

VIBRACORE LOG

| | | | |
|------------------------------------|------------------------|---|--|
| Project: <u>TOWN OF PALM BEACH</u> | | Core No: <u>4</u> | |
| Coordinates: | Date: <u>12-14-87</u> | Water Depth _____ NGVD | |
| N = <u>855899.7</u> | Start Time <u>1825</u> | Driller <u>M.L. CLARKE</u> | |
| E = <u>818314.5</u> | End Time <u>1845</u> | Client Rep. <u>JEFF ANDREWS</u> <u>FRED KAUB</u> | |

| | Elev. | Depth | Legend | Description | Samp. No. | Remarks |
|---|-------|-------|--------|--|-----------|----------------|
| Core Diam. <u>3.0"</u> | | 0 | | | | |
| Length of Barrel <u>20'</u> | | | | GREY SAND (104R 611) | | |
| Penetration Depth <u>20'</u> | | | | W/ SCATTERED SHELL & CORAL FRAG. UP TO 1.5" DIA. | 1.6' | (SP-GP) |
| Length Recovered <u>19'7"</u> | | | | | | |
| Length Retained <u>19'7"</u> | | | | | | |
| Remarks: <u>PENETRATION TIME 20MIN</u> | | 5 | | | | |
| Support Vessel <u>G.W. PIERCE</u> | | | | GREY SAND (104R 611) | 6.2' | (SP) |
| Positioning System <u>TRISPONDER</u> | | | | | | |
| Positioning Remarks: | | | | | | |
| | | 10 | | | | SHELL QTY L 1% |
| Weather <u>CLEAR</u> | | | | | | |
| Wind | | | | | | |
| Dir: <u>SE</u> | | | | | | |
| Est. Speed <u>15-20K</u> | | | | | | |
| Waves | | | | | | |
| Dir: <u>SE</u> | | | | | | |
| Height <u>3-4'</u> | | | | | | |
| Current | | | | | | |
| Dir: <u>N/A</u> | | | | | | |
| Est. Speed: _____ | | 15 | | | 14.8' | (SP) |
| | | | | | | |
| Analysis By: <u>FK</u> | | | | | | |
| Date: <u>12/20/87</u> | | | | | | |
| Analysis Method: | | | | | | |
| <u>VISUAL LOG</u> | | | | | 19.0' | (SP) |
| <u>MECHANICAL SIEVE</u> | | 20 | | | | |

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. | 4 | 4 | 4 |
| SAMPLE DEPTH (FT) | 1.6 | 6.2 | 14.8 |

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

| | | | |
|-----------------------|--------|--------|--------|
| DRY SAMPLE WT (GRAMS) | 220.62 | 236.31 | 231.35 |
| SAMPLE WT AFTER WASH | 214.86 | 230.33 | 225.67 |

| SIEVE SIZE | PHI SIZE | MESH SIZE (mm) | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | |
|---------------|-------------|-------------------|--------|--------|--------|---|--------|--------|--------|---|--------|--------|--------|---|
| 5 | -2.00 | 4 | 10.56 | 4.79 | 95.21 | , | 0.43 | 0.18 | 99.82 | , | 2.25 | 0.97 | 99.03 | , |
| 7 | -1.50 | 2.8 | 14.90 | 6.75 | 93.25 | , | 0.45 | 0.19 | 99.81 | , | 3.60 | 1.56 | 98.44 | , |
| 10 | -1.00 | 2 | 19.21 | 8.71 | 91.29 | , | 0.71 | 0.30 | 99.70 | , | 7.34 | 3.17 | 96.83 | , |
| 14 | -0.50 | 1.4 | 24.35 | 11.04 | 88.96 | , | 1.06 | 0.45 | 99.55 | , | 12.00 | 5.19 | 94.81 | , |
| 18 | 0.00 | 1 | 29.70 | 13.46 | 86.54 | , | 1.30 | 0.55 | 99.45 | , | 19.98 | 8.64 | 91.36 | , |
| 25 | 0.50 | 0.71 | 36.26 | 16.44 | 83.56 | , | 1.87 | 0.79 | 99.21 | , | 32.80 | 14.18 | 85.82 | , |
| 35 | 1.00 | 0.5 | 43.83 | 19.87 | 80.13 | , | 3.00 | 1.27 | 98.73 | , | 51.49 | 22.26 | 77.74 | , |
| 45 | 1.50 | 0.355 | 53.26 | 24.14 | 75.86 | , | 6.00 | 2.54 | 97.46 | , | 71.82 | 31.04 | 68.96 | , |
| 60 | 2.00 | 0.25 | 77.42 | 35.09 | 64.91 | , | 34.41 | 14.56 | 85.44 | , | 110.81 | 47.90 | 52.10 | , |
| 80 | 2.50 | 0.18 | 155.30 | 70.39 | 29.61 | , | 137.20 | 58.06 | 41.94 | , | 167.64 | 72.46 | 27.54 | , |
| 120 | 3.00 | 0.125 | 197.00 | 89.29 | 10.71 | , | 209.70 | 88.74 | 11.26 | , | 204.90 | 88.57 | 11.43 | , |
| 170 | 3.50 | 0.09 | 213.61 | 96.82 | 3.18 | , | 229.07 | 96.94 | 3.06 | , | 224.95 | 97.23 | 2.77 | , |
| 200 | 3.75 | 0.075 | 214.20 | 97.09 | 2.91 | , | 229.91 | 97.29 | 2.71 | , | 225.00 | 97.26 | 2.74 | , |
| 230 | 4.00 | 0.063 | 214.43 | 97.19 | 2.81 | , | 230.05 | 97.35 | 2.65 | , | 225.39 | 97.42 | 2.58 | , |
| PAN | | | 214.50 | 97.23 | | , | 230.15 | 97.39 | | , | 225.62 | 97.52 | | , |

| | | | |
|------------------|-------|-------|-------|
| SIEVE LOSS | 0.36 | 0.18 | 5.73 |
| WEIGHTED AVE(mm) | 0.532 | 0.180 | 0.385 |
| SILT-CLAY % | 2.75 | 2.63 | 2.72 |

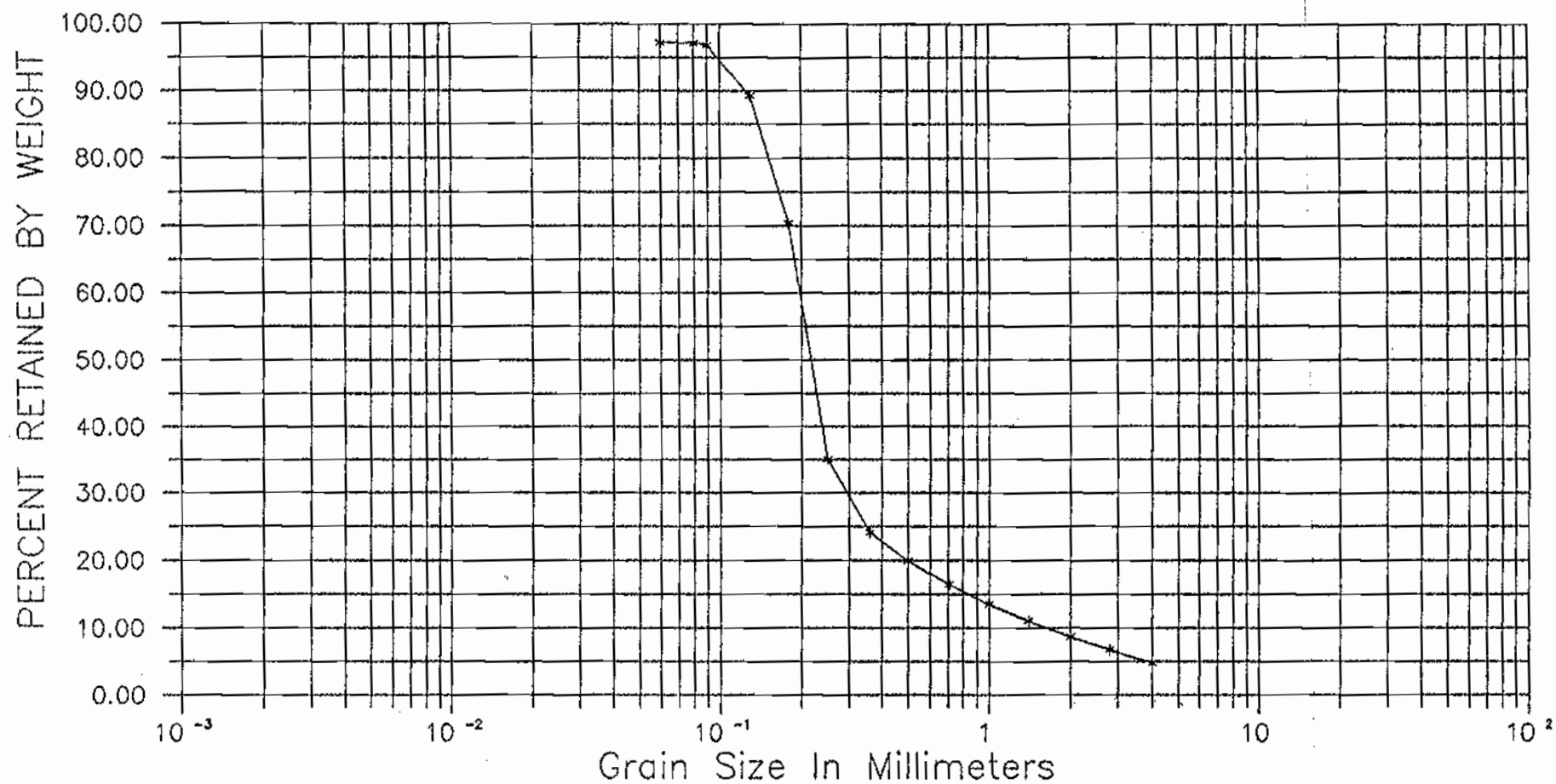
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ENVIRONMENTAL STATION NATURAL SOIL FILL SAMPLES PIT SAMPLES

| | | | | | | | | | | | | | |
|-----------------------|--------|-----------|--------|--------|--------|--------|--------|--------|--------|---|--------|--------|--------|
| CORE NO. | 4 | 5 | 5 | | | | | | | | | | |
| SAMPLE DEPTH (FT) | 19.0 | 2.0 | 7 | | | | | | | | | | |
| | | | | | | | | | | | | | |
| U.S.C.S. | SP | | | | | SP | | | | | SP | | |
| DESCRIPTION | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| DRY SAMPLE WT (GRAMS) | 212.98 | | | | | 232.51 | | | | | 231.48 | | |
| SAMPLE WT AFTER WASH | 209.68 | | | | | 229.91 | | | | | 228.92 | | |
| | | | | | | | | | | | | | |
| SIEVE | PHI | MESH | | | | | | | | | | | |
| SIZE | SIZE | SIZE (mm) | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS | | GRAMS | % RET. | % PASS |
| 5 | -2.00 | 4 | 0.00 | 0.00 | 100.00 | , | 1.39 | 0.60 | 99.40 | , | 0.00 | 0.00 | 100.00 |
| 7 | -1.50 | 2.8 | 0.40 | 0.19 | 99.81 | , | 2.06 | 0.89 | 99.11 | , | 0.61 | 0.26 | 99.74 |
| 10 | -1.00 | 2 | 0.75 | 0.35 | 99.65 | , | 3.00 | 1.29 | 98.71 | , | 0.64 | 0.28 | 99.72 |
| 14 | -0.50 | 1.4 | 1.00 | 0.47 | 99.53 | , | 5.31 | 2.28 | 97.72 | , | 0.97 | 0.42 | 99.58 |
| 18 | 0.00 | 1 | 1.25 | 0.59 | 99.41 | , | 6.27 | 2.70 | 97.30 | , | 1.37 | 0.59 | 99.41 |
| 25 | 0.50 | 0.71 | 1.80 | 0.85 | 99.15 | , | 8.63 | 3.71 | 96.29 | , | 2.15 | 0.93 | 99.07 |
| 35 | 1.00 | 0.5 | 2.84 | 1.33 | 98.67 | , | 12.42 | 5.34 | 94.66 | , | 4.22 | 1.82 | 98.18 |
| 45 | 1.50 | 0.355 | 9.50 | 4.46 | 95.54 | , | 20.00 | 8.60 | 91.40 | , | 12.80 | 5.53 | 94.47 |
| 60 | 2.00 | 0.25 | 29.17 | 13.70 | 86.30 | , | 41.99 | 18.06 | 81.94 | , | 70.00 | 30.24 | 69.76 |
| 80 | 2.50 | 0.18 | 100.97 | 47.41 | 52.59 | , | 133.95 | 57.61 | 42.39 | , | 161.45 | 69.75 | 30.25 |
| 120 | 3.00 | 0.125 | 169.05 | 79.37 | 20.63 | , | 199.22 | 85.68 | 14.32 | , | 211.45 | 91.35 | 8.65 |
| 170 | 3.50 | 0.09 | 207.16 | 97.27 | 2.73 | , | 228.41 | 98.24 | 1.76 | , | 227.80 | 98.41 | 1.59 |
| 200 | 3.75 | 0.075 | 208.42 | 97.86 | 2.14 | , | 229.37 | 98.65 | 1.35 | , | 228.45 | 98.69 | 1.31 |
| 230 | 4.00 | 0.063 | 208.92 | 98.09 | 1.91 | , | 229.62 | 98.76 | 1.24 | , | 228.73 | 98.81 | 1.19 |
| PAN | | | 209.49 | | | , | 229.74 | | | , | 228.80 | | |
| | | | | | | | | | | | | | |
| SIEVE LOSS | 0.19 | | | | | | 0.17 | | | | | 0.12 | |
| WEIGHTED AVE(mm) | 0.171 | | | | | | 0.230 | | | | | 0.201 | |
| SILT-CLAY % | 2.05 | | | | | | 1.28 | | | | | 1.26 | |

MECHANICAL ANALYSIS CHART



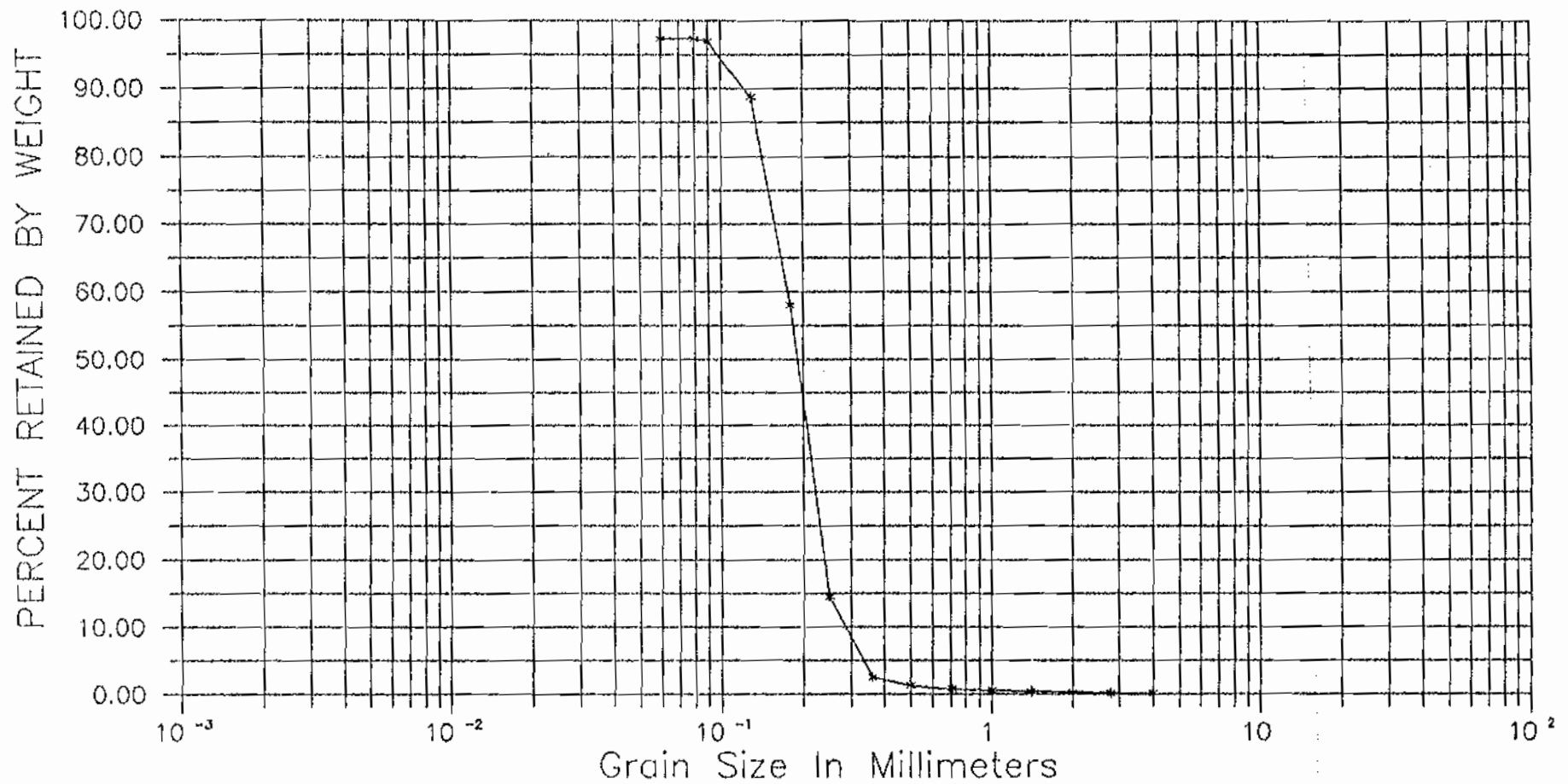
| SILT OR CLAY | SAND | | | GRAVEL | |
|--------------|------|--------|--------|--------|--------|
| | FINE | MEDIUM | COARSE | FINE | COARSE |

SAMPLE NO.

CLASSIFICATION

| | MEAN | MEDIAN | SORTING |
|--|------------------|-------------------|-----------------|
| 4/ | | | |
| 1.6' | 30 mm | 2.2 mm | 1.20 |
| | .27 mm | .21 mm | 1.17 |
| GREY POORLY GRADED SAND WITH CORAL & SHELL FRAGMENTS (SP-GP) | | | |

MECHANICAL ANALYSIS CHART



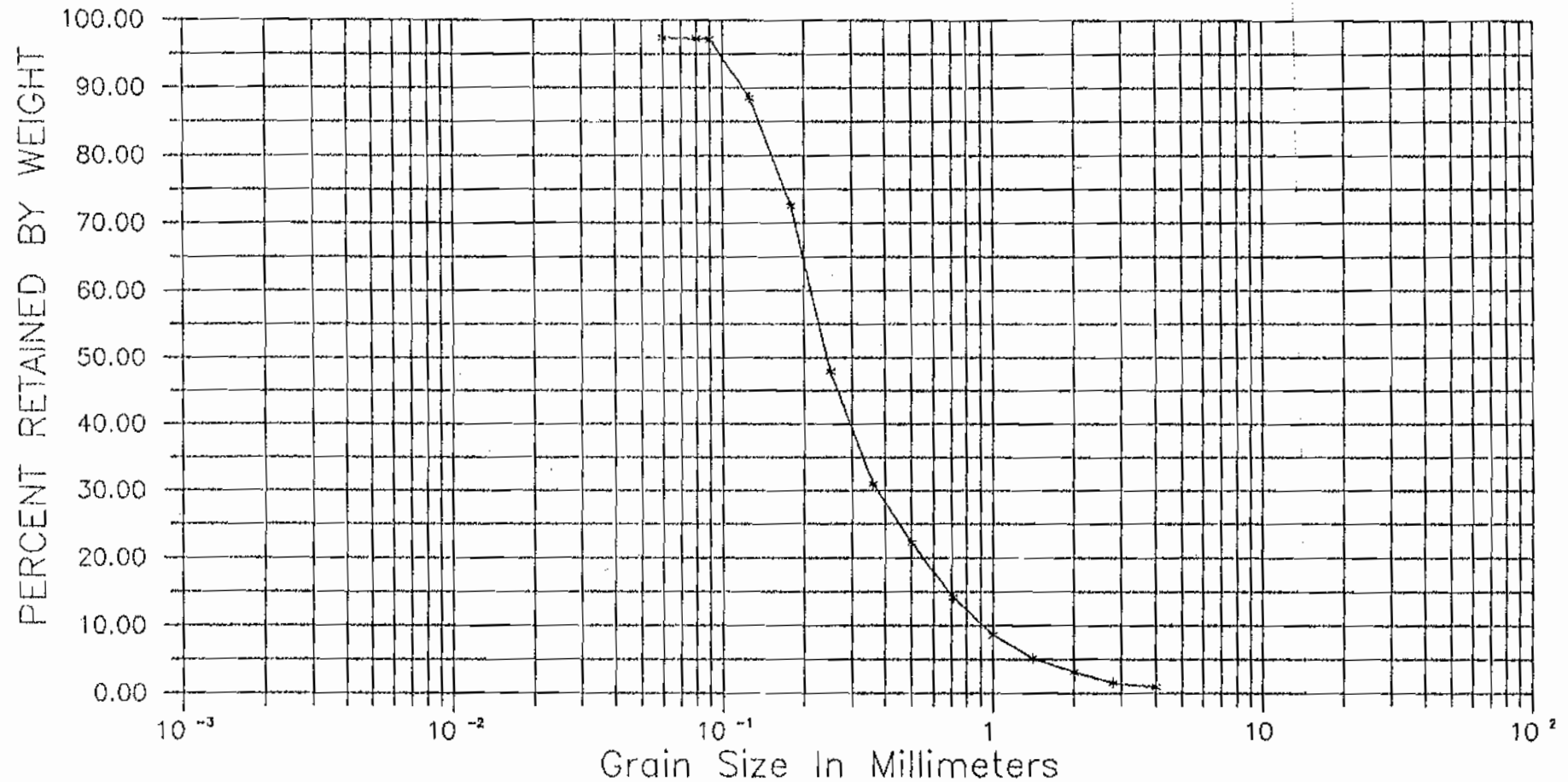
| | | | | | |
|--------------|------|--------|--------|--------|--------|
| SILT OR CLAY | SAND | | | GRAVEL | |
| | FINE | MEDIUM | COARSE | FINE | COARSE |

SAMPLE NO.

CLASSIFICATION

| 4 | MEAN | MEDIAN | SORTING |
|------------------------------|------------------|------------------|----------------|
| 62' | .14mm | .14mm | .42 |
| | .18mm | .19mm | .41 |
| GREY POORLY GRADED SAND-(SP) | | | |

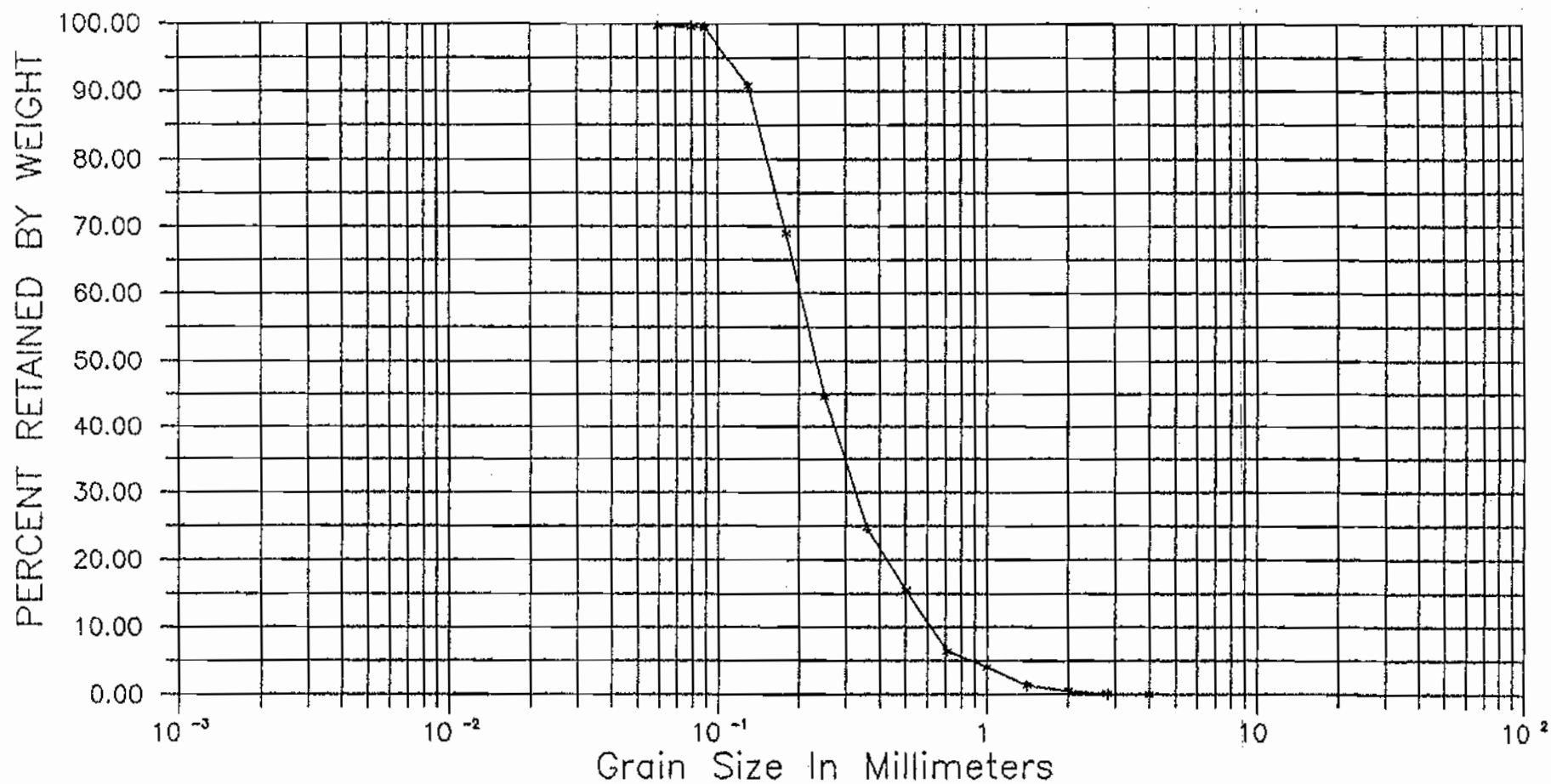
MECHANICAL ANALYSIS CHART



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

| SAMPLE NO. | CLASSIFICATION | | |
|------------|---|--------|---------|
| 4 | MEAN | MEDIAN | SORTING |
| 14.81 | .24 mm | .25 mm | 1.10 |
| | .28 mm | .24 mm | 1.10 |
| | GREY POORLY GRADED SAND WITH SCATTERED SHELL - (SP) | | |

MECHANICAL ANALYSIS CHART



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

SAMPLE NO.

CLASSIFICATION

| 4 | MEAN | MEDIAN | SORTING |
|-----|--------------------------------|--------|---------|
| 191 | .21mm | .22mm | .87 |
| | .21mm | .22mm | .87 |
| | GREY POORLY GRADED SAND - (SP) | | |