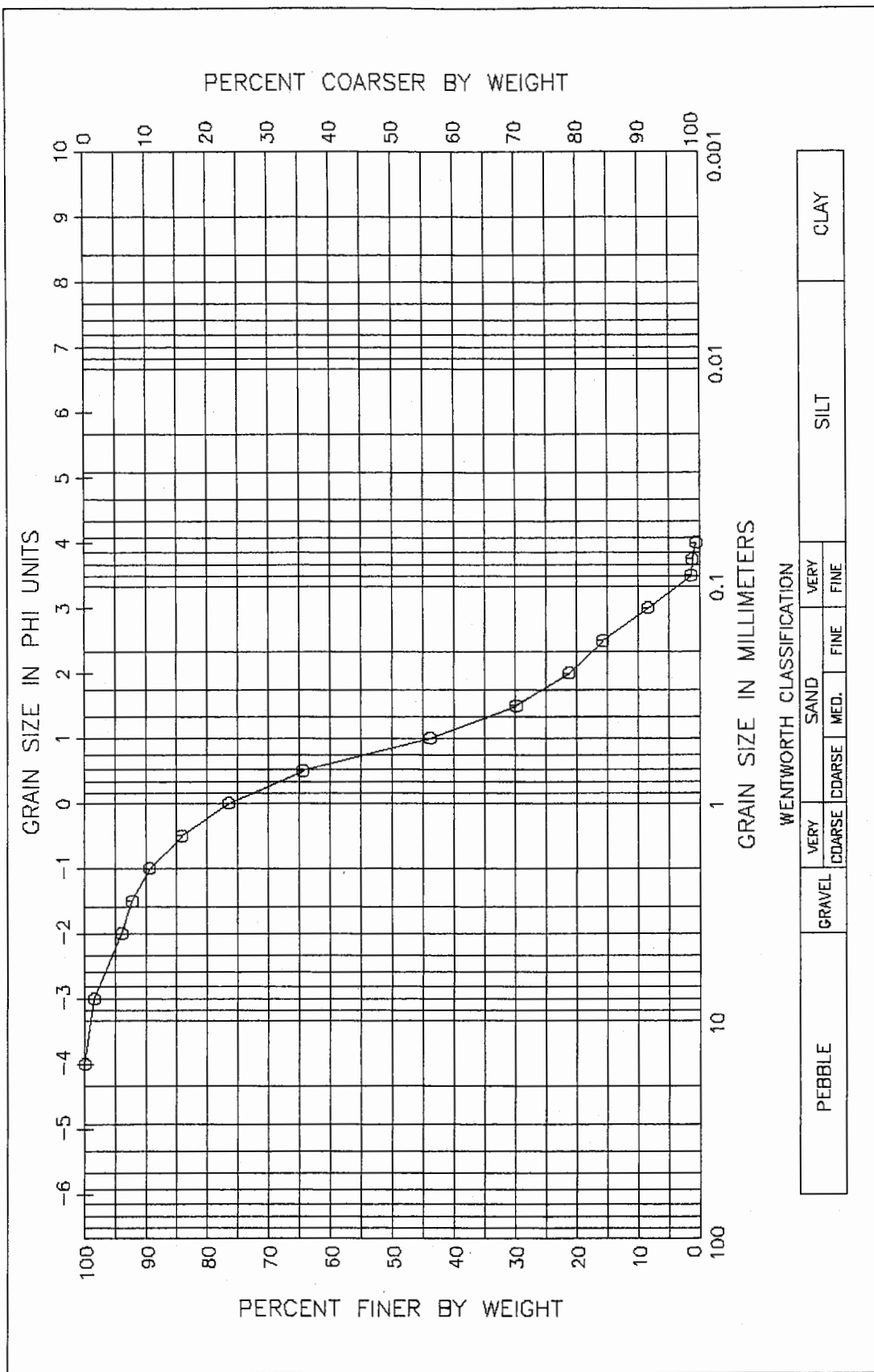




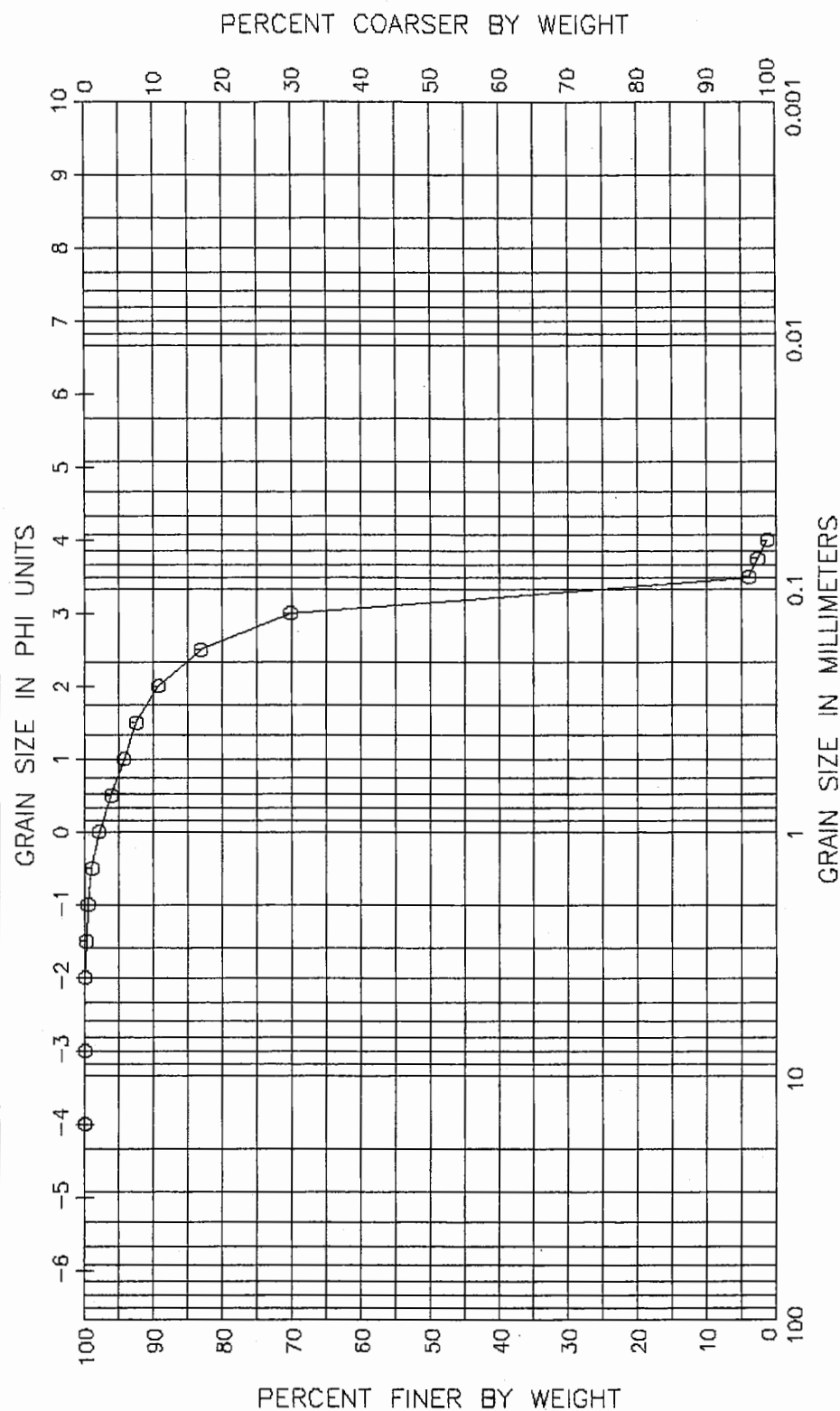




GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

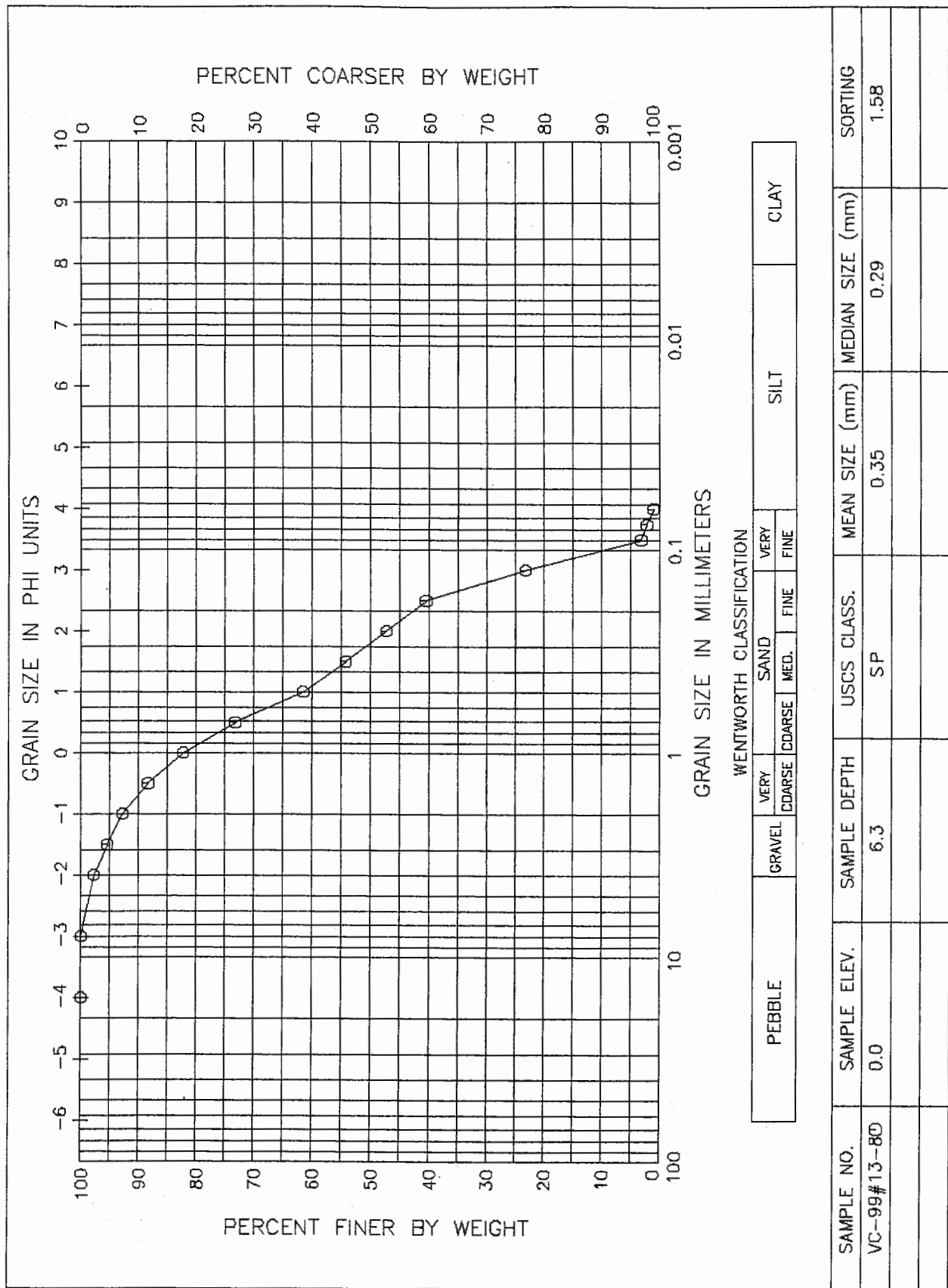


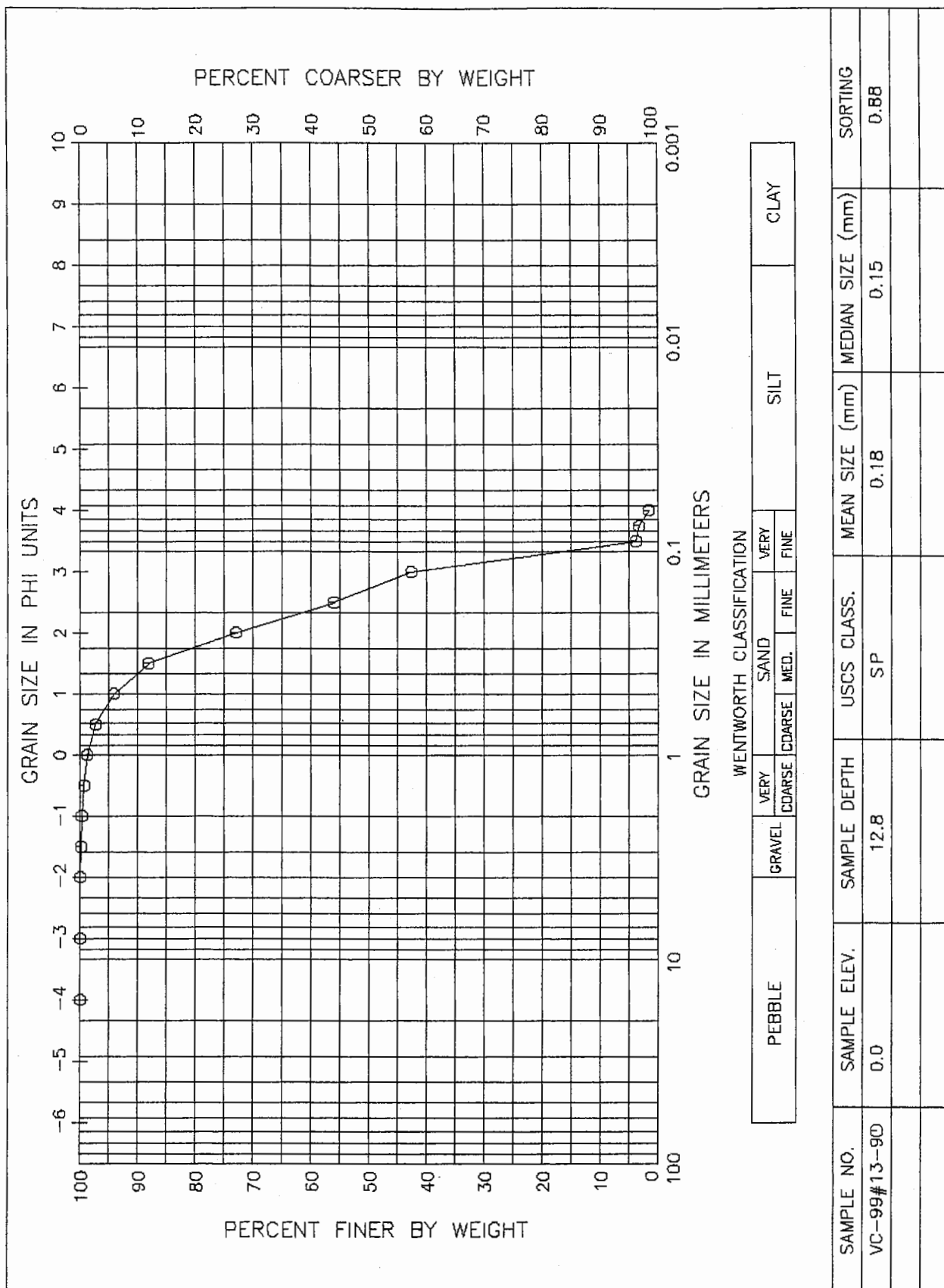
SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC-99#13-60	0.0	14.5	SP	0.57	0.55	1.50



SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC-99#13-70	0.0	4.5	SP	0.14	0.11	0.84

GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH





GRAIN SIZE DISTRIBUTION CURVE
TOWN OF PALM BEACH

