

# JET PROBE LOG

**PROJECT: ESTERO JET PROBES**

**JET PROBE: EST-JP-7**

**COORDINATES:**

N = 662222

E = 764529

**DATE: 5/10/00**

**START TIME: 1200**

**END TIME: 1208**

**WATER DEPTH: 5.8'**

**TOP DIVER: CK**

**BOTTOM DIVER: TT**

| NOTES  | ELEV. | DEPTH | SYMBOL | DESCRIPTION   |
|--|-------|-------|--------|---|
| LENGTH OF PVC PIPE: 20'<br>PENETRATION DEPTH: 19.5'<br>JET PUMP TYPE: Briggs and Stratton 3.0 hp<br><br>GAL/HR: 8460<br>DIAMETER OF PIPE: 1.5" | -5.8  | 0     |        | SEA FLOOR   |
| SUPPORT VESSEL: CPE II<br><br>POSITIONING: DIFFERENTIAL GPS USCG BEACON<br><br>NAVIGATION SYSTEM: "HYPACK"                                     |       | 1     |        |   |
|  |       | 2     |        |   |
|  |       | 3     |        |   |
|  |       | 4     |        |   |
|  |       | 5     |        |   |
|  |       | 6     |        |   |
|  |       | 7     |        |   |
| WEATHER:<br><br>WIND:<br>DIR: S-SE<br>SPEED: 5-10 KT<br><br>WAVES:<br>DIR: NE<br>HIEGHT: 1-2 ft<br><br>CURRENT:<br>DIR: NA<br>SPEED: 1-2 KT    |       | 8     |        |   |
|  |       | 9     |        |   |
|  |       | 10    |        | SAND, fine grained, trace shell<br>hash layers throughout, gray |
|  |       | 11    |        |   |
|  |       | 12    |        |   |
|  |       | 13    |        |   |
|  |       | 14    |        |   |
|  |       | 15    |        |   |
|  |       | 16    |        |   |
|  |       | 17    |        |   |
|  |       | 18    |        |   |
|  | -25.3 | 19    |        |   |
|  | -25.8 | 20    |        | ROCK  |
|  |       | 21    |        | SAND SAMPLES  |
|  |       | 22    |        | SURFACE: 0.13mm, 2.7% silt                                      |
|  |       | 23    |        | MID: 0.13mm, 3.4% silt  |
|  |       | 24    |        | BOTTOM: 0.16mm, 4.5% silt                                       |
| TURBIDITY:<br>TOP (0' - 10'): MOD<br>BOTTOM: (10' - 19.5'): MOD  |       |       |        |   |
| DRAWN BY: TT      CHECKED BY:<br>COMM.NO: 8410.02  |       |       |        |   |

GRADATION ANALYSIS REPORT  
ESTERO JET PROBES 2000  
TESTED BY: ID ON: 5/00

SAMPLE NO.: JP#7 TOP  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 0.0  
SAMPLE TYPE: SURFACE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 100.13  
SAMPLE WEIGHT AFTER WASH (GRAMS): 97.62

| SIEVE<br>SIZE | PHI<br>SIZE | MESH SIZE<br>(mm) | RETAINED<br>(GRAMS) | RETAINED<br>(%) | PASSED<br>(%) |
|---------------|-------------|-------------------|---------------------|-----------------|---------------|
| 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             | 0.05                | 0.05            | 99.95         |
| 10            | -1.00       | 2.000             | 0.15                | 0.15            | 99.85         |
| 14            | -0.50       | 1.400             | 0.33                | 0.33            | 99.67         |
| 18            | 0.00        | 1.000             | 0.52                | 0.52            | 99.48         |
| 25            | 0.50        | 0.710             | 0.74                | 0.74            | 99.26         |
| 35            | 1.00        | 0.500             | 1.02                | 1.02            | 98.98         |
| 45            | 1.50        | 0.355             | 1.22                | 1.22            | 98.78         |
| 60            | 2.00        | 0.250             | 1.46                | 1.46            | 98.54         |
| 80            | 2.50        | 0.180             | 2.35                | 2.35            | 97.65         |
| 120           | 3.00        | 0.125             | 58.33               | 58.25           | 41.75         |
| 170           | 3.50        | 0.090             | 95.53               | 95.41           | 4.59          |
| 200           | 3.75        | 0.075             | 97.39               | 97.26           | 2.74          |
| 230           | 4.00        | 0.063             | 98.85               | 98.73           | 1.27          |
| PAN           |             |                   | 100.12              | 99.99           | 0.01          |

PHI(5): 2.52 PHI(16): 2.62 PHI(25): 2.70  
PHI(50): 2.93 PHI(75): 3.23 PHI(84): 3.35  
PHI(95): 3.49

SIEVE LOSS(g): 0.01 SILT/CLAY: 2.74%  
SKEWNESS: 0.229 KURTOSIS: 0.761

GRAPHIC METHOD

MEAN (PHI): 2.98 SORTING: 0.36  
MEAN (mm): 0.13 MEDIAN (mm): 0.13  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.93 SORTING: 0.44  
MEAN (mm): 0.13

DATA FILE NAME: JP#7 TOP.TAB

GRADATION ANALYSIS REPORT  
ESTERO JET PROBES 2000  
TESTED BY: ID ON: 5/00

SAMPLE NO.: JP#7 MID  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 0.0  
SAMPLE TYPE: SURFACE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 100.15  
SAMPLE WEIGHT AFTER WASH (GRAMS): 97.18

| SIEVE<br>SIZE | PHI<br>SIZE | MESH SIZE<br>(mm) | RETAINED<br>(GRAMS) | RETAINED<br>(%) | PASSED<br>(%) |
|---------------|-------------|-------------------|---------------------|-----------------|---------------|
| 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             | 0.12                | 0.12            | 99.88         |
| 7             | -1.50       | 2.800             | 0.36                | 0.36            | 99.64         |
| 10            | -1.00       | 2.000             | 0.70                | 0.70            | 99.30         |
| 14            | -0.50       | 1.400             | 1.26                | 1.26            | 98.74         |
| 18            | 0.00        | 1.000             | 1.83                | 1.83            | 98.17         |
| 25            | 0.50        | 0.710             | 2.41                | 2.41            | 97.59         |
| 35            | 1.00        | 0.500             | 3.02                | 3.02            | 96.98         |
| 45            | 1.50        | 0.355             | 3.44                | 3.43            | 96.57         |
| 60            | 2.00        | 0.250             | 4.02                | 4.01            | 95.99         |
| 80            | 2.50        | 0.180             | 4.55                | 4.54            | 95.46         |
| 120           | 3.00        | 0.125             | 44.32               | 44.25           | 55.75         |
| 170           | 3.50        | 0.090             | 93.88               | 93.74           | 6.26          |
| 200           | 3.75        | 0.075             | 96.78               | 96.64           | 3.36          |
| 230           | 4.00        | 0.063             | 98.61               | 98.46           | 1.54          |
| PAN           |             |                   | 100.14              | 99.99           | 0.01          |

|               |               |               |
|---------------|---------------|---------------|
| PHI(5): 2.51  | PHI(16): 2.64 | PHI(25): 2.76 |
| PHI(50): 3.06 | PHI(75): 3.31 | PHI(84): 3.40 |
| PHI(95): 3.61 |               |               |

|                     |                  |
|---------------------|------------------|
| SIEVE LOSS(g): 0.01 | SILT/CLAY: 3.36% |
| SKEWNESS: -0.002    | KURTOSIS: 0.817  |

GRAPHIC METHOD

|  |                   |
|--|-------------------|
| MEAN (PHI): 3.04                               | SORTING: 0.38     |
| MEAN (mm): 0.12                                | MEDIAN (mm): 0.12 |
| NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD |                   |

MOMENT METHOD

|                  |               |
|------------------|---------------|
| MEAN (PHI): 2.94 | SORTING: 0.69 |
| MEAN (mm): 0.13  |               |

DATA FILE NAME: JP#7 MID.TAB



GRADATION ANALYSIS REPORT  
ESTERO JET PROBES 2000  
TESTED BY: ID ON: 5/00

SAMPLE NO.: JP#7 BOTT  
SAMPLE ELEV. (FT. NGVD): 0.0  
SAMPLE DEPTH (FT.): 0.0  
SAMPLE TYPE: SURFACE SAMPLE

USCS DESCRIPTION: SP

DRY SAMPLE WEIGHT (GRAMS): 99.84  
SAMPLE WEIGHT AFTER WASH (GRAMS): 95.58

| SIEVE<br>SIZE | PHI<br>SIZE | MESH SIZE<br>(mm) | RETAINED<br>(GRAMS) | RETAINED<br>(%) | PASSED<br>(%) |
|---------------|-------------|-------------------|---------------------|-----------------|---------------|
| 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             | 0.09                | 0.09            | 99.91         |
| 7             | -1.50       | 2.800             | 0.70                | 0.70            | 99.30         |
| 10            | -1.00       | 2.000             | 1.57                | 1.57            | 98.43         |
| 14            | -0.50       | 1.400             | 2.75                | 2.75            | 97.25         |
| 18            | 0.00        | 1.000             | 4.07                | 4.08            | 95.92         |
| 25            | 0.50        | 0.710             | 5.57                | 5.58            | 94.42         |
| 35            | 1.00        | 0.500             | 7.06                | 7.07            | 92.93         |
| 45            | 1.50        | 0.355             | 8.57                | 8.58            | 91.42         |
| 60            | 2.00        | 0.250             | 11.53               | 11.55           | 88.45         |
| 80            | 2.50        | 0.180             | 14.95               | 14.97           | 85.03         |
| 120           | 3.00        | 0.125             | 63.34               | 63.44           | 36.56         |
| 170           | 3.50        | 0.090             | 92.81               | 92.96           | 7.04          |
| 200           | 3.75        | 0.075             | 95.36               | 95.51           | 4.49          |
| 230           | 4.00        | 0.063             | 97.69               | 97.85           | 2.15          |
| PAN           |             |                   | 99.83               | 99.99           | 0.01          |

PHI(5): 0.31 PHI(16): 2.51 PHI(25): 2.60  
PHI(50): 2.86 PHI(75): 3.20 PHI(84): 3.35  
PHI(95): 3.70

SIEVE LOSS(g): 0.01 SILT/CLAY: 4.49%  
SKEWNESS: -2.048 KURTOSIS: 2.347

GRAPHIC METHOD

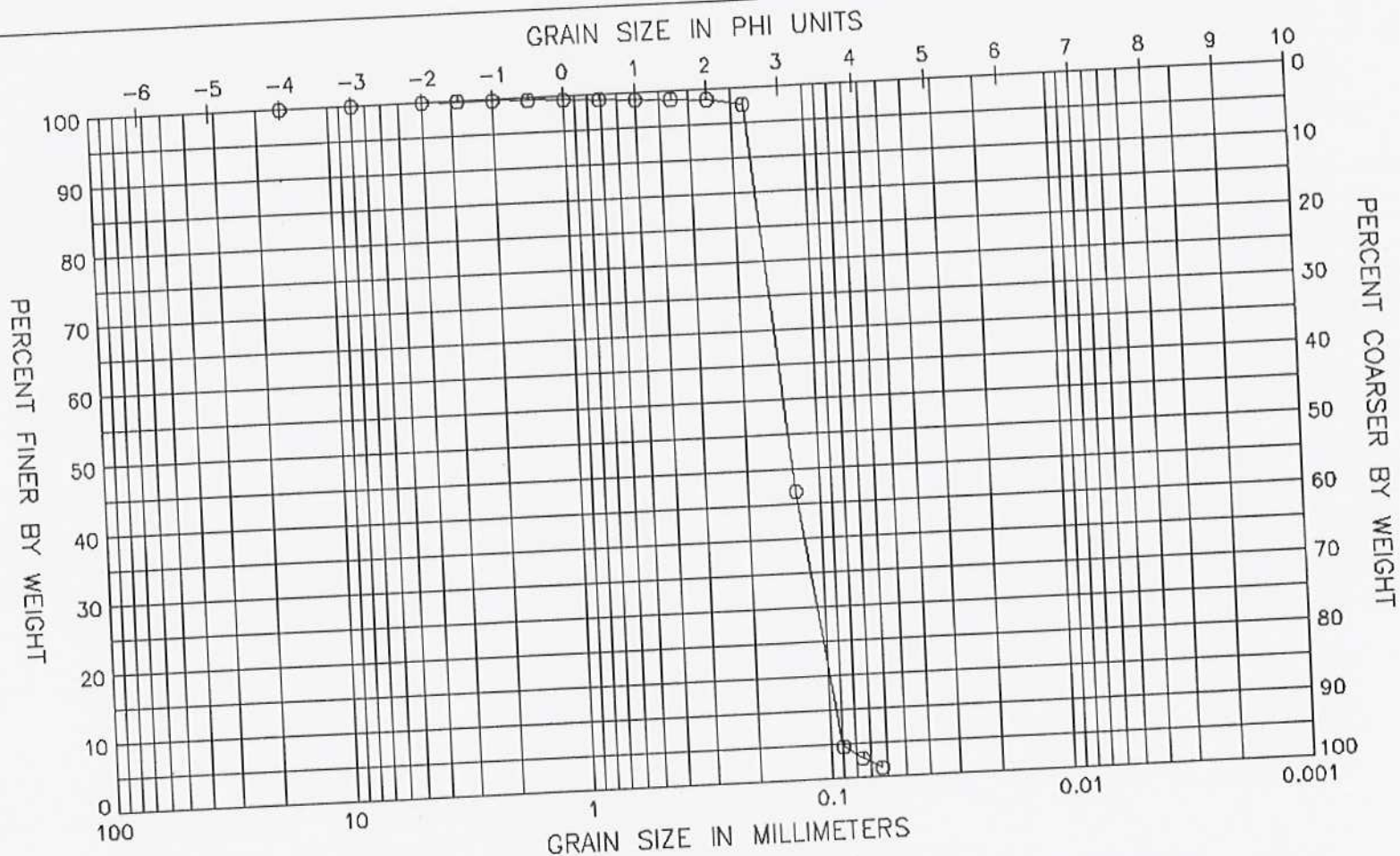
MEAN (PHI): 2.55 SORTING: 0.42  
MEAN (mm): 0.17 MEDIAN (mm): 0.14  
NOTE: MEAN WAS CALCULATED USING 5 POINT METHOD

MOMENT METHOD

MEAN (PHI): 2.66 SORTING: 0.96  
MEAN (mm): 0.16

DATA FILE NAME: JP#7 BOTT.TAB

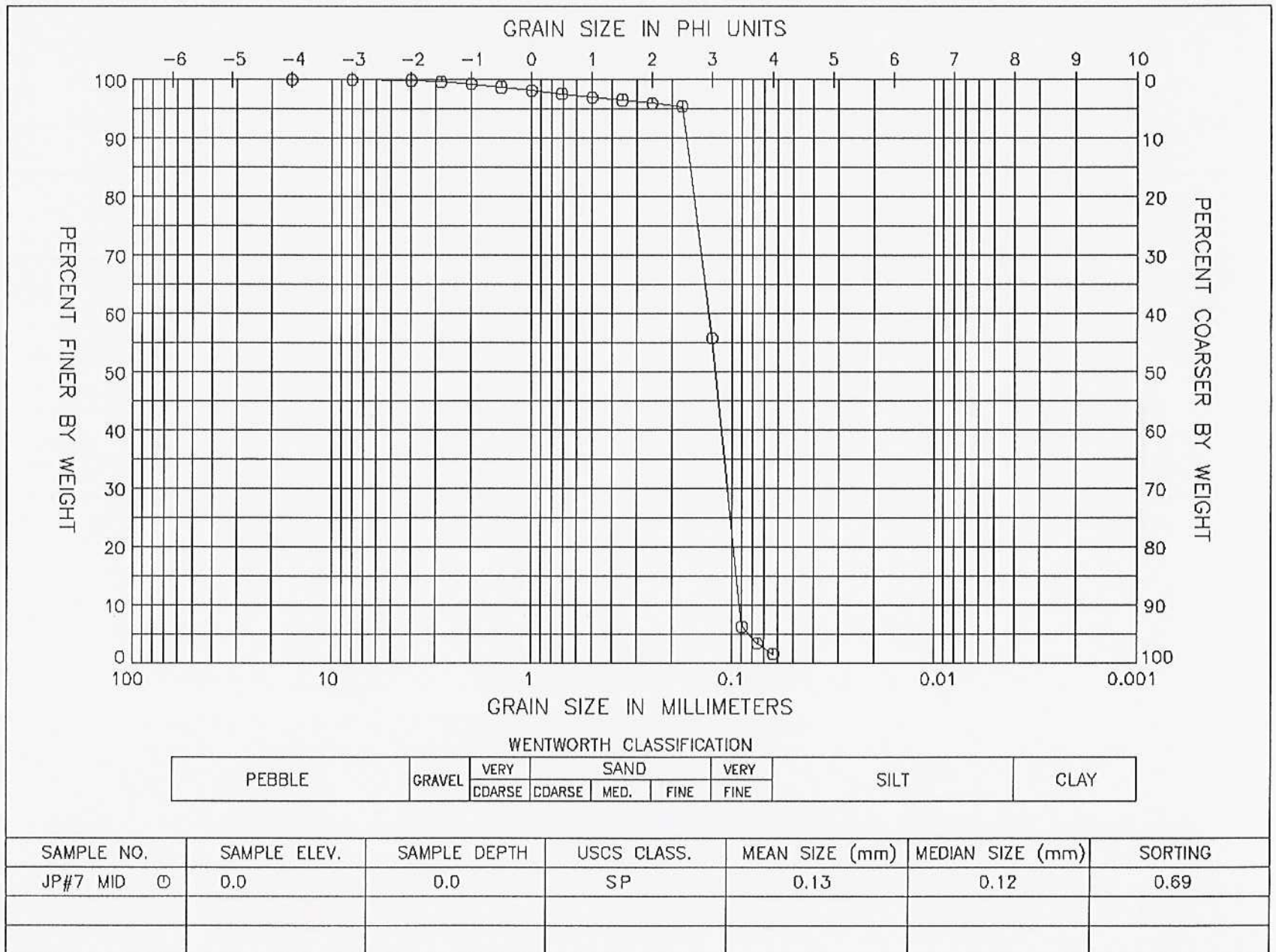
# GRAIN SIZE DISTRIBUTION CURVE ESTERO JET PROBES 2000



| WENTWORTH CLASSIFICATION |        |        |        |      |      |      |      |      |
|--------------------------|--------|--------|--------|------|------|------|------|------|
| PEBBLE                   | GRAVEL | VERY   | SAND   |      |      | VERY | SILT | CLAY |
|                          |        | COARSE | COARSE | MED. | FINE | FINE |      |      |

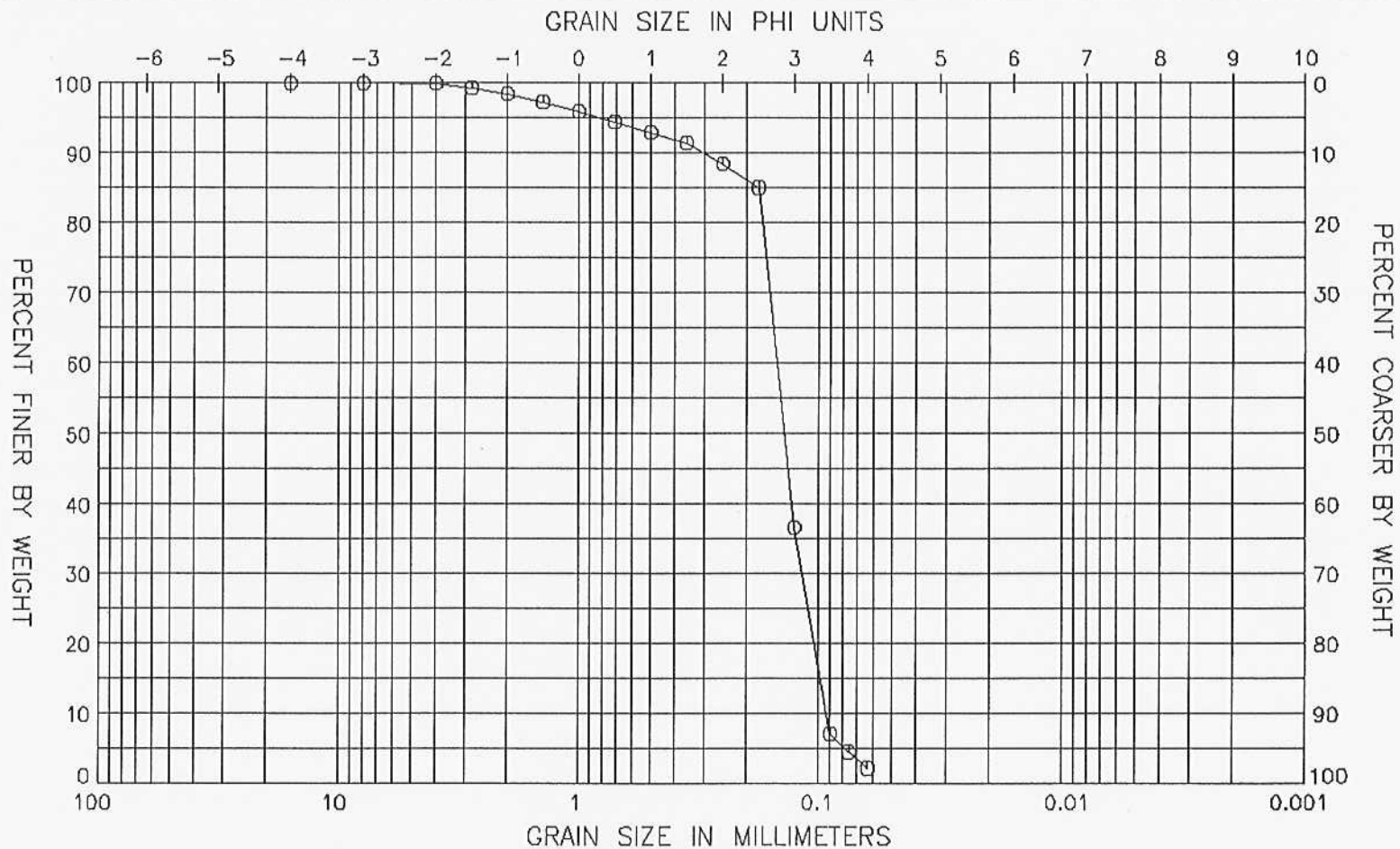
| SAMPLE NO.       | SAMPLE ELEV. | SAMPLE DEPTH | USCS CLASS. | MEAN SIZE (mm) | MEDIAN SIZE (mm) | SORTING |
|------------------|--------------|--------------|-------------|----------------|------------------|---------|
| JP#7 TOP $\odot$ | 0.0          | 0.0          | SP          | 0.13           | 0.13             | 0.44    |
|                  |              |              |             |                |                  |         |
|                  |              |              |             |                |                  |         |

# GRAIN SIZE DISTRIBUTION CURVE ESTERO JET PROBES 2000





# GRAIN SIZE DISTRIBUTION CURVE ESTERO JET PROBES 2000



## WENTWORTH CLASSIFICATION

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

| SAMPLE NO.  | SAMPLE ELEV. | SAMPLE DEPTH | USCS CLASS. | MEAN SIZE (mm) | MEDIAN SIZE (mm) | SORTING |
|-------------|--------------|--------------|-------------|----------------|------------------|---------|
| JP#7 BOTT Ø | 0.0          | 0.0          | SP          | 0.16           | 0.14             | 0.96    |
|             |              |              |             |                |                  |         |
|             |              |              |             |                |                  |         |