

GRADATION ANALYSIS REPORT  
PALM BEACH VIBRACORP SAMPLES DECEMBER 1987

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

|                   |                 |                 |     |
|-------------------|-----------------|-----------------|-----|
| CORE NO.          | 14 <sup>b</sup> | 14 <sup>b</sup> | 15  |
| SAMPLE DEPTH (FT) | 14.0            | 18.0            | 2.0 |

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

|                       |        |        |        |
|-----------------------|--------|--------|--------|
| DRY SAMPLE WT (GRAMS) | 220.58 | 182.86 | 163.23 |
| SAMPLE WT AFTER WASH  | 205.59 | 189.35 | 160.25 |

| SIEVE<br>SIZE | PFI<br>SIZE | MESH<br>SIZE (mm) | GRAMS  | % RET. | % PASS | GRAMS  | % RET. | % PASS | GRAMS  | % RET. | % PASS |
|---------------|-------------|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 5             | -2.00       | 4                 | 0.31   | 0.14   | 99.86  | 4.28   | 2.22   | 97.78  | 0.00   | 0.00   | 100.00 |
| 7             | -1.50       | 2.0               | 0.69   | 0.31   | 99.69  | 4.51   | 2.34   | 97.66  | 0.23   | 0.14   | 99.86  |
| 10            | -1.00       | 2                 | 1.25   | 0.57   | 99.43  | 4.66   | 2.53   | 97.47  | 0.53   | 0.32   | 99.68  |
| 14            | -0.50       | 1.4               | 2.40   | 1.09   | 98.91  | 5.22   | 2.71   | 97.29  | 1.20   | 0.74   | 99.26  |
| 18            | 0.00        | 1                 | 5.19   | 2.35   | 97.65  | 6.03   | 3.13   | 96.87  | 1.72   | 1.05   | 98.95  |
| 25            | 0.50        | 0.71              | 12.04  | 5.46   | 94.54  | 6.49   | 3.37   | 96.63  | 2.30   | 1.41   | 98.59  |
| 35            | 1.00        | 0.5               | 35.12  | 15.92  | 84.08  | 7.51   | 3.90   | 96.10  | 3.43   | 2.10   | 97.90  |
| 45            | 1.50        | 0.355             | 83.26  | 37.74  | 62.26  | 10.06  | 5.23   | 94.77  | 7.11   | 4.36   | 95.64  |
| 60            | 2.00        | 0.25              | 123.78 | 56.12  | 43.88  | 22.68  | 11.60  | 98.20  | 17.11  | 10.48  | 89.52  |
| 80            | 2.50        | 0.18              | 166.23 | 75.38  | 24.62  | 79.62  | 41.38  | 58.61  | 69.80  | 35.08  | 44.92  |
| 120           | 3.00        | 0.125             | 190.00 | 86.13  | 13.87  | 138.85 | 72.18  | 27.82  | 140.74 | 86.22  | 13.78  |
| 170           | 3.50        | 0.09              | 204.22 | 92.58  | 7.42   | 168.11 | 97.79  | 2.21   | 158.64 | 97.19  | 2.81   |
| 200           | 3.75        | 0.075             | 205.05 | 92.86  | 7.04   | 188.89 | 98.25  | 1.75   | 158.98 | 97.40  | 2.60   |
| 230           | 4.00        | 0.063             | 205.24 | 93.04  | 6.96   | 189.14 | 98.38  | 1.62   | 159.20 | 97.55  | 2.45   |
| PAN           |             |                   | 205.32 | 93.08  |        | 189.19 | 98.35  |        | 159.26 | 97.57  |        |

|                  |       |       |       |
|------------------|-------|-------|-------|
| SIEVE LOSS       | 0.27  | 0.16  | 0.99  |
| WEIGHED AVE (mm) | 0.309 | 0.226 | 0.139 |
| SILT-CLAY %      | 8.92  | 1.67  | 2.00  |

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ENVIRONMENTAL STATION NATURAL SOIL FILL SAMPLES PIT SAMPLES

|                   |     |      |      |
|-------------------|-----|------|------|
| CORE NO.          | 15  | 15   | 15   |
| SAMPLE DEPTH (FT) | 7.0 | 13.0 | 18.0 |

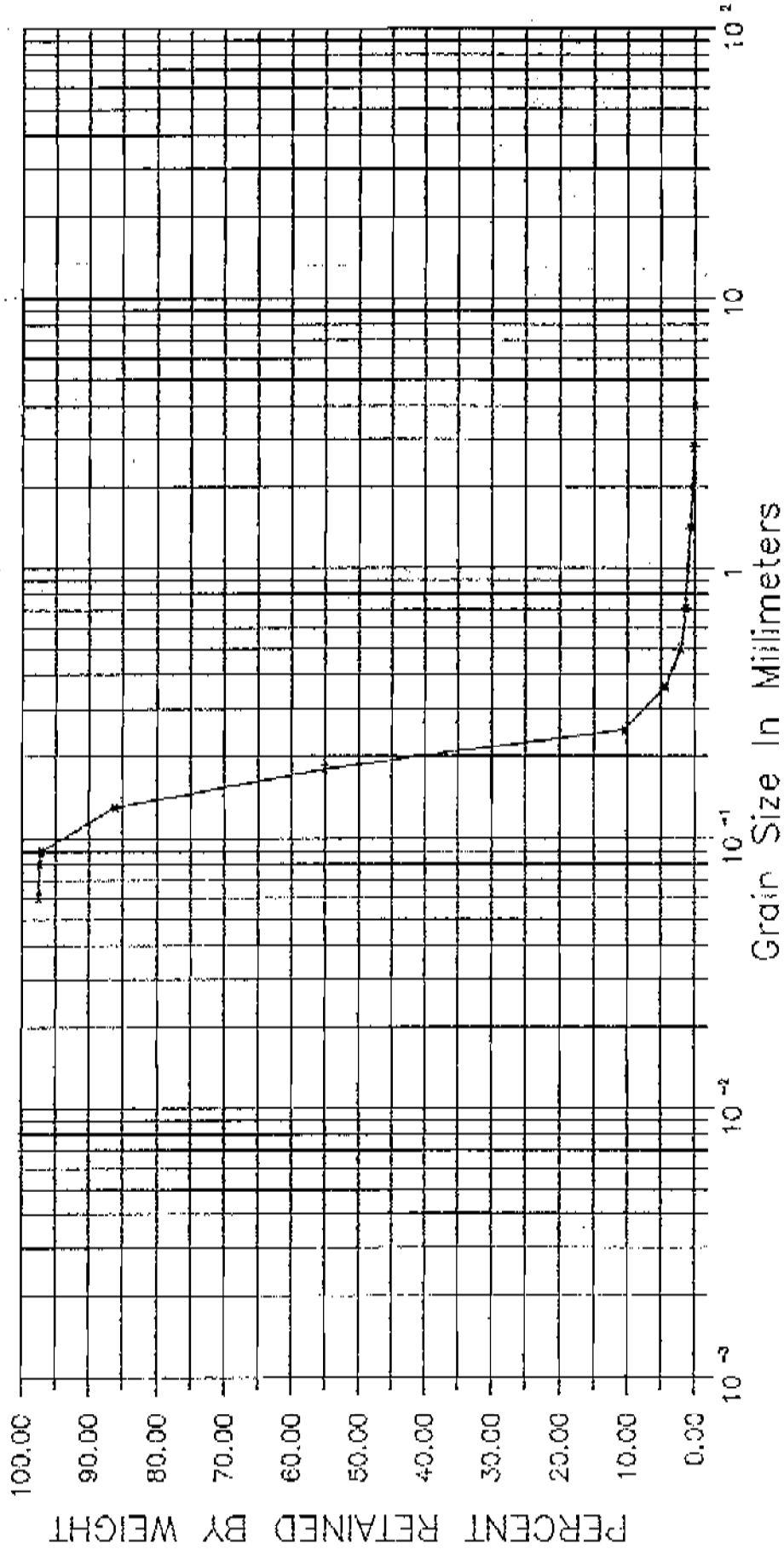
|                         |    |    |    |
|-------------------------|----|----|----|
| U.S.C.S.<br>DESCRIPTION | SP | SP | SM |
|-------------------------|----|----|----|

|                       |        |        |        |
|-----------------------|--------|--------|--------|
| DRY SAMPLE WT (GRAMS) | 193.71 | 198.18 | 182.20 |
| SAMPLE WT AFTER WASH  | 192.03 | 193.74 | 151.65 |

| SIEVE<br>SIZE | DEI<br>SIZE | MESH<br>SIZE (mm) | GRAMS  | % RET. | % PASS |   | GRAMS  | % RET. | % PASS |   | GRAMS  | % RET. | % PASS |
|---------------|-------------|-------------------|--------|--------|--------|---|--------|--------|--------|---|--------|--------|--------|
| 5             | -2.00       | 4                 | 0.00   | 0.00   | 100.00 | ' | 0.00   | 0.00   | 100.00 | ' | 9.37   | 5.78   | 94.22  |
| 7             | -1.50       | 2.8               | 0.21   | 0.11   | 99.89  | ' | 0.19   | 0.10   | 99.90  | ' | 10.91  | 6.73   | 93.27  |
| 10            | -1.00       | 2                 | 0.72   | 0.37   | 99.63  | ' | 0.86   | 0.48   | 99.52  | ' | 12.39  | 7.64   | 92.36  |
| 14            | -0.50       | 1.4               | 1.38   | 0.71   | 99.29  | ' | 1.25   | 0.63   | 99.37  | ' | 14.00  | 8.63   | 91.37  |
| 18            | 0.00        | 1                 | 4.89   | 2.50   | 97.50  | ' | 1.60   | 0.81   | 99.19  | ' | 16.41  | 10.12  | 89.88  |
| 25            | 0.50        | 0.71              | 9.02   | 4.61   | 95.39  | ' | 2.00   | 1.01   | 98.99  | ' | 20.40  | 12.56  | 87.42  |
| 35            | 1.00        | 0.5               | 15.98  | 8.17   | 91.83  | ' | 2.95   | 1.49   | 96.51  | ' | 28.00  | 17.26  | 82.74  |
| 45            | 1.50        | 0.355             | 27.89  | 14.22  | 85.78  | ' | 5.48   | 2.77   | 97.23  | ' | 40.72  | 25.10  | 74.90  |
| 60            | 2.00        | 0.25              | 87.42  | 44.67  | 55.88  | ' | 15.56  | 7.85   | 92.15  | ' | 57.98  | 35.75  | 64.25  |
| 80            | 2.50        | 0.18              | 100.91 | 51.56  | 48.44  | ' | 83.82  | 47.24  | 52.76  | ' | 97.73  | 60.25  | 39.75  |
| 120           | 3.00        | 0.125             | 154.40 | 78.09  | 21.11  | ' | 149.22 | 75.30  | 24.70  | ' | 129.45 | 78.81  | 20.19  |
| 170           | 3.50        | 0.09              | 190.85 | 97.92  | 2.48   | ' | 192.00 | 95.88  | 3.12   | ' | 149.33 | 92.07  | 7.93   |
| 200           | 3.75        | 0.075             | 191.37 | 98.04  | 1.96   | ' | 193.30 | 97.54  | 2.46   | ' | 150.57 | 92.83  | 7.17   |
| 250           | 4.00        | 0.063             | 191.90 | 98.05  | 1.95   | ' | 193.51 | 97.64  | 2.36   | ' | 151.12 | 93.17  | 6.83   |
| PAN           |             |                   | 191.95 |        |        | ' | 193.57 |        |        | ' | 151.20 |        |        |

|                  |       |       |       |
|------------------|-------|-------|-------|
| SIEVE LOSS       | 0.08  | 0.17  | 0.45  |
| WEIGHTED AVE(mm) | 0.229 | 0.187 | 0.408 |
| SILT-CLAY %      | 1.92  | 2.36  | 6.99  |

# MECHANICAL ANALYSIS CHART

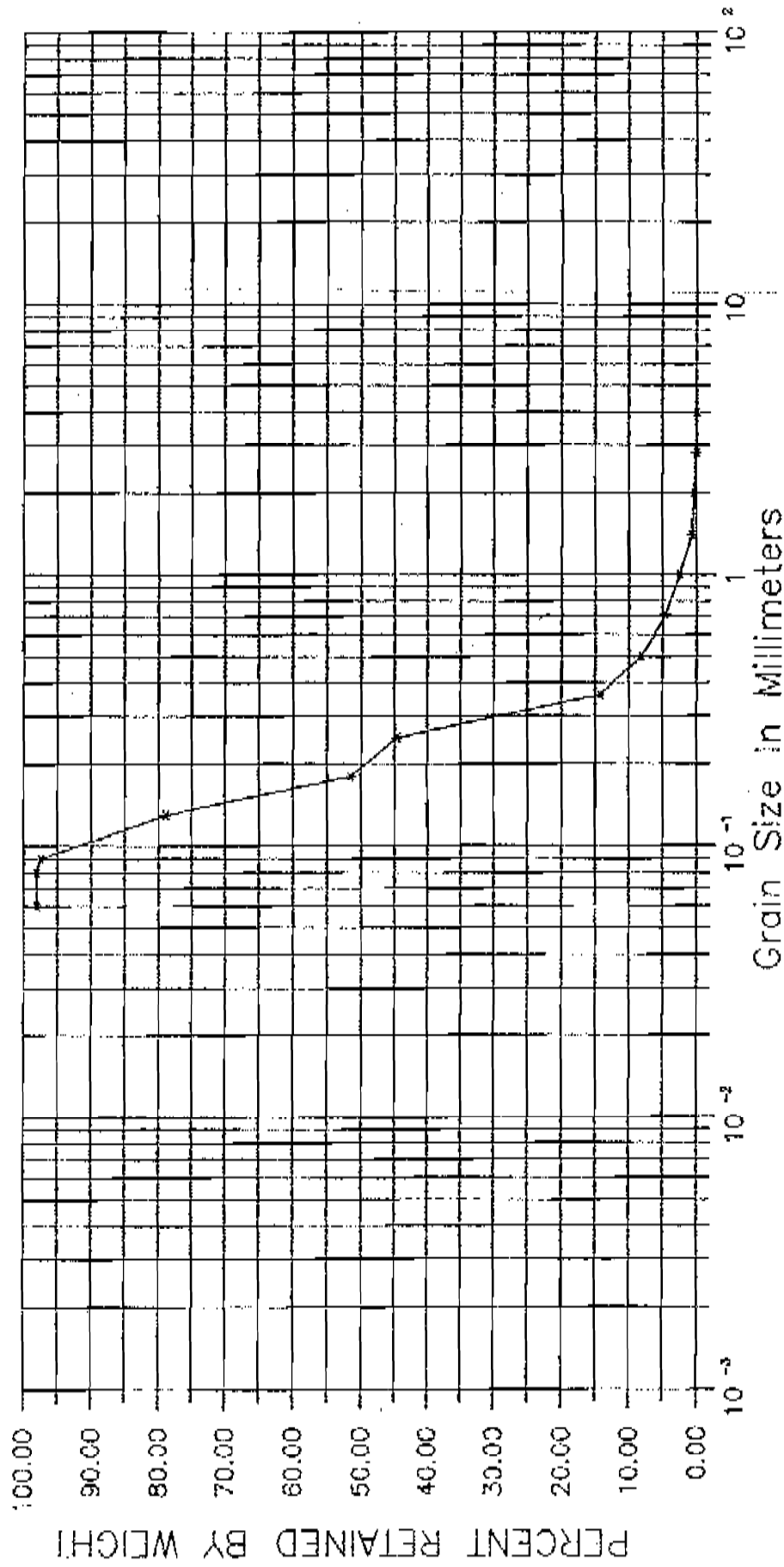


| SILT OR CLAY |        | SAND |        | GRAVEL |        |
|--------------|--------|------|--------|--------|--------|
| FINE         | COARSE | FINE | COARSE | FINE   | COARSE |

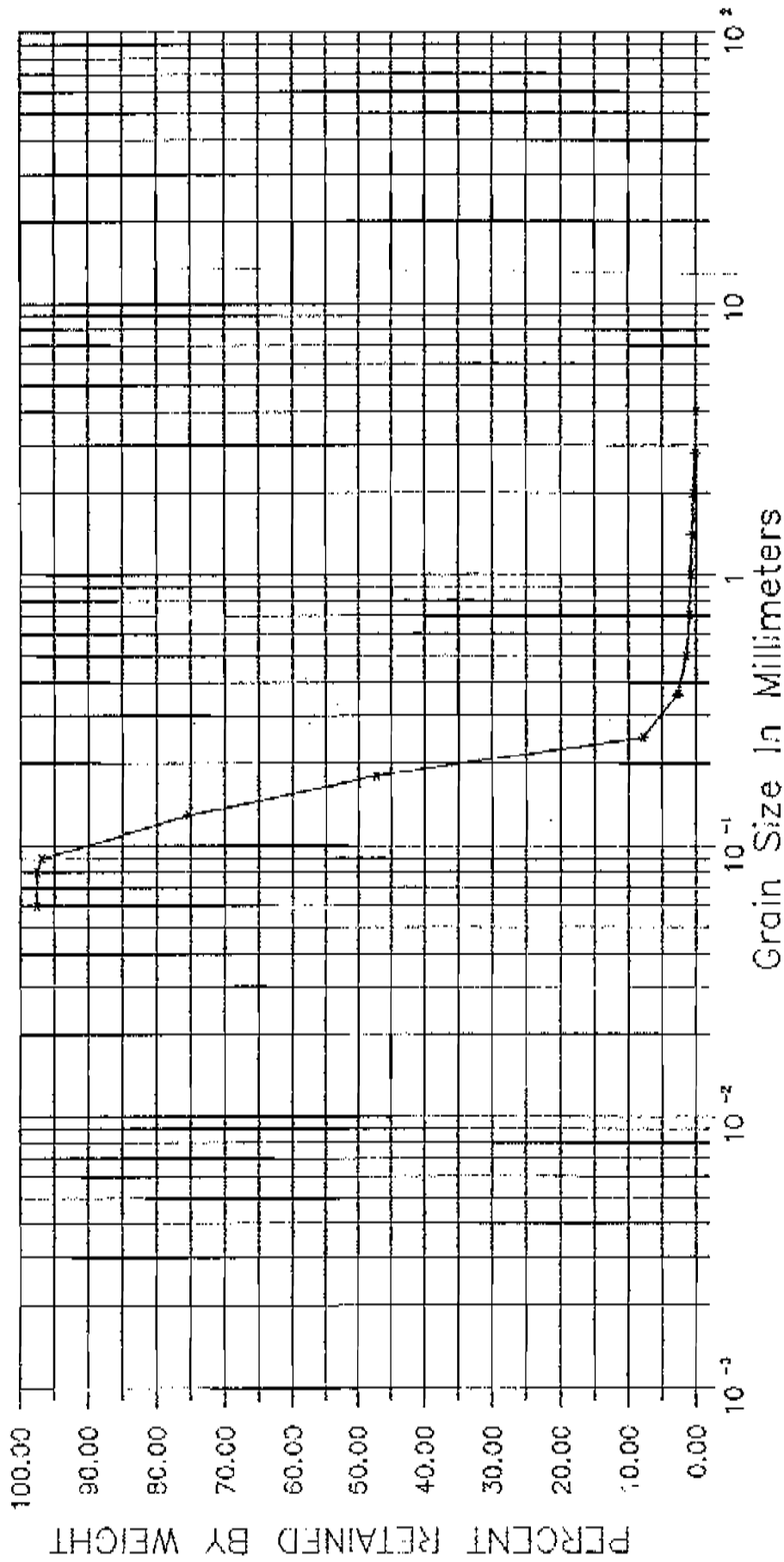
SAMPLE NO. CLASSIFICATION

|    |  |        |         |
|----|--|--------|---------|
| 15 | MEAN   | MEDIAN | SORTING |
| 21 |  |        |         |
|    | .18 mm   | .19 mm | 3.0     |
|    | GREY POORLY GRADED SAND & SCATTERED SHELL - (SP) |        |         |

# MECHANICAL ANALYSIS CHART



# MECHANICAL ANALYSIS CHART



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

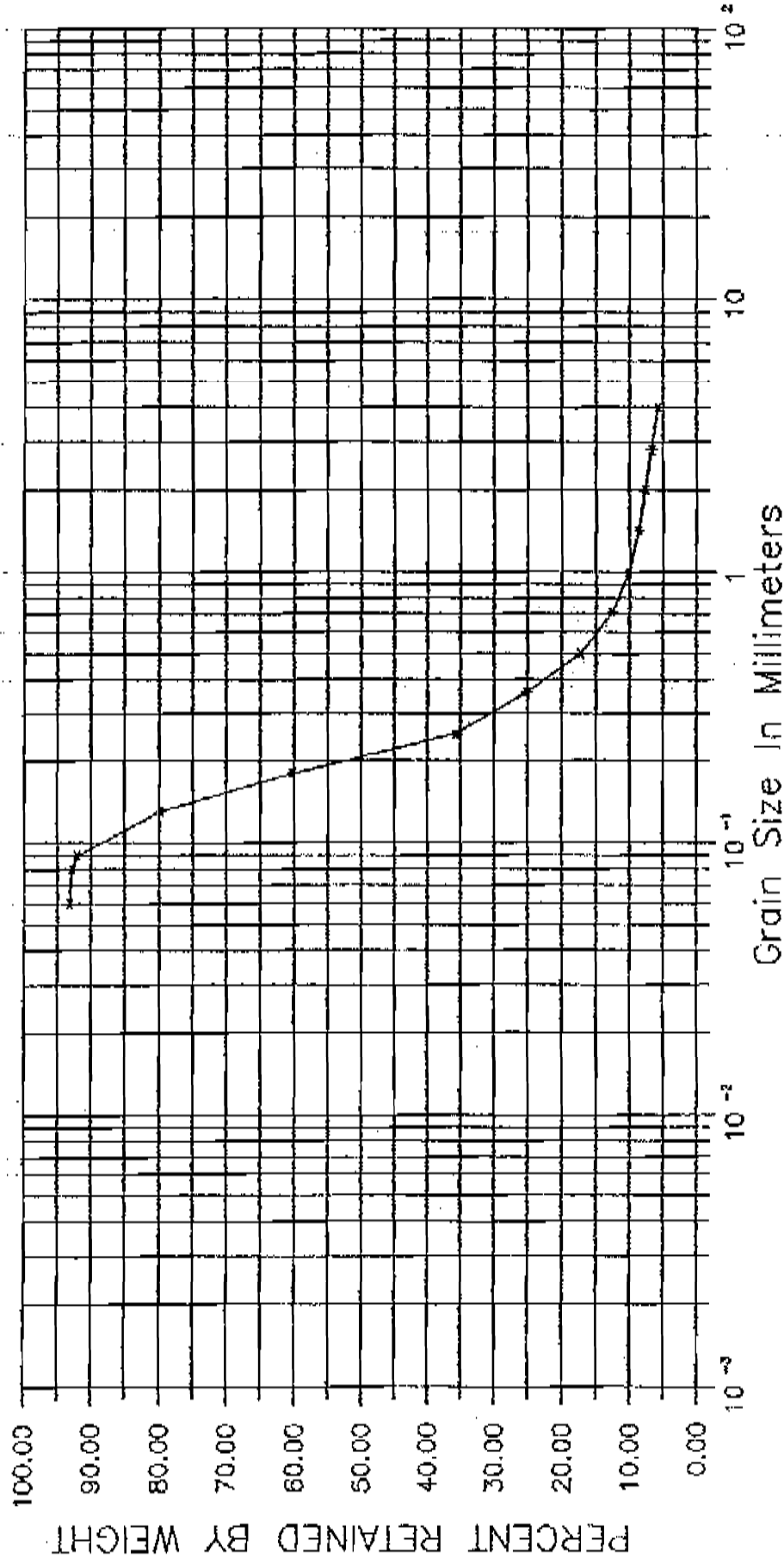
SAMPLE NO.

CLASSIFICATION

| 15 | MEAN                         | MEDIAN  | SORTING |
|----|------------------------------|---------|---------|
| 13 | 0.17mm                       | 0.425mm | SD      |
|    | 0.17mm                       | 0.425mm | SD      |
|    | GREY POORLY GRADED SAND (SP) |         |         |

(5.9)

# MECHANICAL ANALYSIS CHART



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

## CLASSIFICATION

| SAMPLE NO. | MEAN   | MEDIAN | SORTING |
|------------|--|--------|---------|
| 15         |  |        |         |
| 18'        | 25mm   | 20mm   | 1.04    |
|            | 23mm   | 20mm   | 1.08    |
|            | GREY POORLY GRADED SAND & CORAL FRAGMENTS - (SM) |        |         |