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**HYDRAULICS DIVISION**

TECHNICAL NOTE

**DATE:** March 1982 **REPORT NO:** 82-04

**TITLE:** Particle Size Data Report 82-03

**AUTHOR:** G. A. Duncan

**REASON FOR REPORT:** This report responds to a request for particle size data from Dr. R. Bourbonniere, AED.

**CORRESPONDENCE FILE NO:**
5690 (Study No. 2302)

## 1.0 INTRODUCTION

This report provides the results of particle size analysis on sediments from Lake Ontario. Dr. R. A. Bourbonniere, AED, submitted 41 samples for the Lake Ontario Sediment Bank (Study 477F) requesting sand, silt and clay percentages.

The samples were analysed by K. Salisbury under study HD 2302.

## 2.0 PROCEDURE

The Sieve and Sedigraph Method which provides sand, silt and clay percentages was used to analyse the samples.

Briefly the procedure consists of:

1. Splitting the sample to 2g.
2. Removing particles large enough to block Sedigraph Suction Tube (0.088 mm).
3. Dispersing sample in a Calgon suspension.
4. Automatic analysis with the Sedigraph.
5. Processing the results with SIZDIST: a FORTRAN IV computer program (Sandilands and Duncan, 1980).

## 3.0 RESULTS

For the Sieve and Sedigraph Method, the output consists of:

1. A histogram of the frequency distribution.
2. The percentage and cumulative percentages of the material occurring within each 1/2 PHI unit.
3. Moment measure statistics (Krumbein & Pettijohn, 1938) and graphic (Folk and Ward, 1957) statistics.
4. Percentiles.
5. Percent gravel, sand, silt and clay.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1974) Ternary Classifications.

## REFERENCES


Duncan, G. A. and LaHaie, G. G., 1979. "Size Analysis Procedures Used in the Sedimentology Laboratory, NWRI". NWRI, CCIW, Hydraulics Division Manual, September 1979.

Folk, R. L., 1968. "Petrology of Sedimentary Rocks". Hemphill Publishing Co., Austin, Texas 182 p.

Folk, R. L. and Ward, W. C., 1957. "Brazos River Bar: A Study in the Significance of Grain Size Parameters". Jour. Sed. Petrology, V. 27, pp. 3-26.

Krumbein, W. C. and Pettijohn, F. J., 1938. "Manual of Sedimentary Petrography". Appleton-Century-Crofts, New York, 549 p.

Sandilands, R. G. and Duncan, G. A., 1980. "SIZDIST - A Computer Program for Size Analysis". NWRI, CCIW, Hydraulics Division Technical Note, Report No. 80-08.

Shepard, F. P., 1954. "Nomenclature Based on Sand-Silt Ratios". Jour. Sed. Petrology, V. 24, pp. 151-158.

# APPENDIX 1

# SIZDIST OUTPUT

LO81 C-22 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 26.00 | | ********** |
| 4.00 | | 26.00 | |
| | 18.00 | | ********** |
| 4.50 | | 44.00 | |
| | 14.00 | | ********** |
| 5.00 | | 58.00 | |
| | 8.00 | | ******** |
| 5.50 | | 66.00 | |
| | 5.00 | | ***** |
| 6.00 | | 71.00 | |
| | 4.00 | | **** |
| 6.50 | | 75.00 | |
| | 3.00 | | *** |
| 7.00 | | 78.00 | |
| | 3.00 | | *** |
| 7.50 | | 81.00 | |
| | 3.00 | | *** |
| 8.00 | | 84.00 | |
| | 1.00 | | * |
| 8.50 | | 85.00 | |
| | 2.00 | | ** |
| 9.00 | | 87.00 | |
| | 13.00 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 4.71 5TH****** 16TH****** 25TH******
75TH 6.50 84TH 8.00 95TH******

PCT. GRAVEL .00 SAND 26.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 58.00 (SEDIGRAPH) 16.00

GRAVEL+SAND 26.00 SILT/(SILT+CLAY) 78.38PCT.GRAV+SAND/SILT+CLAY .35

LABELS SHEPARD -SANDY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

L081 C-23 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 5.10 | | ***** |
| 4.00 | | 5.10 | |
| | 5.10 | | ***** |
| 4.50 | | 10.20 | |
| | 15.31 | | ********** |
| 5.00 | | 25.51 | |
| | 16.33 | | ********** |
| 5.50 | | 41.84 | |
| | 11.22 | | ********** |
| 6.00 | | 53.06 | |
| | 9.18 | | ********* |
| 6.50 | | 62.24 | |
| | 7.14 | | ******* |
| 7.00 | | 69.39 | |
| | 7.14 | | ******* |
| 7.50 | | 76.53 | |
| | 5.10 | | ***** |
| 8.00 | | 81.63 | |
| | 3.06 | | *** |
| 8.50 | | 84.69 | |
| | 3.06 | | *** |
| 9.00 | | 87.76 | |
| | 12.24 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 5.86 5TH****** 16TH 4.69 25TH 4.98
75TH 7.39 84TH 8.39 95TH******

PCT. GRAVEL .00 SAND 5.10 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 76.53 (SEDIGRAPH) 18.37

GRAVEL+SAND 5.10 SILT/(SILT+CLAY) 80.65PCT.GRAV+SAND/SILT+CLAY .05

LABELS SHEPARD -SILT FOLK(GMS)-MUD (SCS)-SILT

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L081 D-21 120282          SEDIGRAPH ANALYSIS

  PHI  PCT. CUMPCT.                                          02/16/82
 3.50
       0.00
 4.00          0.00
       0.00
 4.50          0.00
       2.15              **
 5.00          2.15
       3.23              ***
 5.50          5.38
       4.30              ****
 6.00          9.68
       7.53              ********
 6.50         17.20
       9.68              **********
 7.00         26.88
      11.83              ************
 7.50         38.71
      10.75              ***********
 8.00         49.46
       9.68              **********
 8.50         59.14
       5.38              *****
 9.00         64.52
      35.48              ************************************
*****        100.00

  MEAN  ST.DEV. SKEWNESS KURTOSIS

   7.13    1.04    -.20    -.55    KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
                                   FOR SIZE RANGE  4.0 TO   9.0 PHI

 > 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES     MEDIAN  8.03     5TH  5.44     16TH  6.42     25TH  6.90
                                75TH******     84TH******     95TH******

PCT.  GRAVEL     .00  SAND   0.00  SILT (PIPETTE)   0.00  CLAY (PIPETTE)   0.00
                                     (SEDIGRAPH)  49.46     (SEDIGRAPH)  50.54

GRAVEL+SAND     .00   SILT/(SILT+CLAY)  49.46PCT.GRAV+SAND/SILT+CLAY     .00
LABELS SHEPARD -SILTY CLAY  FOLK(GMS)-MUD                  (SCS)-MUD
```

L081 D-26 120282 SEDIGRAPH ANALYSIS

02/19/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 2.86 | | *** |
| 5.00 | | 2.86 | |
| | 1.43 | | * |
| 5.50 | | 4.29 | |
| | 5.71 | | ****** |
| 6.00 | | 10.00 | |
| | 10.00 | | ********** |
| 6.50 | | 20.00 | |
| | 10.00 | | ********** |
| 7.00 | | 30.00 | |
| | 11.43 | | ********** |
| 7.50 | | 41.43 | |
| | 11.43 | | ********** |
| 8.00 | | 52.86 | |
| | 8.57 | | ********* |
| 8.50 | | 61.43 | |
| | 7.14 | | ******* |
| 9.00 | | 68.57 | |
| | 31.43 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 7.13 | 1.05 | -.15 | -.58 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.88 5TH 5.56 16TH 6.30 25TH 6.75
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 52.86 (SEDIGRAPH) 47.14

GRAVEL+SAND .00 SILT/(SILT+CLAY) 52.86PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 D-29 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 1.01 | | * |
| 4.50 | | 1.01 | |
| | 6.06 | | ****** |
| 5.00 | | 7.07 | |
| | 9.09 | | ********* |
| 5.50 | | 16.16 | |
| | 10.10 | | ********** |
| 6.00 | | 26.26 | |
| | 10.10 | | ********** |
| 6.50 | | 36.36 | |
| | 9.09 | | ********* |
| 7.00 | | 45.45 | |
| | 11.11 | | ********** |
| 7.50 | | 56.57 | |
| | 9.09 | | ********* |
| 8.00 | | 65.66 | |
| | 6.06 | | ****** |
| 8.50 | | 71.72 | |
| | 7.07 | | ******* |
| 9.00 | | 78.79 | |
| | 21.21 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.68 | 1.22 | .02 | -1.02 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.20 5TH 4.83 16TH 5.49 25TH 5.94
75TH 8.73 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 65.66 (SEDIGRAPH) 34.34

GRAVEL+SAND .00 SILT/(SILT+CLAY) 65.66PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 E-6 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 1.04 | | * |
| 4.50 | | 1.04 | |
| | 4.17 | | **** |
| 5.00 | | 5.21 | |
| | 7.29 | | ******* |
| 5.50 | | 12.50 | |
| | 8.33 | | ******** |
| 6.00 | | 20.83 | |
| | 9.38 | | ********* |
| 6.50 | | 30.21 | |
| | 10.42 | | ********** |
| 7.00 | | 40.63 | |
| | 10.42 | | ********** |
| 7.50 | | 51.04 | |
| | 10.42 | | ********** |
| 8.00 | | 61.46 | |
| | 7.29 | | ******* |
| 8.50 | | 68.75 | |
| | 7.29 | | ******* |
| 9.00 | | 76.04 | |
| | 23.96 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.83 | 1.19 | -.06 | -.94 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.45 5TH 4.98 16TH 5.71 25TH 6.22
75TH 8.93 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 61.46 (SEDIGRAPH) 38.54

GRAVEL+SAND .00 SILT/(SILT+CLAY) 61.46PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 E-17 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.01 | | * |
| 4.00 | | 1.01 | |
| | 1.01 | | * |
| 4.50 | | 2.02 | |
| ! | | | |
| | 7.07 | | ******* |
| 5.00 | | 9.09 | |
| | 7.07 | | ******* |
| 5.50 | | 16.16 | |
| | 9.09 | | ********* |
| 6.00 | | 25.25 | |
| | 11.11 | | ********** |
| 6.50 | | 36.36 | |
| | 10.10 | | ********** |
| 7.00 | | 46.46 | |
| | 10.10 | | ********** |
| 7.50 | | 56.57 | |
| | 9.09 | | ********* |
| 8.00 | | 65.66 | |
| | 6.06 | | ****** |
| 8.50 | | 71.72 | |
| | 5.05 | | ***** |
| 9.00 | | 76.77 | |
| | 23.23 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.60 | 1.22 | -.04 | -.81 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.18 5TH 4.71 16TH 5.49 25TH 5.99
75TH 8.83 84TH****** 95TH******

PCT. GRAVEL .00 SAND 1.01 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 64.65 (SEDIGRAPH) 34.34

GRAVEL+SAND 1.01 SILT/(SILT+CLAY) 65.31PCT.GRAV+SAND/SILT+CLAY .01

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 E-30 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 5.00 | | ***** |
| 4.00 | | 5.00 | |
| | 1.67 | | ** |
| 4.50 | | 6.67 | |
| | 8.33 | | ******** |
| 5.00 | | 15.00 | |
| | 11.67 | | ********** |
| 5.50 | | 26.67 | |
| | 6.67 | | ******* |
| 6.00 | | 33.33 | |
| | 13.33 | | ********** |
| 6.50 | | 46.67 | |
| | 10.00 | | ********** |
| 7.00 | | 56.67 | |
| | 8.33 | | ******** |
| 7.50 | | 65.00 | |
| | 5.00 | | ***** |
| 8.00 | | 70.00 | |
| | 5.00 | | ***** |
| 8.50 | | 75.00 | |
| | 5.00 | | ***** |
| 9.00 | | 80.00 | |
| | 20.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.25 | 1.34 | .03 | -.72 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 6.67 5TH 4.00 16TH 5.04 25TH 5.43
75TH 8.50 84TH****** 95TH******

PCT. GRAVEL .00 SAND 5.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 65.00 (SEDIGRAPH) 30.00

GRAVEL+SAND 5.00 SILT/(SILT+CLAY) 68.42 PCT.GRAV+SAND/SILT+CLAY .05

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 E-33 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 38.78 | | ********** |
| 4.00 | | 38.78 | |
| | 20.41 | | ********** |
| 4.50 | | 59.18 | |
| | 13.27 | | ********** |
| 5.00 | | 72.45 | |
| | 5.61 | | ****** |
| 5.50 | | 78.06 | |
| | 2.55 | | *** |
| 6.00 | | 80.61 | |
| | 2.04 | | ** |
| 6.50 | | 82.65 | |
| | 2.04 | | ** |
| 7.00 | | 84.69 | |
| | 2.04 | | ** |
| 7.50 | | 86.73 | |
| | 2.04 | | ** |
| 8.00 | | 88.78 | |
| | 1.02 | | * |
| 8.50 | | 89.80 | |
| | 2.04 | | ** |
| 9.00 | | 91.84 | |
| | 8.16 | | ******** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 4.28 5TH****** 16TH****** 25TH******
75TH 5.23 84TH 6.83 95TH******

PCT. GRAVEL .00 SAND 38.78 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 50.00 (SEDIGRAPH) 11.22

GRAVEL+SAND 38.78 SILT/(SILT+CLAY) 81.67PCT.GRAV+SAND/SILT+CLAY .63

LABELS SHEPARD -SANDY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

L081 F-12 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| 4.00 | 3.09 | 3.09 | *** |
| 4.50 | 3.09 | 6.19 | *** |
| 5.00 | 4.12 | 10.31 | **** |
| 5.50 | 4.12 | 14.43 | **** |
| 6.00 | 6.19 | 20.62 | ****** |
| 6.50 | 7.22 | 27.84 | ******* |
| 7.00 | 9.28 | 37.11 | ********* |
| 7.50 | 11.34 | 48.45 | ********** |
| 8.00 | 9.28 | 57.73 | ********* |
| 8.50 | 8.25 | 65.98 | ******** |
| 9.00 | 6.19 | 72.16 | ****** |
| ***** | 27.84 | 100.00 | ********** |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.73 | 1.37 | -.24 | -.64 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.58 5TH 4.31 16TH 5.63 25TH 6.30
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 3.09 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 54.64 (SEDIGRAPH) 42.27

GRAVEL+SAND 3.09 SILT/(SILT+CLAY) 56.38PCT.GRAV+SAND/SILT+CLAY .03

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 F-25 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 1.01 | | * |
| 4.50 | | 1.01 | |
| | 4.04 | | **** |
| 5.00 | | 5.05 | |
| | 8.08 | | ******** |
| 5.50 | | 13.13 | |
| | 10.10 | | ********** |
| 6.00 | | 23.23 | |
| | 9.09 | | ********* |
| 6.50 | | 32.32 | |
| | 11.11 | | ********** |
| 7.00 | | 43.43 | |
| | 15.15 | | ********** |
| 7.50 | | 58.59 | |
| | 9.09 | | ********* |
| 8.00 | | 67.68 | |
| | 8.08 | | ******** |
| 8.50 | | 75.76 | |
| | 7.07 | | ******* |
| 9.00 | | 82.83 | |
| | 17.17 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.82 | 1.16 | -.06 | -.88 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.22 5TH 4.99 16TH 5.64 25TH 6.10
75TH 8.45 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 67.68 (SEDIGRAPH) 32.32

GRAVEL+SAND .00 SILT/(SILT+CLAY) 67.68PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 F-27 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 8.08 | | ******** |
| 4.00 | | 8.08 | |
| | 8.08 | | ******** |
| 4.50 | | 16.16 | |
| | 11.11 | | ********** |
| 5.00 | | 27.27 | |
| | 9.09 | | ********* |
| 5.50 | | 36.36 | |
| | 8.08 | | ******** |
| 6.00 | | 44.44 | |
| | 9.09 | | ********* |
| 6.50 | | 53.54 | |
| | 8.08 | | ******** |
| 7.00 | | 61.62 | |
| | 9.09 | | ********* |
| 7.50 | | 70.71 | |
| | 5.05 | | ***** |
| 8.00 | | 75.76 | |
| | 4.04 | | **** |
| 8.50 | | 79.80 | |
| | 3.03 | | *** |
| 9.00 | | 82.83 | |
| | 17.17 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 6.31 5TH****** 16TH 4.49 25TH 4.90
75TH 7.93 84TH****** 95TH******

PCT. GRAVEL .00 SAND 8.08 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 67.68 (SEDIGRAPH) 24.24

GRAVEL+SAND 8.08 SILT/(SILT+CLAY) 73.63PCT.GRAV+SAND/SILT+CLAY .09

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 F-29 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 2.30 | | ** |
| 4.50 | | 2.30 | |
| | 5.75 | | ****** |
| 5.00 | | 8.05 | |
| | 5.75 | | ****** |
| 5.50 | | 13.79 | |
| | 8.05 | | ******** |
| 6.00 | | 21.84 | |
| | 9.20 | | ********* |
| 6.50 | | 31.03 | |
| | 10.34 | | ********** |
| 7.00 | | 41.38 | |
| | 10.34 | | ********** |
| 7.50 | | 51.72 | |
| | 8.05 | | ******** |
| 8.00 | | 59.77 | |
| | 5.75 | | ****** |
| 8.50 | | 65.52 | |
| | 6.90 | | ******* |
| 9.00 | | 72.41 | |
| | 27.59 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.71 | 1.24 | -.05 | -.88 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.42 5TH 4.74 16TH 5.64 25TH 6.17
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 59.77 (SEDIGRAPH) 40.23

GRAVEL+SAND .00 SILT/(SILT+CLAY) 59.77PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 F-34 110282 SEDIGRAPH ANALYSIS

02/17/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 2.02 | | ** |
| 4.00 | | 2.02 | |
| | 0.00 | | |
| 4.50 | | 2.02 | |
| | 4.04 | | **** |
| 5.00 | | 6.06 | |
| | 10.10 | | ********** |
| 5.50 | | 16.16 | |
| | 12.12 | | ********** |
| 6.00 | | 28.28 | |
| | 15.15 | | ********** |
| 6.50 | | 43.43 | |
| | 11.11 | | ********** |
| 7.00 | | 54.55 | |
| | 10.10 | | ********** |
| 7.50 | | 64.65 | |
| | 8.08 | | ******** |
| 8.00 | | 72.73 | |
| | 4.04 | | **** |
| 8.50 | | 76.77 | |
| | 4.04 | | **** |
| 9.00 | | 80.81 | |
| | 19.19 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.48 | 1.13 | .02 | -.36 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 6.80 5TH 4.87 16TH 5.49 25TH 5.86
75TH 8.28 84TH****** 95TH******

PCT. GRAVEL .00 SAND 2.02 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 70.71 (SEDIGRAPH) 27.27

GRAVEL+SAND 2.02 SILT/(SILT+CLAY) 72.16PCT.GRAV+SAND/SILT+CLAY .02

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 G-18 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 1.15 | | * |
| 4.50 | | 1.15 | |
| | 1.15 | | * |
| 5.00 | | 2.30 | |
| | 6.90 | | ******* |
| 5.50 | | 9.20 | |
| | 4.60 | | ***** |
| 6.00 | | 13.79 | |
| | 8.05 | | ******** |
| 6.50 | | 21.84 | |
| | 9.20 | | ********* |
| 7.00 | | 31.03 | |
| | 12.64 | | ********** |
| 7.50 | | 43.68 | |
| | 9.20 | | ********* |
| 8.00 | | 52.87 | |
| | 8.05 | | ******** |
| 8.50 | | 60.92 | |
| | 8.05 | | ******** |
| 9.00 | | 68.97 | |
| | 31.03 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 7.03 | 1.15 | -.16 | -.71 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.84 5TH 5.20 16TH 6.14 25TH 6.67
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 52.87 (SEDIGRAPH) 47.13

GRAVEL+SAND .00 SILT/(SILT+CLAY) 52.87PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

LO81 G-21 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 3.03 | | *** |
| 5.00 | | 3.03 | |
| | 4.04 | | **** |
| 5.50 | | 7.07 | |
| | 7.07 | | ******* |
| 6.00 | | 14.14 | |
| | 10.10 | | ********** |
| 6.50 | | 24.24 | |
| | 11.11 | | ********** |
| 7.00 | | 35.35 | |
| | 14.14 | | ********** |
| 7.50 | | 49.49 | |
| | 11.11 | | ********** |
| 8.00 | | 60.61 | |
| | 8.08 | | ******** |
| 8.50 | | 68.69 | |
| | 8.08 | | ******** |
| 9.00 | | 76.77 | |
| | 23.23 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 7.04 | 1.08 | -.11 | -.72 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.52 5TH 5.24 16TH 6.09 25TH 6.53
75TH 8.89 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 60.61 (SEDIGRAPH) 39.39

GRAVEL+SAND .00 SILT/(SILT+CLAY) 60.61PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

```
L081 G-29 120282          SEDIGRAPH ANALYSIS

  PHI  PCT. CUMPCT.                                          02/16/82
 3.50 ASSUMED UPPER LIMIT
       1.00              *
 4.00          1.00
       0.00
 4.50          1.00
       3.00              ***
 5.00          4.00
       6.00              ******
 5.50         10.00
       6.00              ******
 6.00         16.00
      12.00              ************
 6.50         28.00
       9.00              *********
 7.00         37.00
      14.00              **************
 7.50         51.00
      11.00              ***********
 8.00         62.00
       8.00              ********
 8.50         70.00
       7.00              *******
 9.00         77.00
      23.00              ************************
*****        100.00
  MEAN  ST.DEV. SKEWNESS KURTOSIS

   6.93    1.15    -.17    -.47    KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
                                   FOR SIZE RANGE  4.0 TO   9.0 PHI
 > 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES     MEDIAN  7.46     5TH  5.08     16TH  6.00     25TH  6.38
                                75TH  8.86     84TH******     95TH******
PCT.  GRAVEL    .00  SAND   1.00  SILT (PIPETTE)   0.00  CLAY (PIPETTE)   0.00
                                     (SEDIGRAPH)  61.00     (SEDIGRAPH)  38.00
GRAVEL+SAND   1.00   SILT/(SILT+CLAY)  61.62PCT.GRAV+SAND/SILT+CLAY      .01
LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD                  (SCS)-MUD
```

L081 G-32 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.01 | | * |
| 4.00 | | 1.01 | |
| | 2.02 | | ** |
| 4.50 | | 3.03 | |
| | 5.05 | | ***** |
| 5.00 | | 8.08 | |
| | 8.08 | | ******** |
| 5.50 | | 16.16 | |
| | 10.10 | | ********** |
| 6.00 | | 26.26 | |
| | 13.13 | | ********** |
| 6.50 | | 39.39 | |
| | 11.11 | | ********** |
| 7.00 | | 50.51 | |
| | 13.13 | | ********** |
| 7.50 | | 63.64 | |
| | 8.08 | | ******** |
| 8.00 | | 71.72 | |
| | 7.07 | | ******* |
| 8.50 | | 78.79 | |
| | 4.04 | | **** |
| 9.00 | | 82.83 | |
| | 17.17 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.59 | 1.18 | -.06 | -.64 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 6.98 5TH 4.70 16TH 5.49 25TH 5.94
75TH 8.23 84TH****** 95TH******

PCT. GRAVEL .00 SAND 1.01 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 70.71 (SEDIGRAPH) 28.28

GRAVEL+SAND 1.01 SILT/(SILT+CLAY) 71.43PCT.GRAV+SAND/SILT+CLAY .01

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 G-33 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 13.13 | | ********** |
| 4.00 | | 13.13 | |
| | 6.06 | | ****** |
| 4.50 | | 19.19 | |
| | 6.06 | | ****** |
| 5.00 | | 25.25 | |
| | 9.09 | | ********* |
| 5.50 | | 34.34 | |
| | 10.10 | | ********** |
| 6.00 | | 44.44 | |
| | 12.12 | | ********** |
| 6.50 | | 56.57 | |
| | 10.10 | | ********** |
| 7.00 | | 66.67 | |
| | 8.08 | | ******** |
| 7.50 | | 74.75 | |
| | 6.06 | | ****** |
| 8.00 | | 80.81 | |
| | 3.03 | | *** |
| 8.50 | | 83.84 | |
| | 3.03 | | *** |
| 9.00 | | 86.87 | |
| | 13.13 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 6.23 5TH****** 16TH 4.24 25TH 4.98
75TH 7.52 84TH 8.53 95TH******

PCT. GRAVEL .00 SAND 13.13 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 67.68 (SEDIGRAPH) 19.19

GRAVEL+SAND 13.13 SILT/(SILT+CLAY) 77.91PCT.GRAV+SAND/SILT+CLAY .15

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

L081 H-31 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 2.02 | | ** |
| 4.50 | | 2.02 | |
| | 5.05 | | ***** |
| 5.00 | | 7.07 | |
| | 6.06 | | ****** |
| 5.50 | | 13.13 | |
| | 9.09 | | ********* |
| 6.00 | | 22.22 | |
| | 13.13 | | ************* |
| 6.50 | | 35.35 | |
| | 10.10 | | ********** |
| 7.00 | | 45.45 | |
| | 14.14 | | ************** |
| 7.50 | | 59.60 | |
| | 8.08 | | ******** |
| 8.00 | | 67.68 | |
| | 6.06 | | ****** |
| 8.50 | | 73.74 | |
| | 6.06 | | ****** |
| 9.00 | | 79.80 | |
| | 20.20 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.71 | 1.16 | -.04 | -.72 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.16 5TH 4.80 16TH 5.66 25TH 6.11
75TH 8.60 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 67.68 (SEDIGRAPH) 32.32

GRAVEL+SAND .00 SILT/(SILT+CLAY) 67.68PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 H-34 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 8.00 | | ******** |
| 5.00 | | 8.00 | |
| | 7.00 | | ******* |
| 5.50 | | 15.00 | |
| | 22.00 | | ********** |
| 6.00 | | 37.00 | |
| | 12.00 | | ********** |
| 6.50 | | 49.00 | |
| | 11.00 | | ********** |
| 7.00 | | 60.00 | |
| | 12.00 | | ********** |
| 7.50 | | 72.00 | |
| | 6.00 | | ****** |
| 8.00 | | 78.00 | |
| | 4.00 | | **** |
| 8.50 | | 82.00 | |
| | 3.00 | | *** |
| 9.00 | | 85.00 | |
| | 15.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.39 | 1.04 | .19 | -.57 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 6.55 5TH 4.81 16TH 5.52 25TH 5.73
75TH 7.75 84TH 8.83 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 78.00 (SEDIGRAPH) 22.00

GRAVEL+SAND .00 SILT/(SILT+CLAY) 78.00PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -SILT FOLK(GMS)-MUD (SCS)-SILT

L081 K-5 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 3.39 | | *** |
| 4.50 | | 3.39 | |
| | 11.86 | | ********** |
| 5.00 | | 15.25 | |
| | 10.17 | | ********** |
| 5.50 | | 25.42 | |
| | 10.17 | | ********** |
| 6.00 | | 35.59 | |
| | 6.78 | | ******* |
| 6.50 | | 42.37 | |
| | 5.08 | | ***** |
| 7.00 | | 47.46 | |
| | 10.17 | | ********** |
| 7.50 | | 57.63 | |
| | 6.78 | | ******* |
| 8.00 | | 64.41 | |
| | 5.08 | | ***** |
| 8.50 | | 69.49 | |
| | 3.39 | | *** |
| 9.00 | | 72.88 | |
| | 27.12 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.27 | 1.29 | .13 | -1.12 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.13 5TH 4.57 16TH 5.04 25TH 5.48
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 64.41 (SEDIGRAPH) 35.59

GRAVEL+SAND .00 SILT/(SILT+CLAY) 64.41PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 M-33 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| 4.00 | 2.04 | 2.04 | ** |
| 4.50 | 7.14 | 9.18 | ******* |
| 5.00 | 25.51 | 34.69 | ********** |
| 5.50 | 23.47 | 58.16 | ********** |
| 6.00 | 10.20 | 68.37 | ********** |
| 6.50 | 8.16 | 76.53 | ******** |
| 7.00 | 3.06 | 79.59 | *** |
| 7.50 | 3.06 | 82.65 | *** |
| 8.00 | 3.06 | 85.71 | *** |
| 8.50 | 2.04 | 87.76 | ** |
| 9.00 | 2.04 | 89.80 | ** |
| ***** | 10.20 | 100.00 | ********** |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 5.49 | 1.08 | .61 | 1.14 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 5.33 5TH 4.21 16TH 4.63 25TH 4.81
75TH 6.41 84TH 7.72 95TH******

PCT. GRAVEL .00 SAND 2.04 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 83.67 (SEDIGRAPH) 14.29

GRAVEL+SAND 2.04 SILT/(SILT+CLAY) 85.42PCT.GRAV+SAND/SILT+CLAY .02

LABELS SHEPARD -SILT FOLK(GMS)-MUD (SCS)-SILT

```
L081 S-2 100282            SEDIGRAPH ANALYSIS

  PHI  PCT. CUMPCT.                                          02/16/82
 3.50 ASSUMED UPPER LIMIT
       1.00              *
 4.00          1.00
       1.00              *
 4.50          2.00
       5.00              *****
 5.00          7.00
      11.00              ***********
 5.50         18.00
      13.00              *************
 6.00         31.00
      17.00              *****************
 6.50         48.00
      12.00              ************
 7.00         60.00
      12.00              ************
 7.50         72.00
       6.00              ******
 8.00         78.00
       4.00              ****
 8.50         82.00
       3.00              ***
 9.00         85.00
      15.00              ***************
*****        100.00

  MEAN  ST.DEV. SKEWNESS KURTOSIS

   6.40    1.07     .07    -.35    KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
                                    FOR SIZE RANGE  4.0 TO   9.0 PHI
 > 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES     MEDIAN  6.58     5TH  4.80     16TH  5.41     25TH  5.77
                                75TH  7.75     84TH  8.83     95TH******
PCT.  GRAVEL    .00  SAND   1.00  SILT (PIPETTE)   0.00  CLAY (PIPETTE)   0.00
                                     (SEDIGRAPH)  77.00     (SEDIGRAPH)  22.00
GRAVEL+SAND   1.00   SILT/(SILT+CLAY)  77.78PCT.GRAV+SAND/SILT+CLAY     .01
LABELS SHEPARD -SILT        FOLK(GMS)-MUD                  (SCS)-SILT
```

L081 S-4 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 14.29 | | ********** |
| 4.00 | | 14.29 | |
| | 17.35 | | ********** |
| 4.50 | | 31.63 | |
| | 16.33 | | ********** |
| 5.00 | | 47.96 | |
| | 8.16 | | ******** |
| 5.50 | | 56.12 | |
| | 7.14 | | ******* |
| 6.00 | | 63.27 | |
| | 6.12 | | ****** |
| 6.50 | | 69.39 | |
| | 6.12 | | ****** |
| 7.00 | | 75.51 | |
| | 4.08 | | **** |
| 7.50 | | 79.59 | |
| | 3.06 | | *** |
| 8.00 | | 82.65 | |
| | 2.04 | | ** |
| 8.50 | | 84.69 | |
| | 1.02 | | * |
| 9.00 | | 85.71 | |
| | 14.29 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 5.13 5TH****** 16TH 4.05 25TH 4.31
75TH 6.96 84TH 8.33 95TH******

PCT. GRAVEL .00 SAND 14.29 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 68.37 (SEDIGRAPH) 17.35

GRAVEL+SAND 14.29 SILT/(SILT+CLAY) 79.76PCT.GRAV+SAND/SILT+CLAY .17

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

LO81 S-13 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 2.13 | | ** |
| 5.00 | | 2.13 | |
| | 8.51 | | ********* |
| 5.50 | | 10.64 | |
| | 7.45 | | ******* |
| 6.00 | | 18.09 | |
| | 11.70 | | ********** |
| 6.50 | | 29.79 | |
| | 9.57 | | ********** |
| 7.00 | | 39.36 | |
| | 12.77 | | ********** |
| 7.50 | | 52.13 | |
| | 8.51 | | ********* |
| 8.00 | | 60.64 | |
| | 8.51 | | ********* |
| 8.50 | | 69.15 | |
| | 4.26 | | **** |
| 9.00 | | 73.40 | |
| | 26.60 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.83 | 1.08 | -.01 | -.96 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.42 5TH 5.17 16TH 5.86 25TH 6.30
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 60.64 (SEDIGRAPH) 39.36

GRAVEL+SAND .00 SILT/(SILT+CLAY) 60.64PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 S-15 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 5.00 | | ***** |
| 4.00 | | 5.00 | |
| | 5.00 | | ***** |
| 4.50 | | 10.00 | |
| | 5.00 | | ***** |
| 5.00 | | 15.00 | |
| | 5.00 | | ***** |
| 5.50 | | 20.00 | |
| | 8.00 | | ******** |
| 6.00 | | 28.00 | |
| | 8.00 | | ******** |
| 6.50 | | 36.00 | |
| | 11.00 | | ********** |
| 7.00 | | 47.00 | |
| | 11.00 | | ********** |
| 7.50 | | 58.00 | |
| | 7.00 | | ******* |
| 8.00 | | 65.00 | |
| | 8.00 | | ******** |
| 8.50 | | 73.00 | |
| | 6.00 | | ****** |
| 9.00 | | 79.00 | |
| | 21.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 6.49 | 1.44 | -.14 | -.88 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.14 5TH 4.00 16TH 5.10 25TH 5.81
75TH 8.67 84TH****** 95TH******

PCT. GRAVEL .00 SAND 5.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 60.00 (SEDIGRAPH) 35.00

GRAVEL+SAND 5.00 SILT/(SILT+CLAY) 63.16PCT.GRAV+SAND/SILT+CLAY .05

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

```
L081 S-18 120282          SEDIGRAPH ANALYSIS

  PHI  PCT. CUMPCT.                                          02/16/82
 3.50
       0.00
 4.00          0.00
        .52              *
 4.50           .52
       0.00
 5.00           .52
       3.11              ***
 5.50          3.63
       8.29              ********
 6.00         11.92
      11.40              ***********
 6.50         23.32
      12.44              ************
 7.00         35.75
      15.54              ****************
 7.50         51.30
      10.36              **********
 8.00         61.66
       8.29              ********
 8.50         69.95
       8.29              ********
 9.00         78.24
      21.76              **********************
*****        100.00

  MEAN  ST.DEV. SKEWNESS KURTOSIS

   7.10    1.00    -.04    -.66    KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
                                   FOR SIZE RANGE  4.0 TO   9.0 PHI

 > 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES     MEDIAN  7.46     5TH  5.58     16TH  6.18     25TH  6.57
                                75TH  8.80     84TH******     95TH******
PCT.  GRAVEL     .00  SAND   0.00  SILT (PIPETTE)   0.00  CLAY (PIPETTE)   0.00
                                     (SEDIGRAPH)  61.66     (SEDIGRAPH)  38.34
GRAVEL+SAND     .00   SILT/(SILT+CLAY)  61.66PCT.GRAV+SAND/SILT+CLAY     .00
LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD                  (SCS)-MUD
```

L081 S-22 120282 SEDIGRAPH ANALYSIS

02/19/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 5.00 | | ***** |
| 4.00 | | 5.00 | |
| | 60.00 | | ********** |
| 4.50 | | 65.00 | |
| | 23.00 | | ********** |
| 5.00 | | 88.00 | |
| | 5.00 | | ***** |
| 5.50 | | 93.00 | |
| | 0.00 | | |
| 6.00 | | 93.00 | |
| | 1.00 | | * |
| 6.50 | | 94.00 | |
| | .50 | | |
| 7.00 | | 94.50 | |
| | .50 | | |
| 7.50 | | 95.00 | |
| | 1.00 | | * |
| 8.00 | | 96.00 | |
| | 0.00 | | |
| 8.50 | | 96.00 | |
| | 1.00 | | * |
| 9.00 | | 97.00 | |
| | 3.00 | | *** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 4.53 | .71 | 1.85 | 16.54 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |
| 4.46 | .74 | .55 | 2.60 | FOLK GRAPHIC STATISTICAL PARAMETERS FOLK AND WARD,1957 |

PERCENTILES MEDIAN 4.38 5TH 4.00 16TH 4.09 25TH 4.17
75TH 4.72 84TH 4.91 95TH 7.50

PCT. GRAVEL .00 SAND 5.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 91.00 (SEDIGRAPH) 4.00

GRAVEL+SAND 5.00 SILT/(SILT+CLAY) 95.79PCT.GRAV+SAND/SILT+CLAY .05

LABELS SHEPARD -SILT FOLK(GMS)-MUD (SCS)-SILT

L081 S-24 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 1.00 | | * |
| 5.00 | | 1.00 | |
| | 3.50 | | *** |
| 5.50 | | 4.50 | |
| | 7.50 | | ******* |
| 6.00 | | 12.00 | |
| | 9.00 | | ********* |
| 6.50 | | 21.00 | |
| | 11.00 | | ********** |
| 7.00 | | 32.00 | |
| | 13.00 | | ********** |
| 7.50 | | 45.00 | |
| | 12.00 | | ********** |
| 8.00 | | 57.00 | |
| | 8.00 | | ******** |
| 8.50 | | 65.00 | |
| | 7.00 | | ******* |
| 9.00 | | 72.00 | |
| | 28.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 7.10 | 1.01 | -.09 | -.77 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.71 5TH 5.53 16TH 6.22 25TH 6.68
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 57.00 (SEDIGRAPH) 43.00

GRAVEL+SAND .00 SILT/(SILT+CLAY) 57.00PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 S-25 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.00 | | * |
| 4.00 | | 1.00 | |
| | 1.50 | | * |
| 4.50 | | 2.50 | |
| | 4.50 | | **** |
| 5.00 | | 7.00 | |
| | 10.00 | | ********** |
| 5.50 | | 17.00 | |
| | 11.00 | | ********** |
| 6.00 | | 28.00 | |
| | 11.00 | | ********** |
| 6.50 | | 39.00 | |
| | 9.00 | | ********* |
| 7.00 | | 48.00 | |
| | 12.00 | | ********** |
| 7.50 | | 60.00 | |
| | 7.00 | | ******* |
| 8.00 | | 67.00 | |
| | 6.00 | | ****** |
| 8.50 | | 73.00 | |
| | 5.00 | | ***** |
| 9.00 | | 78.00 | |
| | 22.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.55 | 1.20 | .01 | -.76 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.08 5TH 4.78 16TH 5.45 25TH 5.86
75TH 8.70 84TH****** 95TH******

PCT. GRAVEL .00 SAND 1.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 66.00 (SEDIGRAPH) 33.00

GRAVEL+SAND 1.00 SILT/(SILT+CLAY) 66.67PCT.GRAV+SAND/SILT+CLAY .01

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 S-28 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.52 | | ** |
| 4.00 | | 1.52 | |
| | 0.00 | | |
| 4.50 | | 1.52 | |
| | 5.56 | | ****** |
| 5.00 | | 7.07 | |
| | 10.10 | | ********** |
| 5.50 | | 17.17 | |
| | 13.13 | | ********** |
| 6.00 | | 30.30 | |
| | 14.14 | | ********** |
| 6.50 | | 44.44 | |
| | 11.11 | | ********** |
| 7.00 | | 55.56 | |
| | 12.12 | | ********** |
| 7.50 | | 67.68 | |
| | 9.09 | | ********* |
| 8.00 | | 76.77 | |
| | 4.04 | | **** |
| 8.50 | | 80.81 | |
| | 4.04 | | **** |
| 9.00 | | 84.85 | |
| | 15.15 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.49 | 1.12 | .02 | -.52 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 6.75 5TH 4.81 16TH 5.44 25TH 5.80
75TH 7.90 84TH 8.90 95TH******

PCT. GRAVEL .00 SAND 1.52 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 75.25 (SEDIGRAPH) 23.23

GRAVEL+SAND 1.52 SILT/(SILT+CLAY) 76.41PCT.GRAV+SAND/SILT+CLAY .02

LABELS SHEPARD -SILT FOLK(GMS)-MUD (SCS)-SILT

LO8I S-34 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 15.63 | | ********** |
| 4.00 | | 15.63 | |
| | 7.29 | | ******* |
| 4.50 | | 22.92 | |
| | 9.38 | | ********* |
| 5.00 | | 32.29 | |
| | 8.33 | | ******** |
| 5.50 | | 40.63 | |
| | 6.25 | | ****** |
| 6.00 | | 46.88 | |
| | 8.33 | | ******** |
| 6.50 | | 55.21 | |
| | 9.38 | | ********* |
| 7.00 | | 64.58 | |
| | 8.33 | | ******** |
| 7.50 | | 72.92 | |
| | 6.25 | | ****** |
| 8.00 | | 79.17 | |
| | 4.17 | | **** |
| 8.50 | | 83.33 | |
| | 4.17 | | **** |
| 9.00 | | 87.50 | |
| | 12.50 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 6.19 5TH****** 16TH 4.03 25TH 4.61
75TH 7.67 84TH 8.58 95TH******

PCT. GRAVEL .00 SAND 15.63 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 63.54 (SEDIGRAPH) 20.83

GRAVEL+SAND 15.63 SILT/(SILT+CLAY) 75.31PCT.GRAV+SAND/SILT+CLAY .19

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

L081 S-36 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 3.03 | | *** |
| 4.00 | | 3.03 | |
| | .51 | | * |
| 4.50 | | 3.54 | |
| | 5.56 | | ****** |
| 5.00 | | 9.09 | |
| | 9.09 | | ********* |
| 5.50 | | 18.18 | |
| | 10.10 | | ********** |
| 6.00 | | 28.28 | |
| | 10.10 | | ********** |
| 6.50 | | 38.38 | |
| | 9.09 | | ********* |
| 7.00 | | 47.47 | |
| | 11.11 | | ********** |
| 7.50 | | 58.59 | |
| | 9.09 | | ********* |
| 8.00 | | 67.68 | |
| | 6.06 | | ****** |
| 8.50 | | 73.74 | |
| | 5.05 | | ***** |
| 9.00 | | 78.79 | |
| | 21.21 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.54 | 1.27 | -.07 | -.70 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.11 5TH 4.63 16TH 5.38 25TH 5.84
75TH 8.63 84TH****** 95TH******

PCT. GRAVEL .00 SAND 3.03 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 64.65 (SEDIGRAPH) 32.32

GRAVEL+SAND 3.03 SILT/(SILT+CLAY) 66.67PCT.GRAV+SAND/SILT+CLAY .03

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 S-38 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 37.25 | | ********** |
| 4.00 | | 37.25 | |
| | 11.76 | | ********** |
| 4.50 | | 49.02 | |
| | 7.84 | | ******** |
| 5.00 | | 56.86 | |
| | 2.94 | | *** |
| 5.50 | | 59.80 | |
| | 2.94 | | *** |
| 6.00 | | 62.75 | |
| | 3.92 | | **** |
| 6.50 | | 66.67 | |
| | 1.96 | | ** |
| 7.00 | | 68.63 | |
| | 1.96 | | ** |
| 7.50 | | 70.59 | |
| | 1.96 | | ** |
| 8.00 | | 72.55 | |
| | 1.96 | | ** |
| 8.50 | | 74.51 | |
| | 1.96 | | ** |
| 9.00 | | 76.47 | |
| | 23.53 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 4.56 5TH****** 16TH****** 25TH******
75TH 8.63 84TH****** 95TH******

PCT. GRAVEL .00 SAND 37.25 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 35.29 (SEDIGRAPH) 27.45

GRAVEL+SAND 37.26 SILT/(SILT+CLAY) 56.25PCT.GRAV+SAND/SILT+CLAY .59

LABELS SHEPARD -SAN SIL CLY FOLK(GMS)-SANDY MUD (SCS)-SANDY MUD

L081 S-40 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.59 | | ** |
| 4.00 | | 1.59 | |
| | 3.17 | | *** |
| 4.50 | | 4.76 | |
| | 9.52 | | ********** |
| 5.00 | | 14.29 | |
| | 7.41 | | ******* |
| 5.50 | | 21.69 | |
| | 8.47 | | ******** |
| 6.00 | | 30.16 | |
| | 9.52 | | ********** |
| 6.50 | | 39.68 | |
| | 9.52 | | ********** |
| 7.00 | | 49.21 | |
| | 7.41 | | ******* |
| 7.50 | | 56.61 | |
| | 7.41 | | ******* |
| 8.00 | | 64.02 | |
| | 5.29 | | ***** |
| 8.50 | | 69.31 | |
| | 6.35 | | ****** |
| 9.00 | | 75.66 | |
| | 24.34 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.43 | 1.35 | .03 | -.97 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.05 5TH 4.51 16TH 5.12 25TH 5.70
75TH 8.95 84TH****** 95TH******

PCT. GRAVEL .00 SAND 1.59 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 62.43 (SEDIGRAPH) 35.98

GRAVEL+SAND 1.59 SILT/(SILT+CLAY) 63.44PCT.GRAV+SAND/SILT+CLAY .02

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 S-64 150282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | | | |
| | 0.00 | | |
| 4.00 | | 0.00 | |
| | 0.00 | | |
| 4.50 | | 0.00 | |
| | 0.00 | | |
| 5.00 | | 0.00 | |
| | 2.44 | | ** |
| 5.50 | | 2.44 | |
| | 4.88 | | ***** |
| 6.00 | | 7.32 | |
| | 9.76 | | ********** |
| 6.50 | | 17.07 | |
| | 12.20 | | ********** |
| 7.00 | | 29.27 | |
| | 13.41 | | ********** |
| 7.50 | | 42.68 | |
| | 13.41 | | ********** |
| 8.00 | | 56.10 | |
| | 8.54 | | ********* |
| 8.50 | | 64.63 | |
| | 6.10 | | ****** |
| 9.00 | | 70.73 | |
| | 29.27 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS | |
|---|---|---|---|---|
| 7.20 | .91 | -.07 | -.72 | KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES FOR SIZE RANGE 4.0 TO 9.0 PHI |

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.77 5TH 5.76 16TH 6.45 25TH 6.83
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 0.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 56.10 (SEDIGRAPH) 43.90

GRAVEL+SAND .00 SILT/(SILT+CLAY) 56.10PCT.GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

L081 S-82 110282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 25.27 | | ********** |
| 4.00 | | 25.27 | |
| | 34.07 | | ********** |
| 4.50 | | 59.34 | |
| | 20.88 | | ********** |
| 5.00 | | 80.22 | |
| | 5.49 | | ***** |
| 5.50 | | 85.71 | |
| | 2.20 | | ** |
| 6.00 | | 87.91 | |
| | 1.10 | | * |
| 6.50 | | 89.01 | |
| | 1.10 | | * |
| 7.00 | | 90.11 | |
| | 1.10 | | * |
| 7.50 | | 91.21 | |
| | 2.20 | | ** |
| 8.00 | | 93.41 | |
| | 0.00 | | |
| 8.50 | | 93.41 | |
| | 1.10 | | * |
| 9.00 | | 94.51 | |
| | 5.49 | | ***** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 4.36 5TH****** 16TH****** 25TH******
75TH 4.88 84TH 5.34 95TH******

PCT. GRAVEL .00 SAND 25.27 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 68.13 (SEDIGRAPH) 6.59

GRAVEL+SAND 25.27 SILT/(SILT+CLAY) 91.18PCT.GRAV+SAND/SILT+CLAY .34

LABELS SHEPARD -SANDY SILT FOLK(GMS)-SANDY MUD (SCS)-SANDY SILT

L081 S-84 120282 SEDIGRAPH ANALYSIS

02/19/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 8.33 | | ******** |
| 4.00 | | 8.33 | |
| | 13.54 | | ********** |
| 4.50 | | 21.88 | |
| | 14.58 | | ********** |
| 5.00 | | 36.46 | |
| | 6.25 | | ****** |
| 5.50 | | 42.71 | |
| | 7.29 | | ******* |
| 6.00 | | 50.00 | |
| | 4.17 | | **** |
| 6.50 | | 54.17 | |
| | 5.21 | | ***** |
| 7.00 | | 59.37 | |
| | 6.25 | | ****** |
| 7.50 | | 65.62 | |
| | 5.21 | | ***** |
| 8.00 | | 70.83 | |
| | 4.17 | | **** |
| 8.50 | | 75.00 | |
| | 3.13 | | *** |
| 9.00 | | 78.12 | |
| | 21.88 | | ********** |
| ***** | | 100.00 | |

NO STATISTICS ARE COMPUTED BECAUSE THE UPPER SIZE LIMIT IS ASSUMED
AND THIS AFFECTS MORE THAN 5 PERCENT OF THE SAMPLE

PERCENTILES MEDIAN 6.00 5TH****** 16TH 4.28 25TH 4.61
75TH 8.50 84TH****** 95TH******

PCT. GRAVEL .00 SAND 8.33 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 62.50 (SEDIGRAPH) 29.17

GRAVEL+SAND 8.33 SILT/(SILT+CLAY) 68.18PCT.GRAV+SAND/SILT+CLAY .09

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-SILT

L081 CB 100282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 2.38 | | ** |
| 4.00 | | 2.38 | |
| | 3.57 | | **** |
| 4.50 | | 5.95 | |
| | 4.76 | | ***** |
| 5.00 | | 10.71 | |
| | 3.57 | | **** |
| 5.50 | | 14.29 | |
| | 5.95 | | ****** |
| 6.00 | | 20.24 | |
| | 9.52 | | ********** |
| 6.50 | | 29.76 | |
| | 10.71 | | ********** |
| 7.00 | | 40.48 | |
| | 13.10 | | ********** |
| 7.50 | | 53.57 | |
| | 7.14 | | ******* |
| 8.00 | | 60.71 | |
| | 4.76 | | ***** |
| 8.50 | | 65.48 | |
| | 8.33 | | ******** |
| 9.00 | | 73.81 | |
| | 26.19 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.69 | 1.34 | -.18 | -.59 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.36 5TH 4.37 16TH 5.64 25TH 6.25
75TH****** 84TH****** 95TH******

PCT. GRAVEL .00 SAND 2.38 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 58.33 (SEDIGRAPH) 39.29

GRAVEL+SAND 2.38 SILT/(SILT+CLAY) 59.76PCT.GRAV+SAND/SILT+CLAY .02

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD

23712

LO81 WB 120282 SEDIGRAPH ANALYSIS

02/16/82

| PHI | PCT. | CUMPCT. | |
|---|---|---|---|
| 3.50 | ASSUMED UPPER LIMIT | | |
| | 1.00 | | * |
| 4.00 | | 1.00 | |
| | 1.00 | | * |
| 4.50 | | 2.00 | |
| | 5.00 | | ***** |
| 5.00 | | 7.00 | |
| | 6.00 | | ****** |
| 5.50 | | 13.00 | |
| | 10.00 | | ********** |
| 6.00 | | 23.00 | |
| | 10.00 | | ********** |
| 6.50 | | 33.00 | |
| | 11.00 | | ********** |
| 7.00 | | 44.00 | |
| | 13.00 | | ********** |
| 7.50 | | 57.00 | |
| | 8.00 | | ******** |
| 8.00 | | 65.00 | |
| | 7.00 | | ******* |
| 8.50 | | 72.00 | |
| | 7.00 | | ******* |
| 9.00 | | 79.00 | |
| | 21.00 | | ********** |
| ***** | | 100.00 | |

| MEAN | ST.DEV. | SKEWNESS | KURTOSIS |
|---|---|---|---|
| 6.74 | 1.21 | -.08 | -.68 |

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 9.0 PHI

> 5 PERCENT OF THE FINES ARE NOT RESOLVED, OBTAIN FOLK STATS. GRAPHICALLY

PERCENTILES MEDIAN 7.23 5TH 4.80 16TH 5.65 25TH 6.10
75TH 8.71 84TH****** 95TH******

PCT. GRAVEL .00 SAND 1.00 SILT (PIPETTE) 0.00 CLAY (PIPETTE) 0.00
(SEDIGRAPH) 64.00 (SEDIGRAPH) 35.00

GRAVEL+SAND 1.00 SILT/(SILT+CLAY) 64.65PCT.GRAV+SAND/SILT+CLAY .01

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD (SCS)-MUD