

VIBRACORE LOG

| | | | |
|--|--|--|--|
| Project: <u>TOWN OF PALM BEACH</u> | | Core No: <u>11</u> | |
| Coordinates: N = <u>860461.6</u> E = <u>818640.7</u> | | Date: <u>12-16-87</u> Start Time <u>1731</u> End Time <u>1745</u> | |
| | | Water Depth <u>42'</u> NGVD Driller <u>M.L. CLARKE</u> <u>JEFF ANDREWS</u> Client Rep. <u>FRED KAUB</u> | |

| | Elev. | Depth | Legend | Description | Samp. No. | Remarks |
|--|-------|-------|--------|-------------------------|-----------|---------|
| Core Diam. <u>3.0"</u> Length of Barrel <u>20'</u> Penetration Depth <u>19'6"</u> Length Recovered <u>19'4"</u> Length Retained <u>19'4"</u> Remarks: <u>PENETRATION TIME 14 MIN</u> | | 0 | | GREY SAND (104R 6/1) | | |
| | | 5 | | | 3.0' | (SP) |
| | | 10 | | | 9.0' | (SP) |
| | | 15 | | | 14.6' | (SP) |
| Support Vessel <u>G.W. PIERCE</u> Positioning System <u>TRISPOUNDER</u> Positioning Remarks: | | | | | | |
| Weather <u>CLEAR</u> Wind Dir: <u>N-W</u> Est. Speed <u>15-20 K</u> Waves Dir: <u>NW</u> Height <u>1-3</u> Current Dir: <u>N/A</u> Est. Speed: | | | | | | |
| Analysis By: <u>FK</u> Date: <u>12-21-87</u> Analysis Method: <u>VISUAL LOG</u> <u>MECHANICAL SIEVE</u> | | | | SHELL LAYER | | |
| | | 20 | | SHELL LAYER | 18.0' | (SP) |

GRADATION ANALYSIS REPORT
PALM BEACH VIBRACORE SAMPLES DECEMBER 1987

FOR: X SOIL CLASSIFICATION X CORING SAMPLES BEACH SAMPLES CONCRETE AGGREGATES

ENVIRONMENTAL STATION NATURAL SOIL FILL SAMPLES PIT SAMPLES

| | | | |
|-------------------|------|-----|-----|
| CORE NO. | 10 | 11 | 11 |
| SAMPLE DEPTH (FT) | 19.0 | 3.0 | 9.0 |

| | | | |
|-------------------------|----|----|----|
| U.S.C.S. DESCRIPTION | SP | SP | SP |
|-------------------------|----|----|----|

| | | | |
|-----------------------|--------|--------|--------|
| DRY SAMPLE WT (GRAMS) | 235.12 | 263.25 | 210.10 |
| SAMPLE WT AFTER WASH | 231.56 | 259.35 | 205.48 |

| SIEVE SIZE | PHI SIZE | MESH SIZE (mm) | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | |
|---------------|-------------|-------------------|--------|--------|--------|---|--------|--------|--------|---|--------|--------|--------|---|
| 5 | -2.00 | 4 | 0.50 | 0.21 | 99.79 | ' | 0.09 | 0.03 | 99.97 | ' | 0.00 | 0.00 | 100.00 | ' |
| 7 | -1.50 | 2.8 | 0.98 | 0.42 | 99.58 | ' | 0.50 | 0.19 | 99.81 | ' | 0.02 | 0.01 | 99.99 | ' |
| 10 | -1.00 | 2 | 1.72 | 0.73 | 99.27 | ' | 1.15 | 0.44 | 99.56 | ' | 0.08 | 0.04 | 99.96 | ' |
| 14 | -0.50 | 1.4 | 2.19 | 0.93 | 99.07 | ' | 1.77 | 0.67 | 99.33 | ' | 0.17 | 0.08 | 99.92 | ' |
| 18 | 0.00 | 1 | 3.21 | 1.37 | 98.63 | ' | 2.62 | 1.00 | 99.00 | ' | 0.26 | 0.12 | 99.88 | ' |
| 25 | 0.50 | 0.71 | 4.26 | 1.81 | 98.19 | ' | 3.67 | 1.39 | 98.61 | ' | 0.37 | 0.18 | 99.82 | ' |
| 35 | 1.00 | 0.5 | 6.89 | 2.93 | 97.07 | ' | 5.82 | 2.21 | 97.79 | ' | 0.80 | 0.38 | 99.62 | ' |
| 45 | 1.50 | 0.355 | 18.07 | 7.69 | 92.31 | ' | 14.92 | 5.67 | 94.33 | ' | 2.19 | 1.04 | 98.96 | ' |
| 60 | 2.00 | 0.25 | 52.03 | 22.13 | 77.87 | ' | 57.77 | 21.94 | 78.06 | ' | 7.15 | 3.40 | 96.60 | ' |
| 80 | 2.50 | 0.18 | 144.89 | 61.62 | 38.38 | ' | 191.29 | 72.66 | 27.34 | ' | 93.89 | 44.69 | 55.31 | ' |
| 120 | 3.00 | 0.125 | 204.51 | 86.98 | 13.02 | ' | 241.60 | 91.78 | 8.22 | ' | 168.26 | 80.09 | 19.91 | ' |
| 170 | 3.50 | 0.09 | 230.52 | 98.04 | 1.96 | ' | 258.62 | 98.24 | 1.76 | ' | 203.56 | 96.89 | 3.11 | ' |
| 200 | 3.75 | 0.075 | 231.08 | 98.28 | 1.72 | ' | 259.26 | 98.48 | 1.52 | ' | 204.92 | 97.53 | 2.47 | ' |
| 230 | 4.00 | 0.063 | 231.31 | 98.38 | 1.62 | ' | 259.29 | 98.50 | 1.50 | ' | 205.10 | 97.62 | 2.38 | ' |
| PAN | | | 231.38 | 98.41 | | ' | 259.32 | 98.51 | | ' | 205.36 | 97.74 | | ' |

| | | | |
|------------------|-------|-------|-------|
| SIEVE LOSS | 0.18 | 0.03 | 0.12 |
| WEIGHTED AVE(mm) | 0.207 | 0.202 | 0.151 |
| SILT-CLAY % | 1.64 | 1.50 | 2.41 |

GRADATION ANALYSIS REPORT
PALM BEACH VIBRACORE SAMPLES DECEMBER 1987

FOR: X SOIL CLASSIFICATION X CORING SAMPLES BEACH SAMPLES CONCRETE AGGREGATES
ENVIRONMENTAL STATION NATURAL SOIL FILL SAMPLES PIT SAMPLES

| | | | |
|-------------------|------|------|-----|
| CORE NO. | 11 | 11 | 12 |
| SAMPLE DEPTH (FT) | 14.0 | 18.0 | 4.0 |

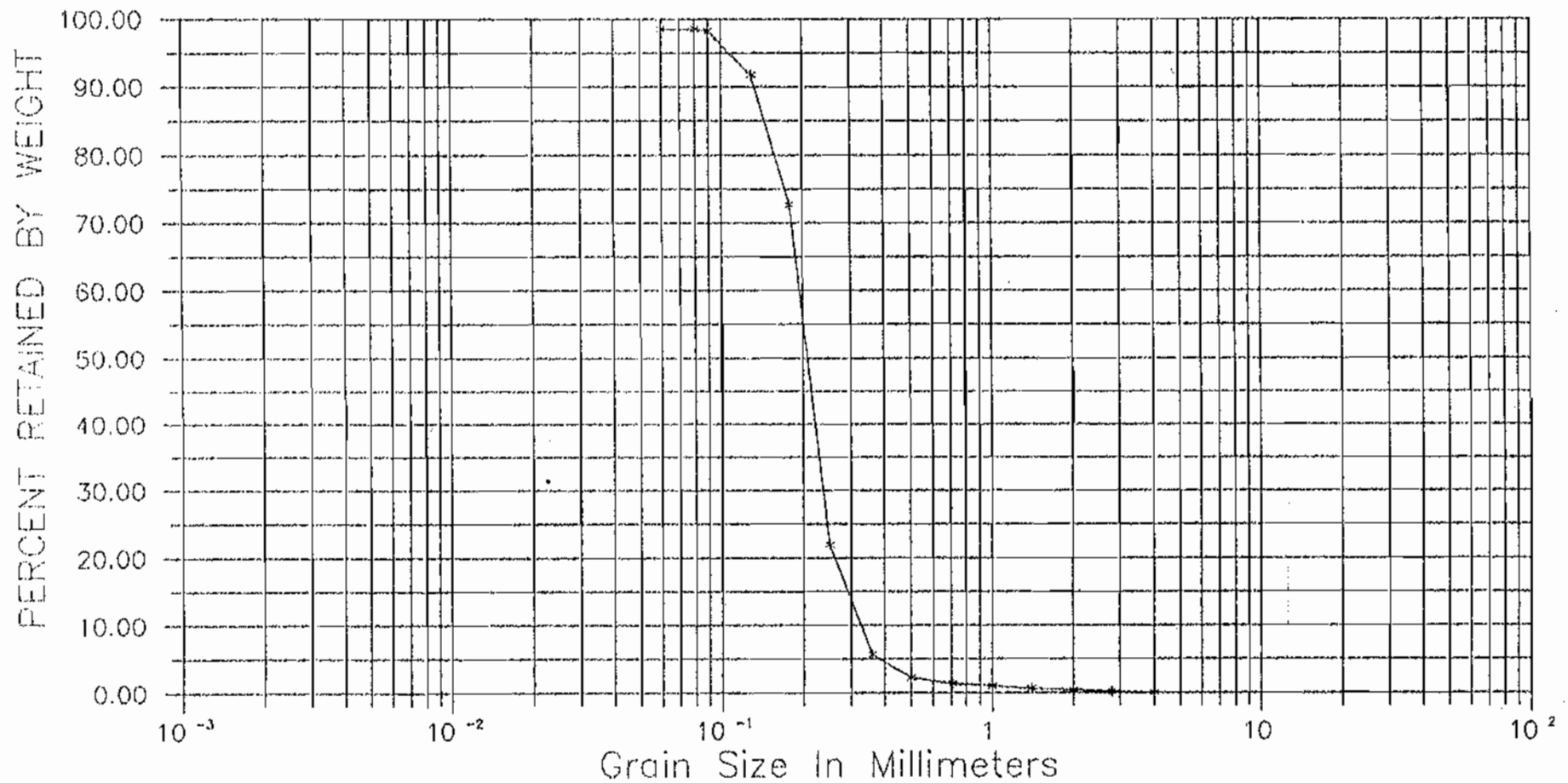
| | | | |
|-------------------------|----|----|----|
| U.S.C.S. DESCRIPTION | SP | SP | SP |
|-------------------------|----|----|----|

| | | | |
|-----------------------|--------|--------|--------|
| DRY SAMPLE WT (GRAMS) | 252.71 | 221.75 | 228.62 |
| SAMPLE WT AFTER WASH | 248.32 | 216.51 | 225.72 |

| SIEVE SIZE | PHI SIZE | MESH SIZE (mm) | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | |
|---------------|-------------|-------------------|--------|--------|--------|---|--------|--------|--------|---|--------|--------|--------|---|
| 5 | -2.00 | 4 | 0.39 | 0.15 | 99.85 | , | 0.00 | 0.00 | 100.00 | , | 0.30 | 0.13 | 99.87 | , |
| 7 | -1.50 | 2.8 | 0.50 | 0.20 | 99.80 | , | 0.34 | 0.15 | 99.85 | , | 0.30 | 0.13 | 99.87 | , |
| 10 | -1.00 | 2 | 0.72 | 0.28 | 99.72 | , | 1.09 | 0.49 | 99.51 | , | 0.42 | 0.18 | 99.82 | , |
| 14 | -0.50 | 1.4 | 1.05 | 0.42 | 99.58 | , | 2.20 | 0.99 | 99.01 | , | 0.50 | 0.22 | 99.78 | , |
| 18 | 0.00 | 1 | 1.90 | 0.75 | 99.25 | , | 3.64 | 1.64 | 98.36 | , | 0.71 | 0.31 | 99.69 | , |
| 25 | 0.50 | 0.71 | 3.13 | 1.24 | 98.76 | , | 5.86 | 2.64 | 97.36 | , | 1.82 | 0.80 | 99.20 | , |
| 35 | 1.00 | 0.5 | 5.53 | 2.19 | 97.81 | , | 10.82 | 4.88 | 95.12 | , | 5.34 | 2.34 | 97.66 | , |
| 45 | 1.50 | 0.355 | 8.82 | 3.49 | 96.51 | , | 22.81 | 10.29 | 89.71 | , | 24.87 | 10.88 | 89.12 | , |
| 60 | 2.00 | 0.25 | 33.80 | 13.38 | 86.62 | , | 61.04 | 27.53 | 72.47 | , | 68.97 | 30.17 | 69.83 | , |
| 80 | 2.50 | 0.18 | 149.71 | 59.24 | 40.76 | , | 134.59 | 60.69 | 39.31 | , | 126.06 | 55.14 | 44.86 | , |
| 120 | 3.00 | 0.125 | 217.61 | 86.11 | 13.89 | , | 192.25 | 86.70 | 13.30 | , | 195.31 | 85.43 | 14.57 | , |
| 170 | 3.50 | 0.09 | 246.45 | 97.52 | 2.48 | , | 215.21 | 97.05 | 2.95 | , | 224.26 | 98.09 | 1.91 | , |
| 200 | 3.75 | 0.075 | 247.55 | 97.96 | 2.04 | , | 215.80 | 97.32 | 2.68 | , | 225.00 | 98.42 | 1.58 | , |
| 230 | 4.00 | 0.063 | 247.81 | 98.06 | 1.94 | , | 216.10 | 97.45 | 2.55 | , | 225.40 | 98.59 | 1.41 | , |
| PAN | | | 248.00 | 98.14 | | , | 216.24 | 97.52 | | , | 225.47 | 98.62 | | , |

| | | | |
|-------------------|-------|-------|-------|
| SIEVE LOSS | 0.32 | 0.27 | 0.25 |
| WEIGHTED AVE (mm) | 0.182 | 0.212 | 0.195 |
| SILT-CLAY % | 1.92 | 2.56 | 1.47 |

MECHANICAL ANALYSIS CHART



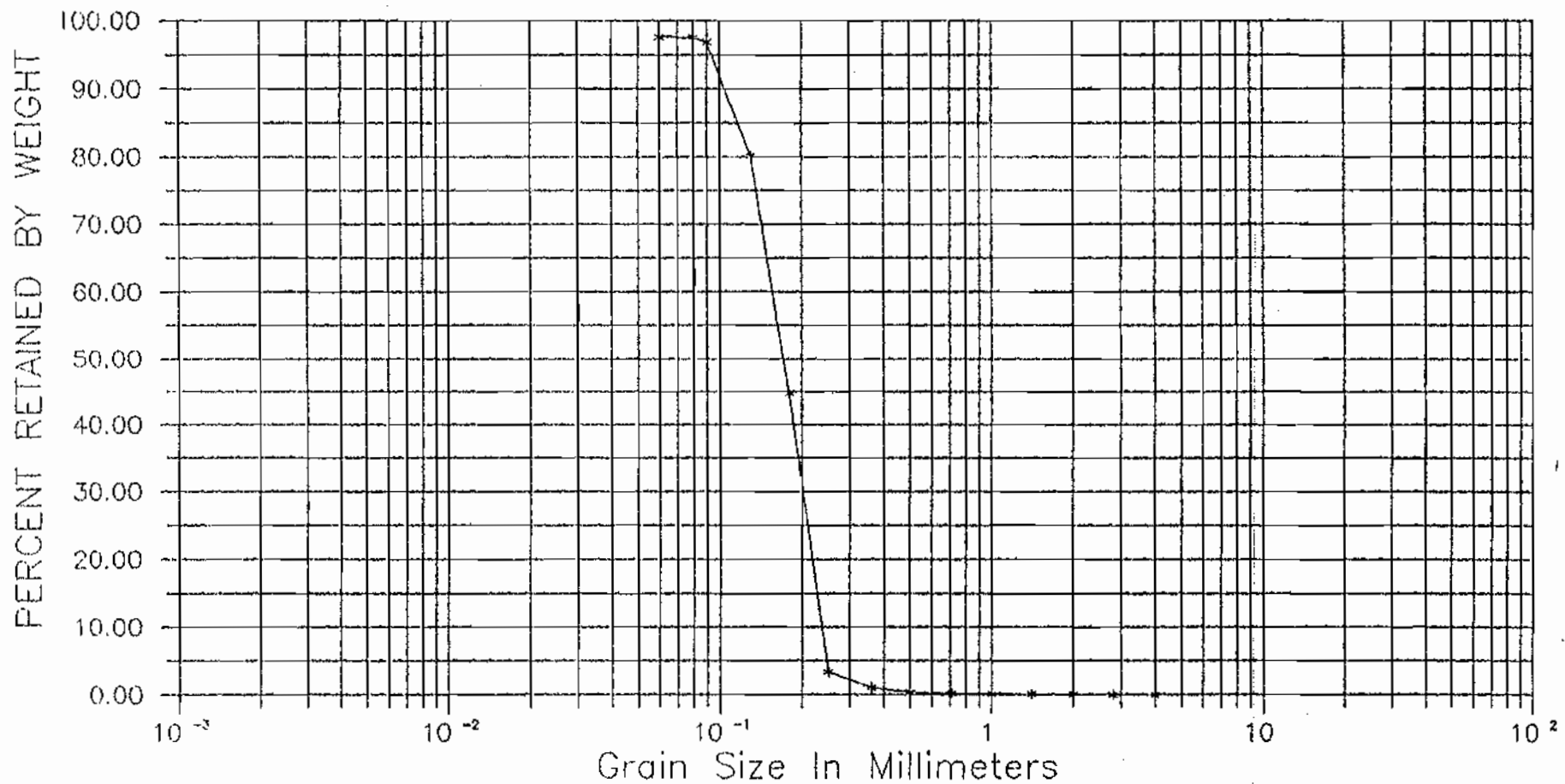
| SILT OR CLAY | | SAND | | | GRAVEL | |
|--------------|--|------|--------|--------|--------|--------|
| | | FINE | MEDIUM | COARSE | FINE | COARSE |

SAMPLE NO.

CLASSIFICATION

| | MEAN | MEDIAN | SORTING |
|--------------------------------|-------|--------|---------|
| 11 | .21mm | .21mm | .40 |
| 3' | .21mm | .21mm | .45 |
| GREY POORLY GRADED SAND - (SP) | | | |

MECHANICAL ANALYSIS CHART



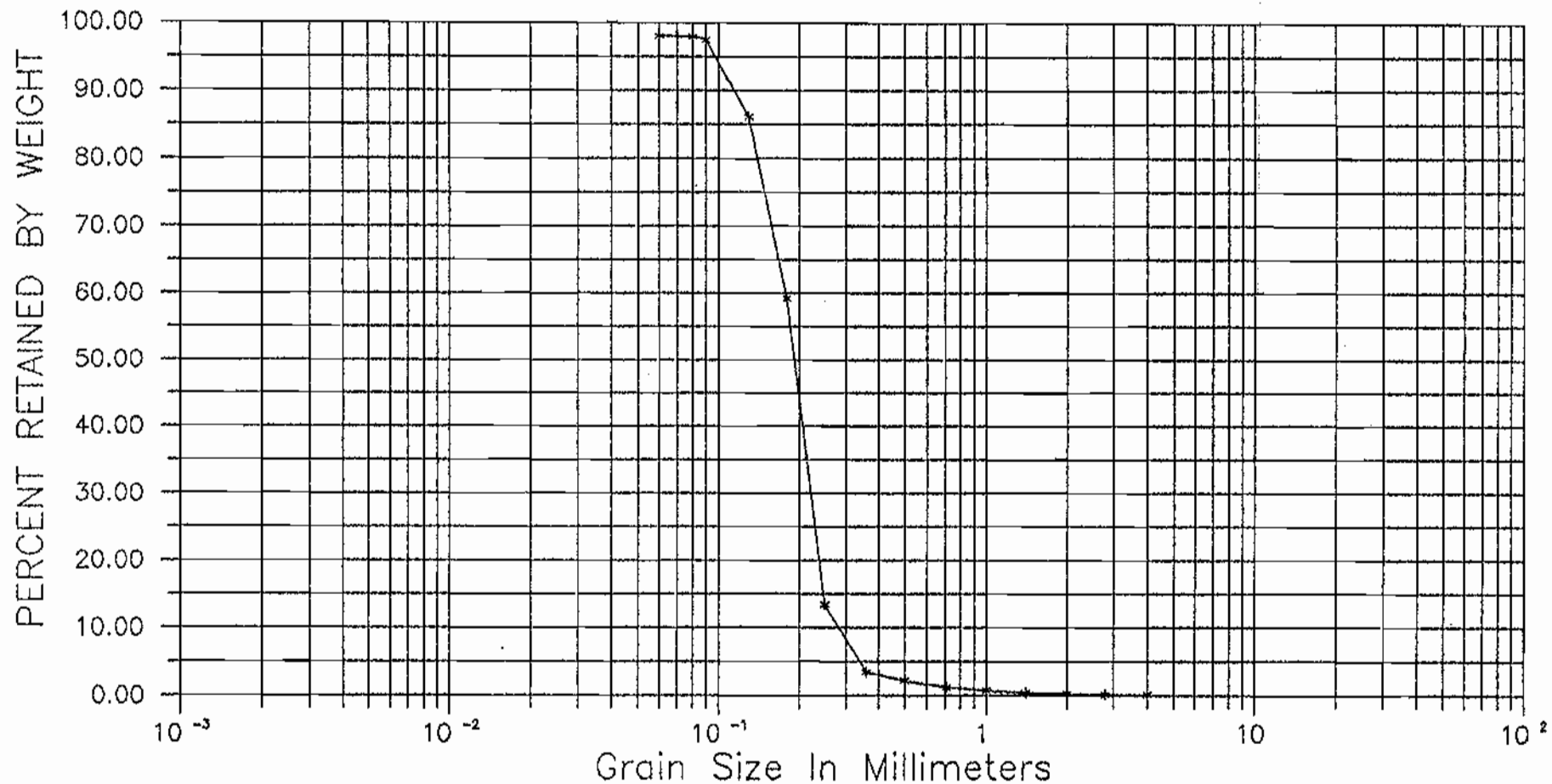
| | | | | | |
|--------------|------|--------|--------|--------|--------|
| SILT OR CLAY | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

SAMPLE NO.

CLASSIFICATION

| | MEAN | MEDIAN | SORTING |
|----|--------------------------------|--------|---------|
| 11 | .17mm | .17mm | .41 |
| 91 | .17mm | .18mm | .41 |
| | GREY POORLY GRADED SAND - (SP) | | |

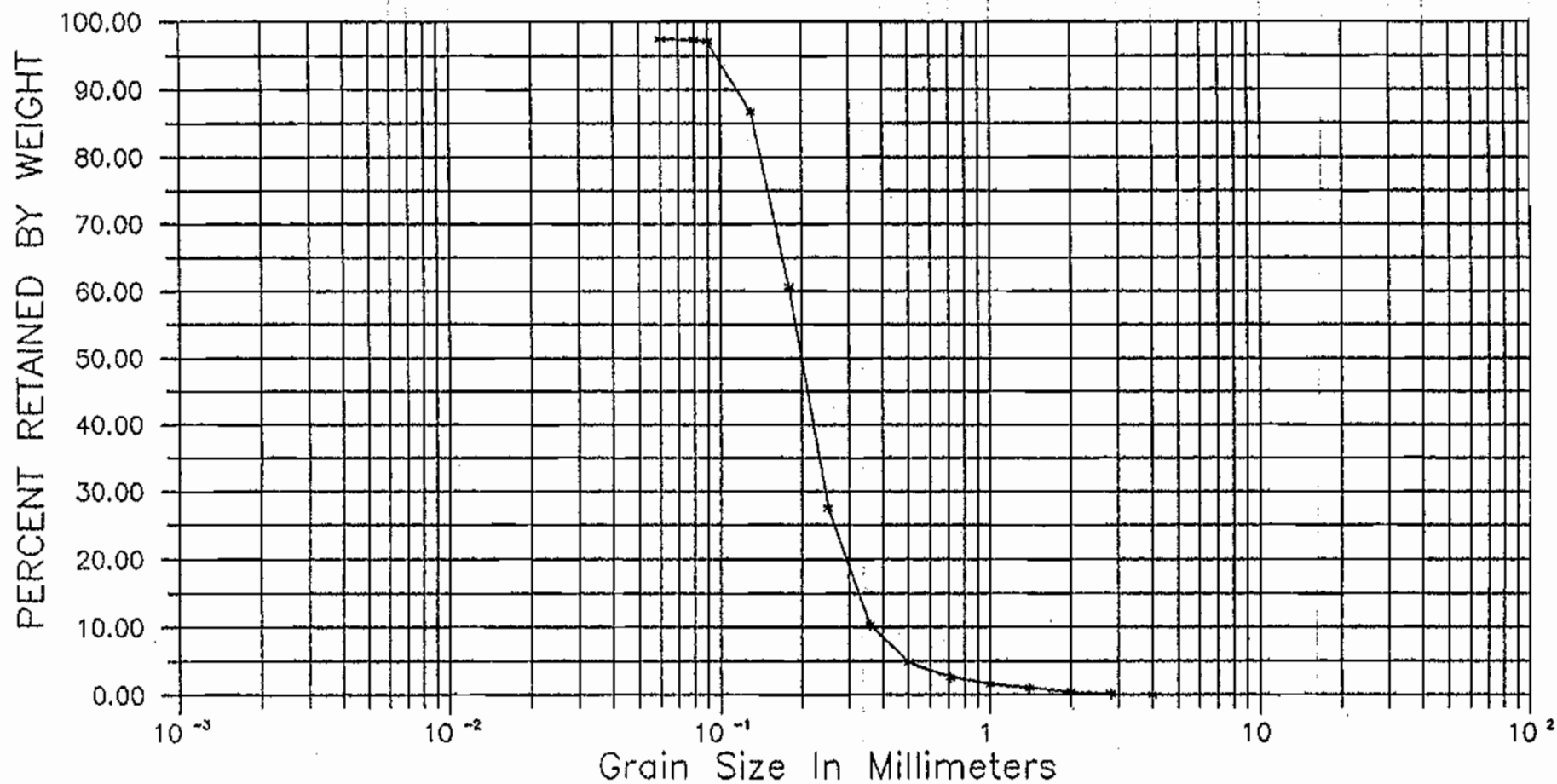
MECHANICAL ANALYSIS CHART



| | | | | | |
|--------------|------|--------|--------|--------|--------|
| SILT OR CLAY | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

| SAMPLE NO. | CLASSIFICATION | | |
|------------|--------------------------------|------------------|----------------|
| 11 | MEAN | MEDIAN | SORTING |
| 14' | .18mm | .19mm | .42 |
| | .18mm | .19mm | .41 |
| | GREY POORLY GRADED SAND - (SP) | | |

MECHANICAL ANALYSIS CHART



| | | | | | |
|--------------|------|--------|--------|--------|--------|
| SILT OR CLAY | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

| SAMPLE NO. | CLASSIFICATION | | |
|------------|--|--------|---------|
| 11 | MEAN | MEDIAN | SORTING |
| 18' | 21mm | 20mm | 57 |
| | 20 mm | 20 mm | 63 |
| | GREY POORLY GRADED SAND & SHELL FRAGMENTS - (SP) | | |