

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 7-1-99

SAMPLE NO.: VC99-90 #1  
SAMPLE ELEV. (FT. NGVD): -39.7  
SAMPLE DEPTH (FT.): 1.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 207.84  
SAMPLE WEIGHT AFTER WASH (GRAMS): 205.09

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	2.23	1.07	98.93
5	-2.00	4.000	3.23	1.55	98.45
7	-1.50	2.800	3.80	1.83	98.17
10	-1.00	2.000	4.62	2.22	97.78
14	-0.50	1.400	5.54	2.67	97.33
18	0.00	1.000	6.69	3.22	96.78
25	0.50	0.710	8.51	4.09	95.91
35	1.00	0.500	11.47	5.52	94.48
45	1.50	0.355	15.15	7.29	92.71
60	2.00	0.250	23.48	11.30	88.70
80	2.50	0.180	51.98	25.01	74.99
120	3.00	0.125	163.20	78.52	21.48
170	3.50	0.090	196.04	94.32	5.68
200	3.75	0.075	205.03	98.65	1.35
230	4.00	0.063	206.43	99.32	0.68
PAN			207.84	100.00	0.00

PHI(5): 0.82 PHI(16): 2.17 PHI(25): 2.50  
PHI(50): 2.73 PHI(75): 2.97 PHI(84): 3.17  
PHI(95): 3.54

SIEVE LOSS(g): 0.00 SILT/CLAY: 1.35%  
SKEWNESS: -1.108 KURTOSIS: 2.386

GRAPHIC METHOD

MEAN (PHI): 2.49 SORTING: 0.50  
MEAN (mm): 0.18 MEDIAN (mm): 0.15  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.53 SORTING: 1.02  
MEAN (mm): 0.17

DATA FILE NAME: VC99-90#1.TAB

## GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW

ON: 7-1-99

SAMPLE NO.: VC99-90 #2

SAMPLE ELEV. (FT. NGVD): -41.7

SAMPLE DEPTH (FT.): -3.0

SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 155.84

SAMPLE WEIGHT AFTER WASH (GRAMS): 153.42

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	6.33	4.06	95.94
5	-2.00	4.000	11.44	7.34	92.66
7	-1.50	2.800	14.28	9.16	90.84
10	-1.00	2.000	17.24	11.06	88.94
14	-0.50	1.400	20.25	12.99	87.01
18	0.00	1.000	23.14	14.85	85.15
25	0.50	0.710	27.01	17.33	82.67
35	1.00	0.500	32.21	20.67	79.33
45	1.50	0.355	37.82	24.27	75.73
60	2.00	0.250	47.60	30.54	69.46
80	2.50	0.180	70.86	45.47	54.53
120	3.00	0.125	130.76	83.91	16.09
170	3.50	0.090	149.71	96.07	3.93
200	3.75	0.075	153.29	98.36	1.64
230	4.00	0.063	154.61	99.21	0.79
PAN			155.84	100.00	0.00

PHI(5): -2.71

PHI(16): 0.23

PHI(25): 1.56

PHI(50): 2.56

PHI(75): 2.88

PHI(84): 3.00

PHI(95): 3.46

SIEVE LOSS(g): 0.00

SILT/CLAY: 1.64%

SKEWNESS: -1.578

KURTOSIS: 1.907

## GRAPHIC METHOD

MEAN (PHI): 1.31

SORTING: 1.39

MEAN (mm): 0.40

MEDIAN (mm): 0.17

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

## MOMENT METHOD

MEAN (PHI): 1.81

SORTING: 1.80

MEAN (mm): 0.29

DATA FILE NAME: VC99-90#2.TAB

## GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: RW ON: 7-1-99

SAMPLE NO.: VC99-90 #3  
SAMPLE ELEV. (FT. NGVD): -46.7  
SAMPLE DEPTH (FT.): 8.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 224.65  
SAMPLE WEIGHT AFTER WASH (GRAMS): 220.70

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	0.30	0.13	99.87
7	-1.50	2.800	0.38	0.17	99.83
10	-1.00	2.000	0.74	0.33	99.67
14	-0.50	1.400	1.26	0.56	99.44
18	0.00	1.000	1.81	0.81	99.19
25	0.50	0.710	2.85	1.27	98.73
35	1.00	0.500	4.70	2.09	97.91
45	1.50	0.355	7.93	3.53	96.47
60	2.00	0.250	16.59	7.38	92.62
80	2.50	0.180	55.67	24.78	75.22
120	3.00	0.125	179.55	79.92	20.08
170	3.50	0.090	219.51	97.71	2.29
200	3.75	0.075	220.43	98.12	1.88
230	4.00	0.063	222.59	99.09	0.91
PAN			224.63	99.99	0.01

PHI(5): 1.69 PHI(16): 2.25 PHI(25): 2.50  
PHI(50): 2.73 PHI(75): 2.96 PHI(84): 3.11  
PHI(95): 3.42

SIEVE LOSS(g): 0.02 SILT/CLAY: 1.88%  
SKEWNESS: -0.396 KURTOSIS: 1.567

## GRAPHIC METHOD

MEAN (PHI): 2.64 SORTING: 0.43  
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: VC99-90#3.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 7-1-99

SAMPLE NO.: VC99-90 #4  
SAMPLE ELEV. (FT. NGVD): -52.7  
SAMPLE DEPTH (FT.): 14.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 143.03  
SAMPLE WEIGHT AFTER WASH (GRAMS): 140.84

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	2.64	1.85	98.15
5	-2.00	4.000	3.96	2.77	97.23
7	-1.50	2.800	4.87	3.40	96.60
10	-1.00	2.000	6.22	4.35	95.65
14	-0.50	1.400	8.20	5.73	94.27
18	0.00	1.000	10.97	7.67	92.33
25	0.50	0.710	15.17	10.61	89.39
35	1.00	0.500	22.54	15.76	84.24
45	1.50	0.355	32.41	22.66	77.34
60	2.00	0.250	47.48	33.20	66.80
80	2.50	0.180	77.98	54.52	45.48
120	3.00	0.125	129.05	90.23	9.77
170	3.50	0.090	140.48	98.22	1.78
200	3.75	0.075	140.71	98.38	1.62
230	4.00	0.063	141.89	99.21	0.79
PAN			143.03	100.00	0.00

PHI(5): -0.76 PHI(16): 1.02 PHI(25): 1.61  
PHI(50): 2.39 PHI(75): 2.79 PHI(84): 2.91  
PHI(95): 3.30

SIEVE LOSS(g): 0.00 SILT/CLAY: 1.62%  
SKEWNESS: -1.189 KURTOSIS: 1.416

GRAPHIC METHOD

MEAN (PHI): 1.77 SORTING: 0.95  
MEAN (mm): 0.29 MEDIAN (mm): 0.19  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.97 SORTING: 1.32  
MEAN (mm): 0.26

DATA FILE NAME: VC99-90#4.TAB

GRADATION ANALYSIS REPORT  
TOWN OF PALM BEACH  
TESTED BY: RW ON: 7-1-99

SAMPLE NO.: VC99-90 #5  
SAMPLE ELEV. (FT. NGVD): -56.7  
SAMPLE DEPTH (FT.): 18.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 233.53  
SAMPLE WEIGHT AFTER WASH (GRAMS): 230.79

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	0.68	0.29	99.71
5	-2.00	4.000	2.09	0.89	99.11
7	-1.50	2.800	3.53	1.51	98.49
10	-1.00	2.000	6.15	2.63	97.37
14	-0.50	1.400	10.19	4.36	95.64
18	0.00	1.000	14.63	6.26	93.74
25	0.50	0.710	21.91	9.38	90.62
35	1.00	0.500	37.00	15.84	84.16
45	1.50	0.355	58.42	25.02	74.98
60	2.00	0.250	95.00	40.68	59.32
80	2.50	0.180	141.45	60.57	39.43
120	3.00	0.125	206.15	88.28	11.72
170	3.50	0.090	220.48	94.41	5.59
200	3.75	0.075	230.48	98.69	1.31
230	4.00	0.063	231.89	99.30	0.70
PAN			233.51	99.99	0.01

PHI(5): -0.33      PHI(16): 1.01      PHI(25): 1.50  
PHI(50): 2.23      PHI(75): 2.76      PHI(84): 2.92  
PHI(95): 3.53

SIEVE LOSS(g): 0.02      SILT/CLAY: 1.31%  
SKEWNESS: -0.662      KURTOSIS: 1.257

GRAPHIC METHOD

MEAN (PHI): 1.87      SORTING: 0.96  
MEAN (mm): 0.27      MEDIAN (mm): 0.21  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 1.98      SORTING: 1.14  
MEAN (mm): 0.25

DATA FILE NAME: VC99-90#5.TAB

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

SAMPLE NO.: VC-99#90-6  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 4.0  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 105.96  
SAMPLE WEIGHT AFTER WASH (GRAMS): 103.37

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	0.08	99.92
10	-1.00	2.000	0.12	0.11	99.89
14	-0.50	1.400	0.22	0.21	99.79
18	0.00	1.000	0.36	0.34	99.66
25	0.50	0.710	0.64	0.60	99.40
35	1.00	0.500	1.22	1.15	98.85
45	1.50	0.355	2.14	2.02	97.98
60	2.00	0.250	5.66	5.34	94.66
80	2.50	0.180	18.86	17.80	82.20
120	3.00	0.125	81.17	76.60	23.40
170	3.50	0.090	102.93	97.14	2.86
200	3.75	0.075	103.33	97.52	2.48
230	4.00	0.063	104.65	98.77	1.23
PAN			105.96	100.00	0.00

PHI(5): 1.95 PHI(16): 2.43 PHI(25): 2.56  
PHI(50): 2.77 PHI(75): 2.99 PHI(84): 3.18  
PHI(95): 3.45

SIEVE LOSS(g): 0.00 SILT/CLAY: 2.48%  
SKEWNESS: -0.201 KURTOSIS: 1.445

GRAPHIC METHOD

MEAN (PHI): 2.76 SORTING: 0.38  
MEAN (mm): 0.15 MEDIAN (mm): 0.15  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.73 SORTING: 0.49  
MEAN (mm): 0.15

DATA FILE NAME: VC-99#90-6.TAB

## GRADATION ANALYSIS REPORT

TOWN OF PALM BEACH

TESTED BY: ID ON: 10/99

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SAMPLE NO.: VC-99#90-7

SAMPLE ELEV. (FT. NGVD): 0.0

SAMPLE DEPTH (FT.): 5.3

SAMPLE TYPE: CORE SAMPLE  
-----USCS DESCRIPTION: SP  
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DRY SAMPLE WEIGHT (GRAMS): 98.88

SAMPLE WEIGHT AFTER WASH (GRAMS): 96.89  
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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	0.22	0.22	99.78
5	-2.00	4.000	2.68	2.71	97.29
7	-1.50	2.800	3.49	3.53	96.47
10	-1.00	2.000	4.78	4.83	95.17
14	-0.50	1.400	6.16	6.23	93.77
18	0.00	1.000	7.40	7.48	92.52
25	0.50	0.710	9.31	9.42	90.58
35	1.00	0.500	12.40	12.54	87.46
45	1.50	0.355	16.23	16.41	83.59
60	2.00	0.250	24.26	24.53	75.47
80	2.50	0.180	42.41	42.89	57.11
120	3.00	0.125	79.67	80.57	19.43
170	3.50	0.090	96.45	97.54	2.46
200	3.75	0.075	96.76	97.86	2.14
230	4.00	0.063	97.85	98.95	1.05
PAN			98.86	99.98	0.02

  
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PHI(5): -0.94

PHI(16): 1.45

PHI(25): 2.01

PHI(50): 2.59

PHI(75): 2.93

PHI(84): 3.10

PHI(95): 3.43  
-----

SIEVE LOSS(g): 0.02

SILT/CLAY: 2.14%

SKEWNESS: -1.635

KURTOSIS: 1.959  
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## GRAPHIC METHOD

MEAN (PHI): 1.93

SORTING: 0.83

MEAN (mm): 0.26

MEDIAN (mm): 0.17

NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD  
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## MOMENT METHOD

MEAN (PHI): 2.18

SORTING: 1.28

MEAN (mm): 0.22  
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DATA FILE NAME: VC-99#90-7.TAB

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

SAMPLE NO.: VC-99#90-8  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 6.6  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 106.65  
SAMPLE WEIGHT AFTER WASH (GRAMS): 103.77

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	0.00	0.00	100.00
5	-2.00	4.000	0.00	0.00	100.00
7	-1.50	2.800	0.08	0.08	99.92
10	-1.00	2.000	0.25	0.23	99.77
14	-0.50	1.400	0.41	0.38	99.62
18	0.00	1.000	0.68	0.64	99.36
25	0.50	0.710	1.16	1.09	98.91
35	1.00	0.500	1.93	1.81	98.19
45	1.50	0.355	3.19	2.99	97.01
60	2.00	0.250	7.79	7.30	92.70
80	2.50	0.180	22.91	21.48	78.52
120	3.00	0.125	83.90	78.67	21.33
170	3.50	0.090	103.44	96.99	3.01
200	3.75	0.075	103.74	97.27	2.73
230	4.00	0.063	105.21	98.65	1.35
PAN			106.65	100.00	0.00

PHI(5): 1.73      PHI(16): 2.31      PHI(25): 2.53  
PHI(50): 2.75      PHI(75): 2.97      PHI(84): 3.15  
PHI(95): 3.45

SIEVE LOSS(g): 0.00      SILT/CLAY: 2.73%  
SKEWNESS: -0.382      KURTOSIS: 1.606

GRAPHIC METHOD

MEAN (PHI): 2.68      SORTING: 0.42  
MEAN (mm): 0.16      MEDIAN (mm): 0.15  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.68      SORTING: 0.56  
MEAN (mm): 0.16

DATA FILE NAME: VC-99#90-8.TAB



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

SAMPLE NO.: VC-99#90-9  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 10.8  
SAMPLE TYPE: CORE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 100.25  
SAMPLE WEIGHT AFTER WASH (GRAMS): 98.42

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	0.54	0.54	99.46
7	-1.50	2.800	0.77	0.77	99.23
10	-1.00	2.000	1.23	1.23	98.77
14	-0.50	1.400	1.80	1.80	98.20
18	0.00	1.000	2.60	2.59	97.41
25	0.50	0.710	4.10	4.09	95.91
35	1.00	0.500	7.10	7.08	92.92
45	1.50	0.355	10.79	10.76	89.24
60	2.00	0.250	19.60	19.55	80.45
80	2.50	0.180	40.61	40.51	59.49
120	3.00	0.125	85.06	84.85	15.15
170	3.50	0.090	98.19	97.95	2.05
200	3.75	0.075	98.38	98.13	1.87
230	4.00	0.063	99.32	99.07	0.93
PAN			100.24	99.99	0.01

PHI(5): 0.65 PHI(16): 1.80 PHI(25): 2.13  
PHI(50): 2.61 PHI(75): 2.89 PHI(84): 2.99  
PHI(95): 3.39

SIEVE LOSS(g): 0.01 SILT/CLAY: 1.87%  
SKEWNESS: -0.985 KURTOSIS: 1.477

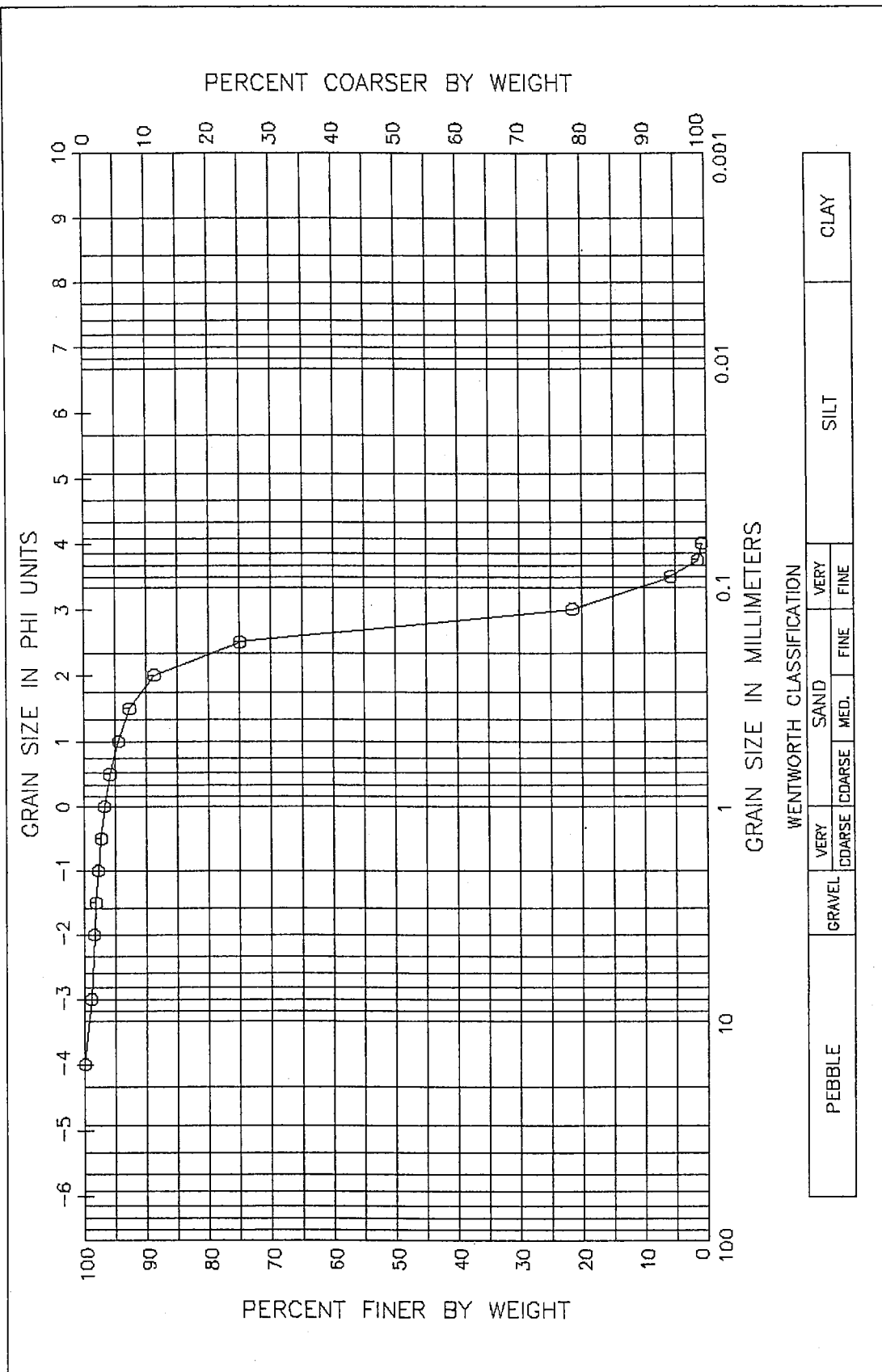
GRAPHIC METHOD

MEAN (PHI): 2.29 SORTING: 0.60  
MEAN (mm): 0.20 MEDIAN (mm): 0.16  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

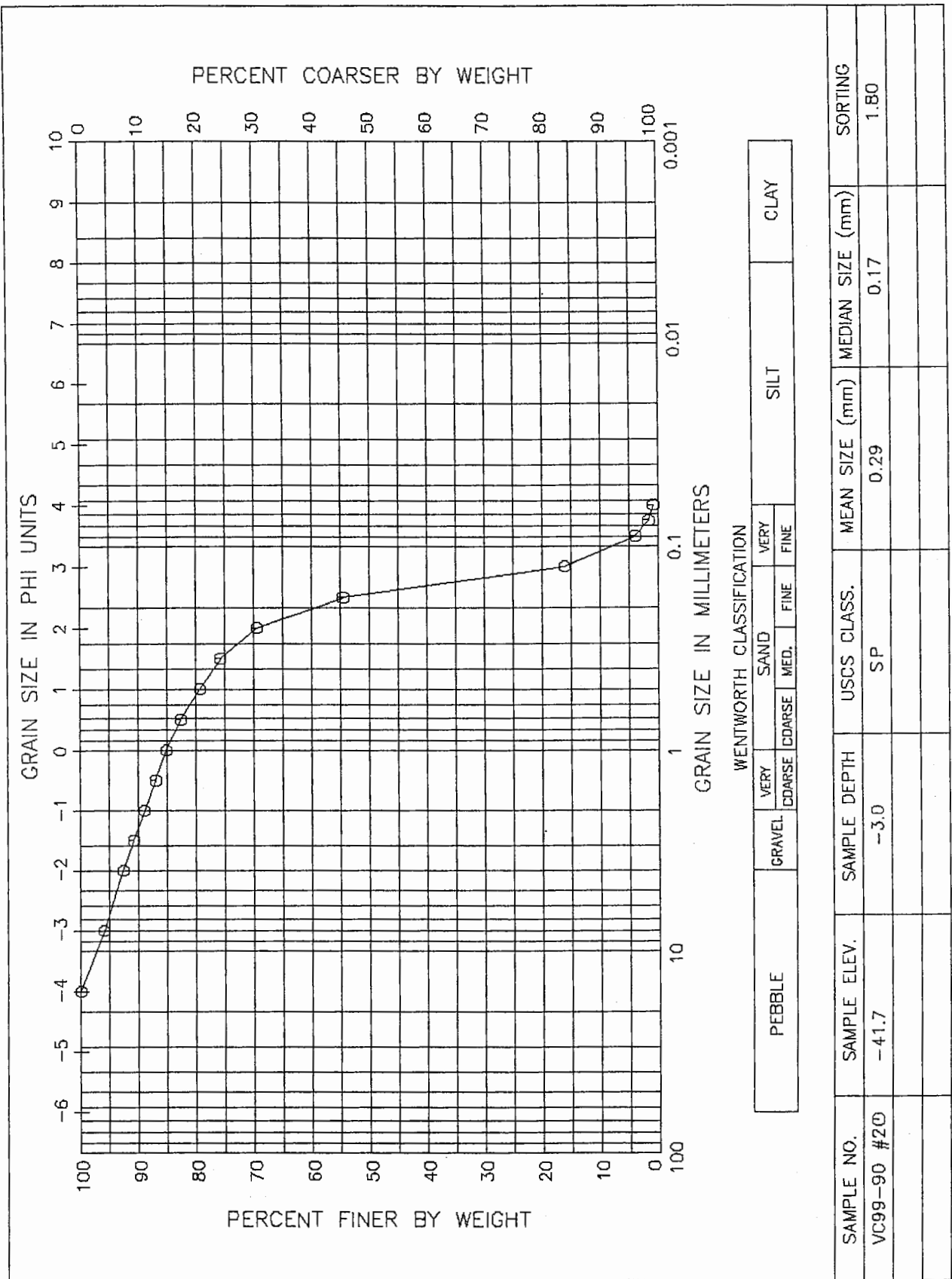
MEAN (PHI): 2.38 SORTING: 0.87  
MEAN (mm): 0.19

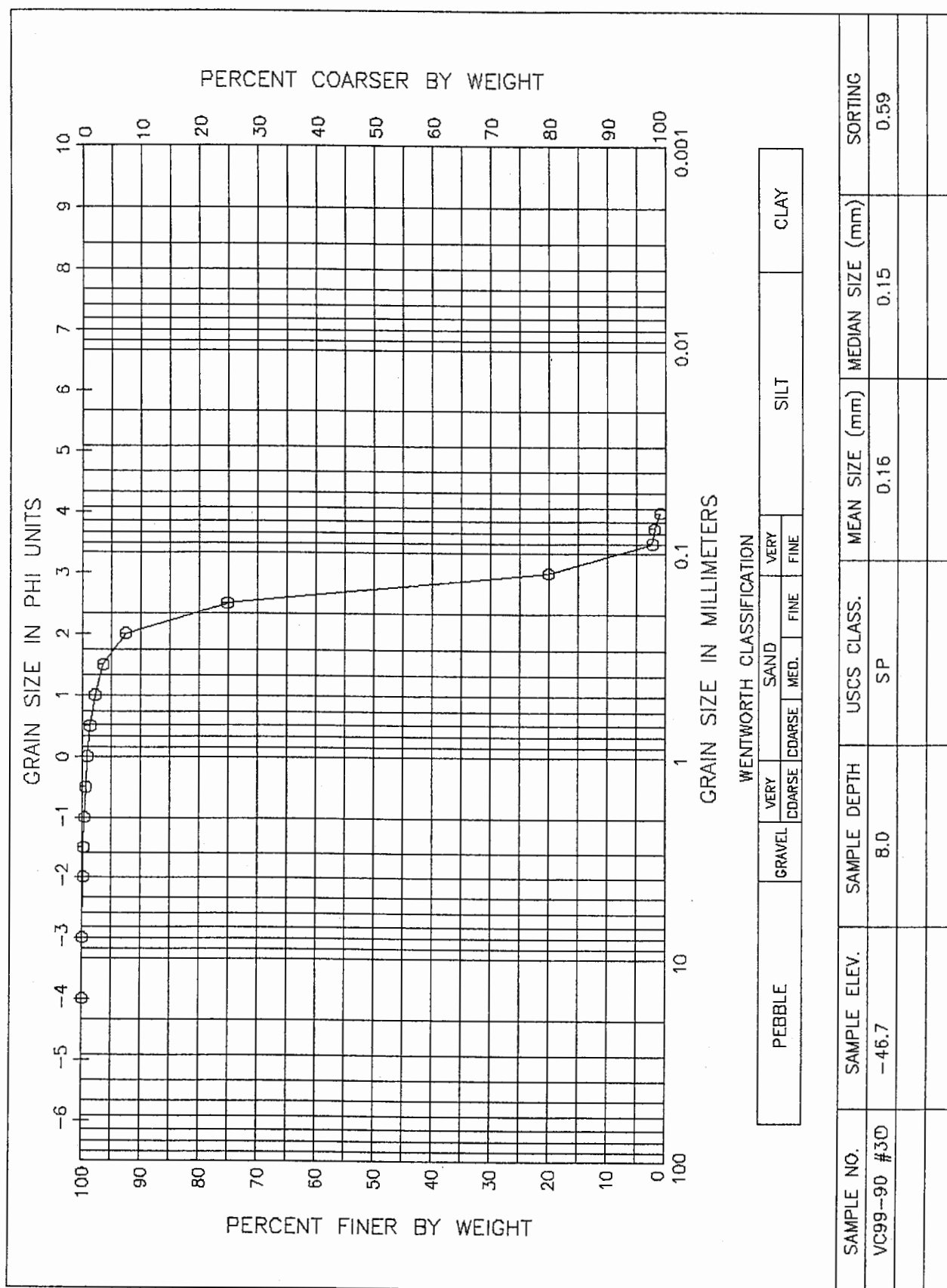
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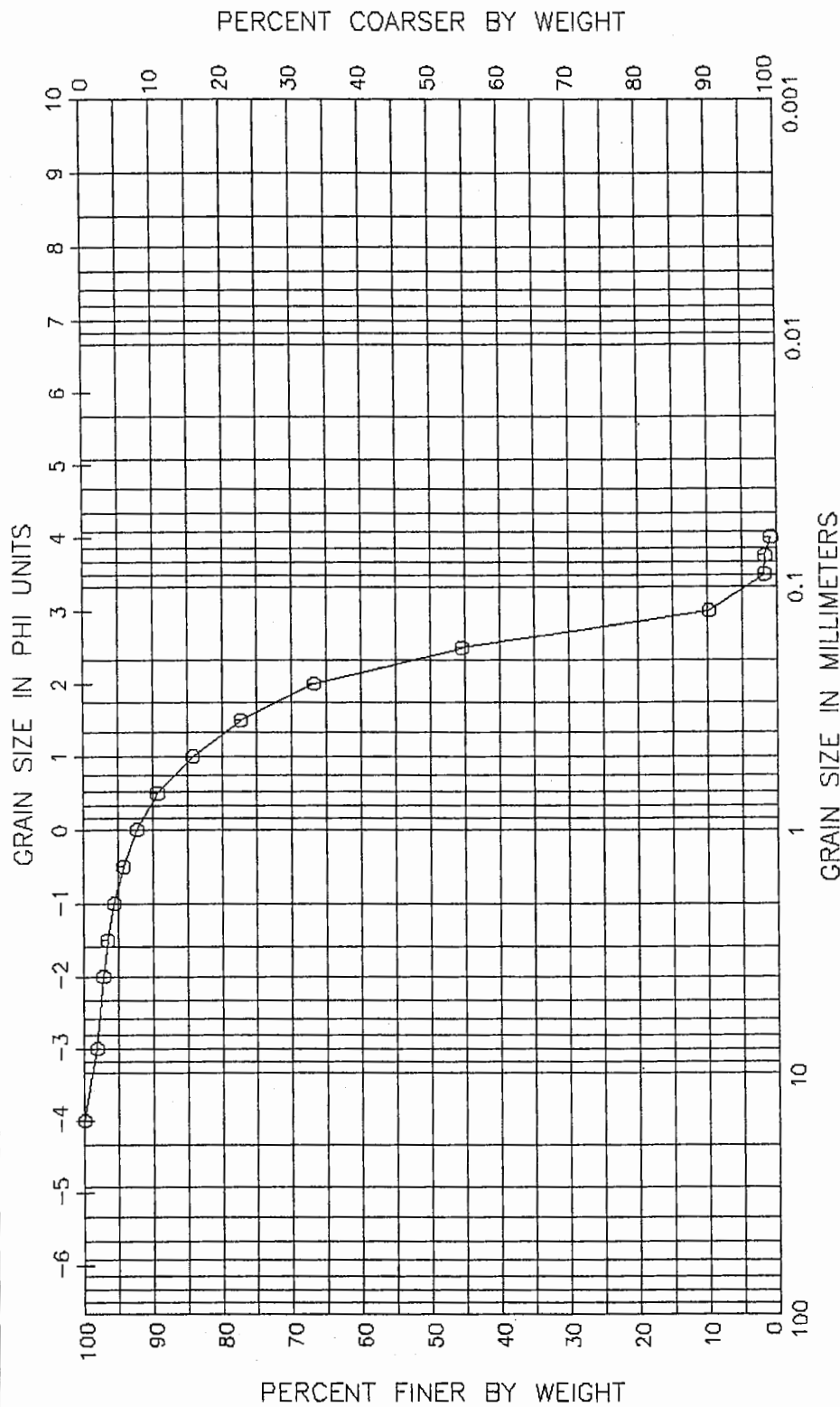


SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99-90 #10	-39.7	1.0	SP	0.17	0.15	1.02

GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH





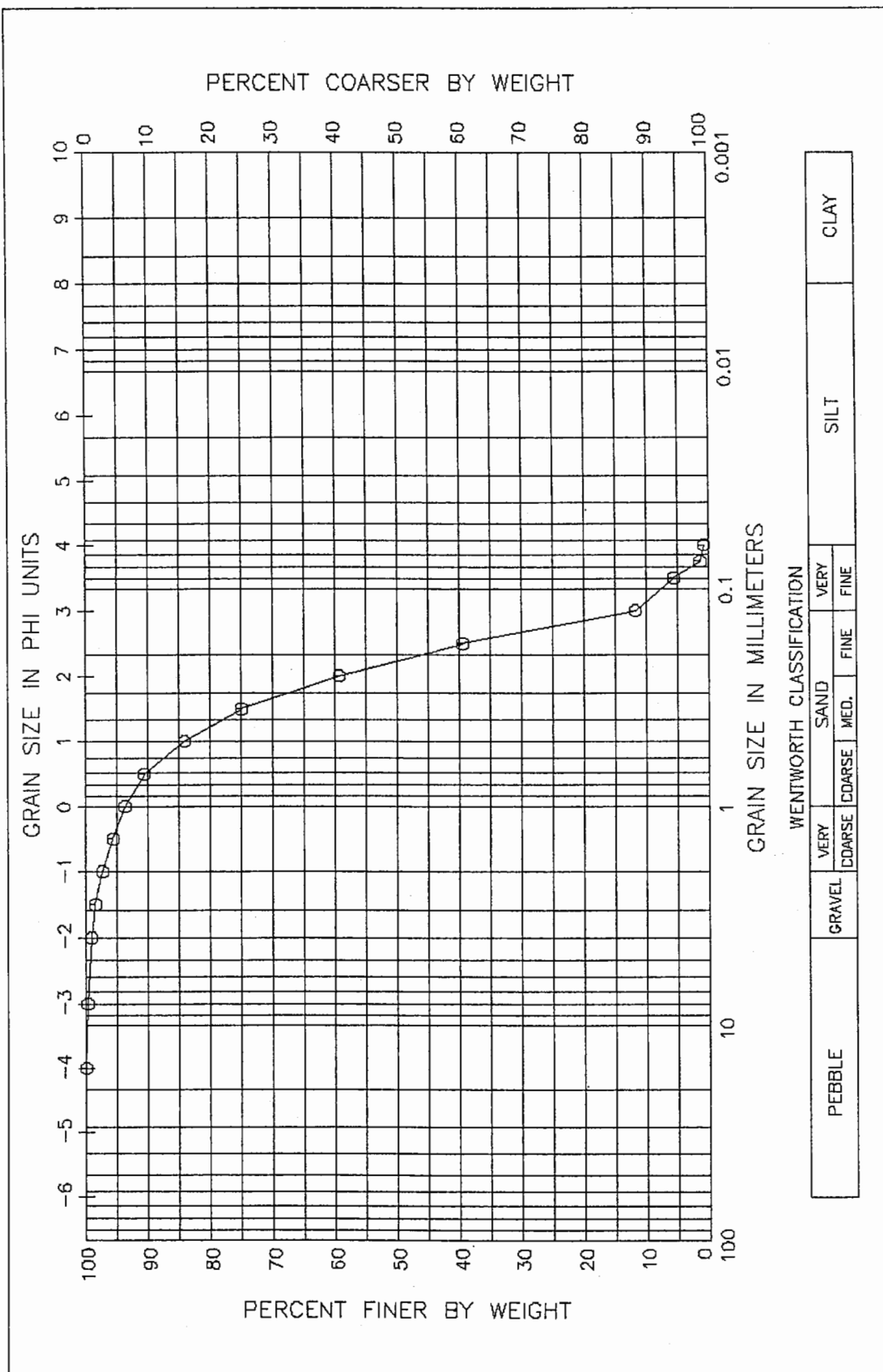


WENTWORTH CLASSIFICATION

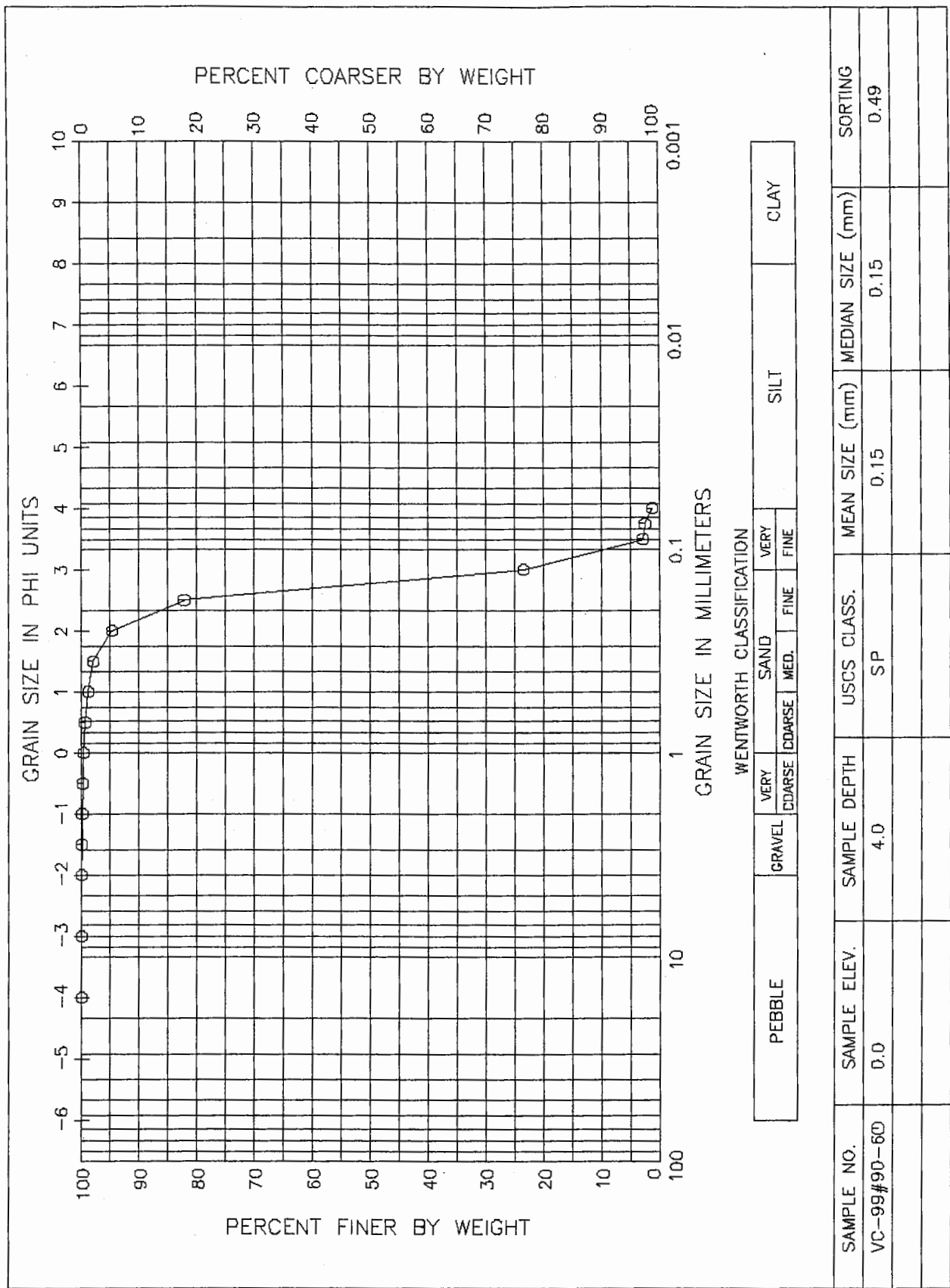
PEBBLE	GRAVEL	SAND				SILT		CLAY
		VERY COARSE	COARSE	MED.	FINE	VERY FINE	FINE	

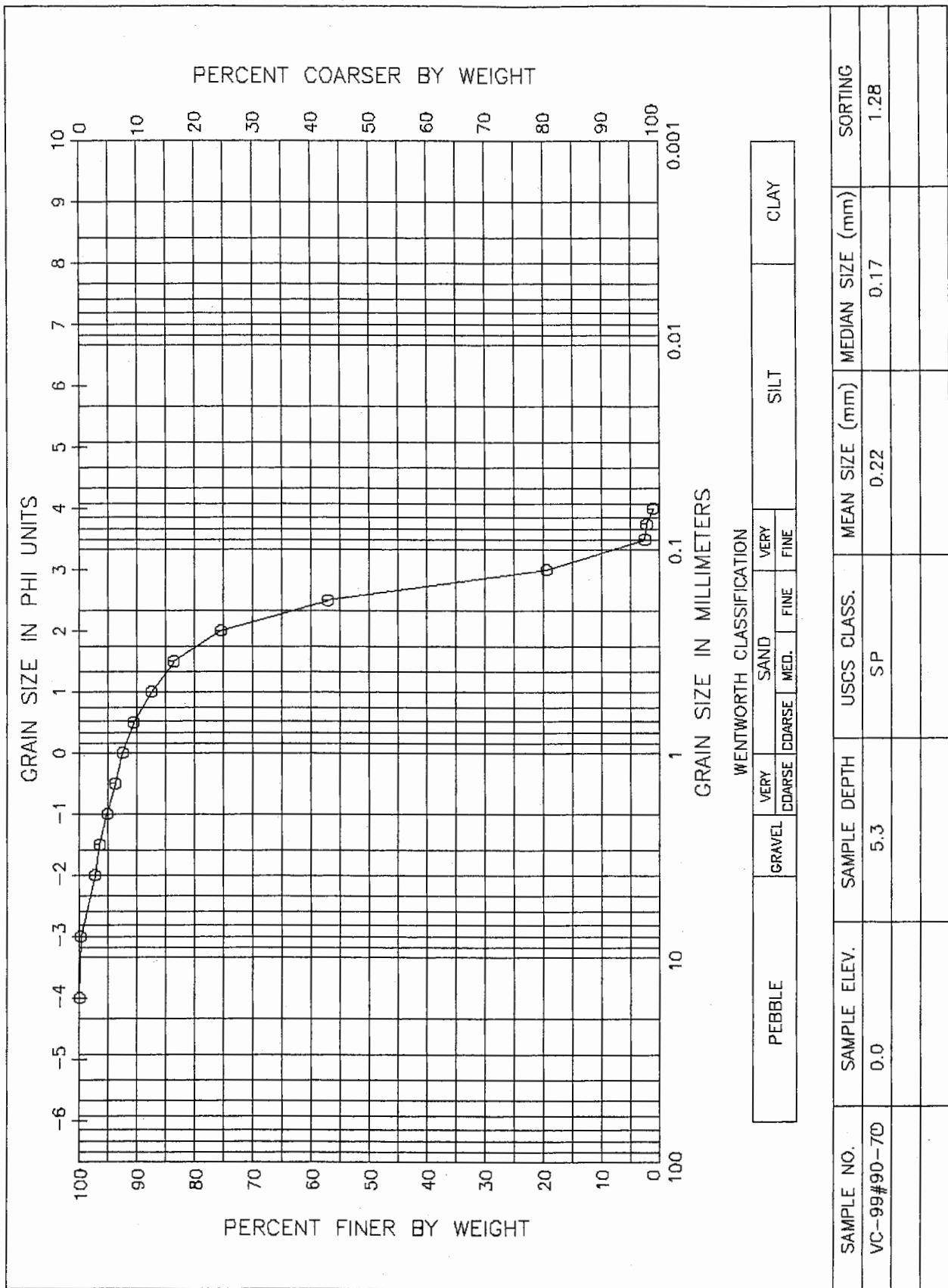
SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99-90 #40	-52.7	14.0	SP	0.26	0.19	1.32

GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH



SAMPLE NO.	SAMPLE ELEV.	SAMPLE DEPTH	USCS CLASS.	MEAN SIZE (mm)	MEDIAN SIZE (mm)	SORTING
VC99-90 #50	-56.7	18.0	SP	0.25	0.21	1.14





GRAIN SIZE DISTRIBUTION CURVE  
TOWN OF PALM BEACH



