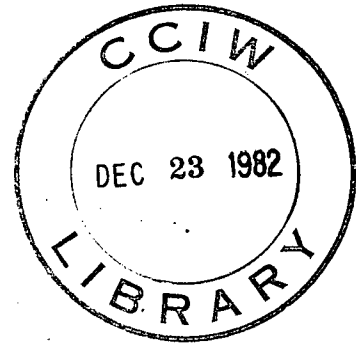


C-1

HYDRAULICS DIVISION
TECHNICAL NOTE



DATE: December 1982 REPORT NO: 82-29

TITLE: Particle Size Data Report - Buffalo - Niagara River

AUTHOR: G. A. Duncan

REASON FOR REPORT: This report responds to a request for particle size data from A. Mudroch, ECD and E. T. Wagner, IWD.

CORRESPONDENCE FILE NO: 5690 (Study No. 343)

1.0 INTRODUCTION

This report provides the results of particle size analysis on sediments from Buffalo - Niagara River for WQB/IWD and US/EPA.

Samples collected by the EPA and submitted to the laboratory by the Niagara River Toxics Committee were analysed for gravel, sand, silt and clay percentages (Duncan & LaHaie 1979). The unused portions of the samples were returned to A. Mudroch following the analysis.

2.0 PROCEDURES

- (1) The Sieve, Settling Tube, Pipette and Sedigraph Procedure, which provides gravel, sand, silt and clay percentages with 1/2 PHI resolution of the size classes, was used to analyse 62 samples.

Briefly, the procedure consists of:

1. Splitting the sample to 20 g.
2. Sieving the split at 1/2 PHI (1.41 mm).
3. Dispersing the sample in 50 ml of Calgon solution (50 g/l) and mixing it for 15 minutes.
4. Recovering a pipette aliquot of 25 ml for sedigraph analysis.
5. Automatic analysis by sedigraph.
6. Wet sieving the remaining suspension at 4.5 PHI (0.044 mm).
7. Resolving the sand residue with settling tube analysis.
8. Processing the results with SIZDIST: A Fortran IV computer program (Sandilands and Duncan, 1980).

- (2) The Sieve, Short Pipette and Sedigraph Analyses, which provide sand, silt, and clay percentages with 1/2 PHI resolution on the silt and clay classes, was used to analyse 1 sample.

Briefly, the procedure consists of:

1. Splitting the sample to 20 g.

2. Dispersing the sample in 50 ml of Calgon solution (50 g/l) and mixing it for 15 minutes.
3. Recovering pipette aliquots of 25 ml for (a) sedigraph analysis (b) clay percentage.
4. Automatic analysis by sedigraph.
5. Processing the results with SIZDIST: A Fortran IV computer program (Sandilands and Duncan, 1980).

3.0 RESULTS

(1) For the Sieve, Settling Tube, Pipette and Sedigraph Method, the output consists of:

1. A histogram of the frequency distribution.
2. The percentage and cumulative percentage of the material occurring within each 1/2 PHI unit.
3. Moment measure statistics (Krumbein and Pettijohn, 1938).
4. Percentiles.
5. Percent gravel, sand, silt and clay. Percentages of silt and clay are expressed as "(PIPETTE)" and "(SEDIGRAPH)" to show reproducibility of the two methods.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1968) Ternary Classifications.

(2) For the Sieve, Short Pipette and Sedigraph analysis, the output consists of:

1. A histogram of the frequency distribution.
2. The percentage and cumulative percentage of the material occurring within each 1/2 PHI unit.
3. Moment measure statistics (Krumbein & Pettijohn, 1938).
4. Percentiles.
5. Percent gravel, sand, silt and clay. Percentages of silt and clay are expressed as "(PIPETTE)" and "(SEDIGRAPH)" to show reproducibility of the two methods.
6. Ratios used to plot Folk's Ternary Classification.
7. Shepard (1954) and Folk (1968) Ternary Classification.

PHI CONVERSION

The results of samples analysed in the Sedimentology Lab are presented using the PHI scale (Krumbein, 1934). The conversion from this PHI equation, $\phi = -\log_2 \xi$ (where ξ is the diameter in millimeters) to the Wentworth scale is listed below.

PHI (ϕ)	Millimeters	Microns	Wentworth Size Class
-5.0	32		
-4.5	24		
-4.0	16		Pebble (-2 to -6 ϕ)
-3.5	12		
-3.0	8		
-2.5	6		
-2.0	4		
-1.5	2.83		Granule
-1.0	2.00		
-0.5	1.41		Very coarse sand
0.0	1.00		
0.5	0.71		Coarse sand
1.0	0.51	500	
1.5	0.35	350	Medium sand
2.0	0.25	250	
2.5	0.177	177	Fine sand
3.0	0.125	125	
3.5	0.088	88	Very fine sand
4.0	0.0625	62.5	
8.0	0.0039	3.9	Silt + Clay+

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

NS01S59 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 34.9058

12/09/82

PHI PCT. CUM PCT.

-3.00			*****
-2.50	9.91	9.91	*****
-2.00	7.22	17.13	*****
-1.50	5.70	22.83	*****
-1.00	4.98	27.82	*****
-.50	7.19	35.01	*****
0.00	0.00	35.01	
.50	.78	35.79	*
1.00	.39	36.18	
1.50	2.74	38.92	***
2.00	2.74	41.66	***
2.50	2.35	44.01	**
3.00	2.35	46.35	**
3.50	4.30	50.66	****
4.00	4.50	55.15	****
4.50	1.40	56.56	*
5.00	4.20	60.76	****
5.50	4.91	65.66	*****
6.00	3.50	69.17	*****
6.50	4.20	73.37	*****
7.00	3.50	76.88	*****
7.50	4.20	81.08	****
8.00	2.10	83.18	**
8.50	2.80	85.99	***
9.00	2.10	88.09	**
9.50	2.10	90.19	**
10.00	2.10	92.29	**
10.50	2.10	94.39	**
11.00	1.75	96.15	**
11.50	1.75	97.90	**
12.00	1.40	99.30	*
*****	.70	100.00	*

MEAN. ST. DEV. SKEWNESS KURTOSIS

3.15 4.40 .08 -1.23

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.5 TO 12.0 PHI

3.16 4.59 .00 .69

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

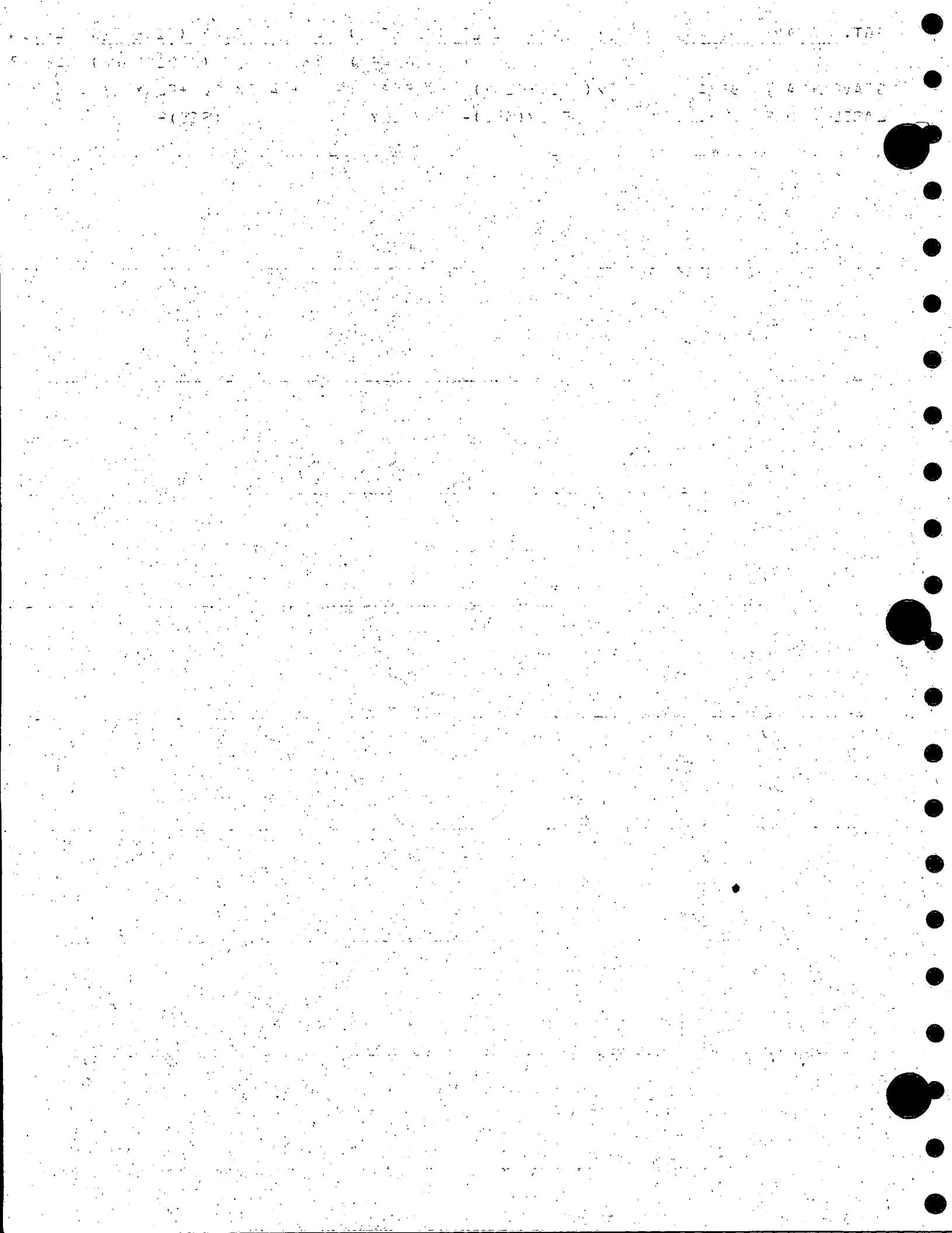
PERCENTILES	MEDIAN	3.42	5TH	-2.75	16TH	-2.08	25TH	-1.28
			75TH	6.73	84TH	8.15	95TH	10.67

PCT. GRAVEL 27.82 SAND 27.34 SILT (PIPETTE) 28.81 CLAY (PIPETTE) 16.04

(SEDIGRAPH) 28.03 (SEDIGRAPH) 16.82

GRAVEL+SAND 55.15 SILT/(SILT+CLAY) 62.50 PCT. GRAV+SAND/SILT+CLAY 1.23

LABELS SHEPARD -SILTY SAND FOLK(GMS)-GRAVELLY MUD (SCS)-



NS01S60 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 28.1112

12/09/82

PHI	PCT.	CUM PCT.
- .50		
0.00	0.00	0.00
.50	0.00	0.00
1.00	0.00	0.00
1.50	.07	.07
2.00	.28	.35
2.50	2.09	2.44
3.00	10.81	13.25
3.50	12.55	25.81
4.00	9.76	35.57
4.50	0.00	35.57
5.00	7.27	42.84
5.50	7.27	50.12
6.00	8.31	58.43
6.50	7.27	65.71
7.00	5.20	70.90
7.50	4.16	75.06
8.00	5.20	80.26
8.50	2.08	82.33
9.00	3.12	85.45
9.50	4.16	89.61
10.00	2.08	91.69
10.50	2.60	94.28
11.00	2.60	96.88
11.50	2.08	98.96
*****	1.04	100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

5.71 2.46 .27 -.72

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

5.79 2.63 .22 .82

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.49	2.62	3.11	3.47
		7.49	8.77	10.64

PCT. GRAVEL	SAND	SILT (PIPETTE)	CLAY (PIPETTE)
0.00	35.57	46.30	18.13
		(SEDIGRAPH) 44.69	(SEDIGRAPH) 19.74

GRAVEL+SAND 35.57 SILT/(SILT+CLAY) 69.35 PCT. GRAV+SAND/SILT+CLAY .55

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

NS01S61 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 30.3001

12/09/82

PHI	PCT. CUM PCT.
-0.50	0.00
0.00	0.00
.50	0.00
1.00	0.00
1.50	.04
2.00	.38
2.50	.84
3.00	1.26
3.50	6.71
4.00	7.97
4.50	10.69
5.00	18.66
5.50	9.02
6.00	27.68
6.50	0.00
7.00	27.68
7.50	3.10
8.00	30.78
8.50	7.23
9.00	38.01
9.50	8.27
10.00	46.27
10.50	8.27
11.00	54.54
11.50	6.20
12.00	60.74
	6.20
	66.94
	5.17
	72.10
	4.13
	76.24
	4.13
	80.37
	3.10
	83.47
	3.10
	86.57
	2.07
	88.63
	3.10
	91.73
	3.10
	94.83
	2.07
	96.90
	3.10
*****	100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

6.31 2.56 .17 -.82

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

6.40 2.88 .15 .80

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 6.23 5TH 2.78 16TH 3.38 25TH 3.85

75TH 8.35 84TH 9.59 95TH 11.54

PCT. GRAVEL	0.00	SAND	27.68	SILT (PIPETTE)	53.76	CLAY (PIPETTE)	18.57
				(SEDIGRAPH)	44.43	(SEDIGRAPH)	27.90

GRAVEL+SAND 27.68 SILT/(SILT+CLAY) 61.43 PCT. GRAV+SAND/SILT+CLAY .38

LABELS SHEPARD -SAND SIL CLY FOLK(GMS)-SANDY MUD

(SCS)-SANDY MUD

NS01S62 121082

SIEVE,SETT.TUBE,PIPET,SEDIGRAPH SAMPLE WT.= 27.6339

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00	
0.00	.01	.01	
.50	.30	.31	
1.00	.31	.61	
1.50	.61	1.22	*
2.00	.31	1.53	
2.50	.61	2.14	*
3.00	3.97	6.11	****
3.50	4.89	11.00	*****
4.00	0.00	11.00	
4.50	1.07	12.07	*
5.00	4.29	16.36	****
5.50	11.80	28.16	*****
6.00	10.72	38.88	*****
6.50	9.65	48.53	*****
7.00	8.58	57.11	*****
7.50	7.51	64.61	*****
8.00	4.29	68.90	****
8.50	5.36	74.27	****
9.00	4.29	78.55	****
9.50	2.14	80.70	**
10.00	3.22	83.92	***
10.50	3.22	87.13	***
11.00	2.14	89.28	**
11.50	10.72	100.00	*****
*****	100.00		

MEAN ST.DEV. SKÉWNESS KURTOSIS

6.92 2.09 -.04 -.08

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

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

PERCENTILES MEDIAN 7.09 5TH 3.36 16TH 5.46 25TH 5.87

75TH 9.09 84TH 10.51 95TH*****

PCT. GRAVEL 0.00 SAND 11.00 SILT (PIPETTE) 64.43 CLAY (PIPETTE) 24.57

(SEDIGRAPH) 53.61 (SEDIGRAPH) 35.39

GRAVEL+SAND 11.00 SILT/(SILT+CLAY) 60.24 PCT.GRAV+SAND/SILT+CLAY .12

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

NS01S63 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 27.0601

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00	
0.00	0.00	0.00	
0.50	.28	0.00	
1.00	.14	.28	
1.50	.14	.41	
2.00	.55	.55	*
2.50	1.11	1.11	*
3.00	3.87	2.21	****
3.50	4.14	6.08	****
4.00	0.00	10.22	
4.50	4.63	10.22	*****
5.00	8.33	14.85	*****
5.50	12.96	23.18	*****
6.00	12.96	36.14	*****
6.50	9.26	49.09	*****
7.00	8.33	58.35	*****
7.50	7.40	66.68	*****
8.00	3.70	74.08	****
8.50	3.70	77.79	****
9.00	2.78	81.49	***
9.50	1.85	84.27	**
10.00	2.78	86.12	***
10.50	1.85	88.89	**
11.00	1.85	90.74	**
11.50	7.40	92.60	*****
*****	100.00		

MEAN ST. DEV. SKEWNESS KURTOSIS

6.59 1.94 .10 .14

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

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

PERCENTILES	MEDIAN	6.55	5TH	3.36	16TH	5.07	25TH	5.57
			75TH	8.12	84TH	9.45	95TH	*****

PCT. GRAVEL	0.00	SAND	10.22	SILT (PIPETTE)	65.03	CLAY (PIPETTE)	24.75
				(SEDIGRAPH)	63.86	(SEDIGRAPH)	25.92

GRAVEL+SAND 10.22 SILT/(SILT+CLAY) 71.13 PCT. GRAV+SAND/SILT+CLAY .11

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

(SCS)-SANDY SILT

NS01S64 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 31.2464

12/09/82

PHI	PCT. CUM PCT.	
-3.50		*****
-3.00	4.54	
-2.50	.26	4.80
-2.00	.83	5.63
-1.50	.58	6.21
-1.00	.77	6.98
-.50	0.00	6.98
0.00	.05	7.03
.50	.99	8.02
1.00	1.04	9.06
1.50	2.61	11.67
2.00	4.17	15.85
2.50	6.26	22.11
3.00	7.83	29.94
3.50	7.83	37.76
4.00	3.13	40.90
4.50	.60	41.50
5.00	5.43	46.93
5.50	5.43	52.35
6.00	6.63	58.99
6.50	6.03	65.02
7.00	6.03	71.05
7.50	4.82	75.88
8.00	4.82	80.70
8.50	3.02	83.72
9.00	3.02	86.73
9.50	2.41	89.14
10.00	1.21	90.35
10.50	2.41	92.76
11.00	1.51	94.27
*****	5.73	100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

4.64 3.27 -.24 .01

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 11.0 PHI

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

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.28	-2.38	2.01	2.68
		75TH	84TH	95TH
		7.41	8.55	*****

PCT. GRAVEL 6.98 SAND 33.92 SILT (PIPETTE) 39.46 CLAY (PIPETTE) 19.64

(SEDIGRAPH) 39.81

(SEDIGRAPH) 19.30

GRAVEL+SAND 40.90 SILT/(SILT+CLAY) 67.35PCT.GRAV+SAND/SILT+CLAY .69

LABELS SHEPARD -SILTY SAND FOLK(GMS)-GRAVELLY MUD

(SCS)-

NS01S66 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH

SAMPLE WT. = 28.3015

PHI PCT. CUMFCT.

12/09/82

-0.50	0.00	0.00	
0.00	0.00	0.00	
.50	0.00	0.00	
1.00	0.00	0.00	
1.50	.06	0.00	
2.00	.06	.06	
2.50	.88	.13	*
3.00	3.89	1.00	****
3.50	5.90	4.89	*****
4.00	1.84	10.79	**
4.50	6.44	12.63	*****
5.00	11.04	19.07	*****
5.50	12.88	30.10	*****
6.00	11.96	42.98	*****
6.50	6.44	54.93	*****
7.00	7.82	61.37	*****
7.50	5.06	69.19	*****
8.00	3.68	74.25	****
8.50	3.68	77.93	****
9.00	3.68	81.61	****
9.50	1.84	85.28	**
10.00	2.76	87.12	***
10.50	2.76	89.88	***
11.00	1.84	92.64	**
11.50	5.52	94.48	*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

6.51 1.99 .24 -.27

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

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

PERCENTILES	MEDIAN	6.29	5TH	3.51	16TH	4.76	25TH	5.27
			75TH	8.10	84TH	9.33	95TH	*****

PCT. GRAVEL	0.00	SAND	10.79	SILT (PIPETTE)	68.58	CLAY (PIPETTE)	20.63
				(SEDIGRAPH)	63.46	(SEDIGRAPH)	25.75

GRAVEL+SAND 10.79 SILT/(SILT+CLAY) 71.13 PCT.GRAV+SAND/SILT+CLAY .12

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

(SCS) -SANDY SILT

NS01S56 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 21.6970

12709782

PHI PCT. CUMPGT.

-1.50			
-1.00	.14	.14	
-.50	.60	.74	*
0.00	.70	1.44	*
.50	.35	1.79	
1.00	.18	1.97	
1.50	.18	2.14	
2.00	1.75	3.90	**
2.50	2.46	6.35	**
3.00	4.21	10.56	****
3.50	4.21	14.77	****
4.00	4.56	19.33	*****
4.50	1.20	20.54	*
5.00	6.02	26.56	*****
5.50	8.43	34.99	*****
6.00	9.63	44.62	*****
6.50	10.84	55.45	*****
7.00	6.02	61.47	*****
7.50	7.83	69.30	*****
8.00	5.42	74.72	*****
8.50	3.61	78.33	****
9.00	4.82	83.14	*****
9.50	3.61	86.76	****
10.00	3.61	90.37	****
10.50	3.61	93.98	****
11.00	2.41	96.39	**
11.50	2.41	98.80	**
12.00	.60	99.40	*
*****	.60	100.00	*

MEAN ST. DEV. SKEWNESS KURTOSIS

6.32 2.53 -.07 -.19

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.0 TO 12.0 PHI

6.33 2.66 .05 1.10

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	6.25	5TH	2.22	16TH	3.63	25TH	4.87
			75TH	8.04	84TH	9.12	95TH	10.71

PCT. GRAVEL	.14	SAND	19.20	SILT (PIPETTE)	55.69	CLAY (PIPETTE)	24.98
				(SEDIGRAPH)	55.38	(SEDIGRAPH)	25.28

GRAVEL+SAND 19.33 SILT/((SILT+CLAY) 68.66 PCT. GRAV+SAND/SILT+CLAY .24

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

(SCS)-SANDY SILT

NS01S57 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 36.7162

PHI PCT. CUM PCT.

12/09/82

-0.50			*
0.00	.75		
	4.51	.75	*****
.50		5.26	
	11.27		*****
1.00		16.54	
	15.78		*****
1.50		32.32	
	21.05		*****
2.00		53.37	
	10.52		*****
2.50		63.89	
	4.51		*****
3.00		68.40	
	4.51		*****
3.50		72.91	
	.38		
4.00		73.29	*
	.67		
4.50		73.95	*
	1.34		
5.00		75.29	
	2.67		***
5.50		77.96	
	2.67		***
6.00		80.63	
	2.67		***
6.50		83.30	
	2.00		**
7.00		85.31	
	2.67		***
7.50		87.98	
	2.67		***
8.00		90.65	
	1.34		*
8.50		91.99	
	2.67		***
9.00		94.66	
	1.34		*
9.50		95.99	
	1.34		*
10.00		97.33	
	1.34		*
10.50		98.66	
	1.00		*
11.00		99.67	
	.33		
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

3.12 2.76 .61 .25

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.0 PHI

3.19 2.74 .67 .98

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.92	5TH	.47	16TH	.98	25TH	1.27
			75TH	4.89	84TH	6.67	95TH	9.13

PCT. GRAVEL	0.00	SAND	73.29	SILT (PIPETTE)	18.41	CLAY (PIPETTE)	8.31
				(SEDIGRAPH)	17.36	(SEDIGRAPH)	9.35

GRAVEL+SAND 73.29 SILT/(SILT+CLAY) 65.00 PCT. GRAV+SAND/SILT+CLAY 2.74

LABELS SHEPARD - SILTY SAND FOLK(GMS) - MUDDY SAND (SCS) - MUDDY SAND

NS01S58 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 28.7236

12/09/82

PHI PCT. CUM PCT.

- .50			
0.00	0.00	0.00	
	0.00		
.50	.03	0.00	
1.00	.18	.03	
1.50	.79	.21	*
2.00	1.47	1.00	*
2.50	1.57	2.46	**
3.00	1.10	4.03	*
3.50	53.03	5.14	*****
4.00	.72	58.17	*
4.50	2.89	58.89	***
5.00	4.33	61.77	****
5.50	2.89	66.10	***
6.00	4.33	68.99	****
6.50	2.89	73.31	***
7.00	3.61	76.20	****
7.50	2.89	79.80	***
8.00	2.16	82.69	**
8.50	2.89	84.85	***
9.00	1.44	87.74	*
9.50	3.61	89.18	****
10.00	.72	92.79	*
10.50	3.61	93.51	****
11.00	2.89	97.11	***
11.50	0.00	100.00	
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

5.33 2.42 .55 -.02

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

5.28 2.28 .87 .96

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	3.92	5TH	3.44	16TH	3.60	25TH	3.69
			75TH	6.79	84TH	8.30	95TH	10.71

PCT. GRAVEL	0.00	SAND	58.17	SILT (PIPETTE)	25.16	CLAY (PIPETTE)	16.67
				(SEDIGRAPH)	24.52	(SEDIGRAPH)	17.31

GRAVEL+SAND 58.17 SILT/(SILT+CLAY) 58.62 PCT. GRAV+SAND/SILT+CLAY 1.39

LABELS SHEPARD -SILTY SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS01S65 121082

SIEVE,SETT.TUBE,PIPET,SEDIGRAPH SAMPLE WT.= 26.4165

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00	
0.00	.02	.02	
.50	.09	.11	
1.00	.06	.17	
1.50	.50	.67	*
2.00	.67	1.33	*
2.50	2.22	3.56	**
3.00	6.11	9.67	*****
3.50	10.34	20.01	*****
4.00	1.68	21.70	**
4.50	9.26	30.96	*****
5.00	11.79	42.75	*****
5.50	9.26	52.01	*****
6.00	10.10	62.11	*****
6.50	5.89	68.00	*****
7.00	7.58	75.58	*****
7.50	4.21	79.79	***
8.00	2.53	82.32	***
8.50	3.37	85.69	***
9.00	3.37	89.05	**
9.50	1.68	90.74	**
10.00	2.53	93.26	**
10.50	1.68	94.95	**
11.00	1.68	96.63	***
11.50	3.37	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

6.05 2.10 .25 -.25

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

6.15 2.43 .23 1.16

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.89	3.12	3.81	4.68
		7.46	8.75	11.02

PCT. GRAVEL	0.00	SAND	20.01	SILT (PIPETTE)	59.21	CLAY (PIPETTE)	20.78
				(SEDIGRAPH)	59.78	(SEDIGRAPH)	20.21

GRAVEL+SAND 20.01 SILT/(SILT+CLAY) 74.74 PCT. GRAV+SAND/SILT+CLAY .25

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

NS01S67 121082

SIEVE,SETT.TUBE,PIPET,SEDIGRAPH SAMPLE WT.= 32.8268

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00
0.00	0.00	0.00
.50	0.00	0.00
1.00	.03	.03
1.50	.30	.33
2.00	.33	.67
2.50	3.01	3.68
3.00	7.03	10.72
3.50	10.55	21.27
4.00	3.15	24.41
4.50	15.75	40.16
5.00	15.75	55.91
5.50	10.24	66.14
6.00	7.09	73.23
6.50	5.51	78.74
7.00	3.15	81.89
7.50	3.94	85.83
8.00	1.57	87.40
8.50	1.57	88.98
9.00	2.36	91.34
9.50	1.57	92.91
10.00	1.57	94.49
10.50	1.57	96.06
11.00	1.57	97.64
11.50	2.36	100.00

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MEAN ST.DEV. SKEWNESS KURTOSIS

5.65 1.96 .47 .62

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

5.61 2.15 .32 1.45

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.31	3.09	3.75	4.52
		6.66	7.77	10.66

PCT. GRAVEL	0.00	SAND	21.27	SILT (PIPETTE)	63.20	CLAY (PIPETTE)	15.54
				(SEDIGRAPH)	64.56	(SEDIGRAPH)	14.17

GRAVEL+SAND 21.27 SILT/(SILT+CLAY) 82.00 PCT.GRAV+SAND/SILT+CLAY .27

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

NS01S68 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 29.4713

12/09/82

PHI PCT. CUMECT.

-0.50		
0.00	.16	.16
.50	.32	.47
1.00	.63	1.10
1.50	.39	1.50
2.00	.39	1.89
2.50	.32	2.21
3.00	1.26	3.47
3.50	3.95	7.42
4.00	6.47	13.89
4.50	1.76	15.65
5.00	7.03	22.68
5.50	9.67	32.34
6.00	9.67	42.01
6.50	9.67	51.67
7.00	8.79	60.46
7.50	8.79	69.25
8.00	5.27	74.52
8.50	4.39	78.91
9.00	3.51	82.43
9.50	3.51	85.94
10.00	2.64	88.58
10.50	2.64	91.21
11.00	1.76	92.97
11.50	2.64	95.61
*****	4.39	100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

6.43 2.18 .05 -.02

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

6.72 2.42 .21 1.14

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	6.41	5TH	3.19	16TH	4.53	25TH	5.12
			75TH	8.05	84TH	9.22	95TH	11.38

PCT. GRAVEL	0.00	SAND	13.89	SILT (PIPETTE)	62.60	CLAY (PIPETTE)	23.51
				(SEDIGRAPH)	60.63	(SEDIGRAPH)	25.48

GRAVEL+SAND 13.89 SILT/(SILT+CLAY) 70.41 PCT. GRAV+SAND/SILT+CLAY .16

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

NS01S69 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 30.9129

12/09/82

PHI PCT. CUM PCT.

-2.50	.65	*
-2.00	0.00	.65
-1.50	.16	.65
-1.00	.03	.61
-.50	.08	.84
0.00	.08	.92
.50	.15	.99
1.00	.31	1.15
1.50	1.22	1.45
2.00	.46	2.67
2.50	.92	3.13
3.00	2.90	4.04
3.50	4.27	6.94
4.00	.94	11.22
4.50	6.61	12.16
5.00	11.33	18.77
5.50	11.33	30.11
6.00	11.33	41.44
6.50	7.56	52.77
7.00	8.50	60.33
7.50	6.61	68.83
8.00	3.78	75.44
8.50	3.78	79.22
9.00	2.83	83.00
9.50	2.83	85.83
10.00	2.83	88.67
10.50	1.89	91.50
11.00	2.83	93.39
11.50	1.89	96.22
12.00	1.89	98.11
*****	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

6.59 2.32 -.06 1.02

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.0 TO 12.0 PHI

6.78 2.33 .24 1.24

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 6.38 5TH 3.16 16TH 4.79 25TH 5.27

75TH 7.97 84TH 9.13 95TH 11.28

PCT. GRAVEL .81 SAND 10.41 SILT (PIPETTE) 63.82 CLAY (PIPETTE) 24.96

(SEDIGRAPH) 64.23

(SEDIGRAPH) 24.56

GRAVEL+SAND 11.22 SILT/(SILT+CLAY) 72.34PCT.GRAV+SAND/SILT+CLAY .13

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

NS01S70 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 33.7983

12/09/82

PHI PCT. CUM PCT.

-0.50			
0.00	0.00	0.00	
	0.00		
.50	.02	0.00	
1.00	.09	.02	
1.50	.33	.11	
2.00	.88	.44	*
2.50	2.65	1.32	***
3.00	7.83	3.97	*****
3.50	7.28	11.81	*****
4.00	0.00	19.09	
4.50	8.17	19.09	*****
5.00	11.44	27.26	*****
5.50	9.81	38.71	*****
6.00	8.17	48.51	*****
6.50	5.72	56.68	*****
7.00	7.36	62.41	*****
7.50	5.72	69.76	*****
8.00	3.27	75.48	***
8.50	4.09	78.75	****
9.00	2.45	82.84	**
9.50	2.45	85.29	**
10.00	2.45	87.74	**
10.50	2.45	90.19	**
11.00	1.63	92.64	**
11.50	5.72	94.28	*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

6.20 2.18 .18 -.47

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

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

PERCENTILES	MEDIAN	6.09	5TH	3.07	16TH	3.79	25TH	4.86
			75TH	7.96	84TH	9.24	95TH	*****

PCT. GRAVEL	0.00	SAND	19.09	SILT (PIPETTE)	57.85	CLAY (PIPETTE)	23.06
				(SEDIGRAPH)	56.39	(SEDIGRAPH)	24.52

GRAVEL+SAND 19.09 SILT/(SILT+CLAY) 69.70 PCT. GRAV+SAND/SILT+CLAY .24

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

(SCS)-SANDY SILT

NS01S71 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 28.7492

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00	
0.00	0.00	0.00	
.50	0.00	0.00	
1.00	.00	0.00	
1.50	.08	.00	
2.00	.24	.68	
2.50	.16	.32	
3.00	1.11	.48	*
3.50	2.62	1.59	***
4.00	.48	4.21	
4.50	3.35	4.68	***
5.00	8.62	8.04	*****
5.50	9.58	16.66	*****
6.00	10.54	26.24	*****
6.50	10.54	36.78	*****
7.00	9.58	47.31	*****
7.50	7.66	56.89	*****
8.00	6.71	64.56	*****
8.50	4.79	71.26	*****
9.00	2.87	76.05	***
9.50	2.87	78.93	***
10.00	2.87	81.80	***
10.50	2.39	84.67	**
11.00	2.39	87.07	**
11.50	2.87	89.46	***
12.00	7.66	92.34	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

7.22 1.96 .22 -.13

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.14	5TH	4.55	16TH	5.46	25TH	5.94
			75TH	8.89	84TH	10.38	95TH	*****

PCT. GRAVEL	0.00	SAND	4.21	SILT (PIPETTE)	63.65	CLAY (PIPETTE)	32.14
				(SEDIGRAPH)	60.35	(SEDIGRAPH)	35.44

GRAVEL+SAND 4.21 SILT/(SILT+CLAY) 63.00 PCT. GRAV+SAND/SILT+CLAY .04

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

NS01S72 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH

SAMPLE WT. = 22.7865

PHI PCT. CUM PCT.

12/09/82

-0.50			
0.00	0.00	0.00	
.50	.52	.52	*
1.00	2.60	3.12	***
1.50	2.86	5.98	***
2.00	3.64	9.63	****
2.50	3.12	12.75	***
3.00	2.34	15.09	**
3.50	2.60	17.69	***
4.00	1.82	19.51	**
4.50	0.00	19.51	
5.00	1.63	21.14	**
5.50	3.25	24.39	***
6.00	4.06	28.46	****
6.50	4.06	32.52	****
7.00	4.06	36.59	****
7.50	6.50	43.09	*****
8.00	5.69	48.78	*****
8.50	4.88	53.66	*****
9.00	7.32	60.98	*****
9.50	6.50	67.48	*****
10.00	5.69	73.17	*****
10.50	6.50	79.68	*****
11.00	4.06	83.74	****
11.50	4.06	87.81	****
12.00	5.69	93.56	*****
*****	6.50	100.00	*****

MEAN ST. DEV. SKEWNESS KURTOSIS

7.23 3.18 -.28 -.75

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.12	5TH	1.33	16TH	3.17	25TH	5.57
			75TH	10.14	84TH	11.03	95TH	*****

PCT. GRAVEL	0.00	SAND	19.51	SILT (PIPETTE)	47.26	CLAY (PIPETTE)	33.22
				(SEDIGRAPH)	29.27	(SEDIGRAPH)	51.22

GRAVEL+SAND 19.51 SILT/(SILT+CLAY) 36.36 PCT. GRAV+SAND/SILT+CLAY .24

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-SANDY MUD (SCS)-SANDY MUD

NS01S73 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 15.1076

12/09/82

PHI	PCT.	CUM PCT.
-0.50	0.00	0.00
0.00	0.00	0.00
.50	.01	0.00
1.00	.09	.01
1.50	.15	.10
2.00	.55	.25
2.50	.89	.79
3.00	1.39	1.69
3.50	2.58	3.07
4.00	0.00	5.65
4.50	2.39	5.65
5.00	4.78	8.04
5.50	4.78	12.82
6.00	5.97	17.59
6.50	4.78	23.56
7.00	7.17	28.34
7.50	5.97	35.51
8.00	7.17	41.48
8.50	7.17	48.65
9.00	5.97	55.81
9.50	5.97	61.78
10.00	4.78	67.75
10.50	4.78	72.53
11.00	3.58	77.31
11.50	7.17	80.89
12.00	11.94	88.66
*****		100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

8.06 2.33 -.14 -.55 KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.59	5TH	3.87	16TH	5.83	25TH	6.65
			75TH	10.76	84TH	11.72	95TH	*****

PCT.	GRAVEL	0.00	SAND	5.65	SILT (PIPETTE)	46.89	CLAY (PIPETTE)	47.46
					(SEDIGRAPH)	35.83	(SEDIGRAPH)	58.52

GRAVEL+SAND 5.65 SILT/(SILT+CLAY) 37.97 PCT. GRAV+SAND/SILT+CLAY .06

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-MUD

NS01S74 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 17.8111

12/09/82

PHI	PCT.	CUM PCT.	
-0.50	0.00	0.00	
0.00	.37	.37	
.50	.12	.37	
1.00	.61	.49	
1.50	1.10	1.10	*
2.00	1.47	2.21	*
2.50	2.45	3.68	**
3.00	2.94	6.13	***
3.50	4.17	9.08	****
4.00	0.00	13.25	
4.50	.93	13.25	*
5.00	5.60	14.18	*****
5.50	5.60	19.78	*****
6.00	5.60	25.37	*****
6.50	6.53	30.97	*****
7.00	8.40	37.50	*****
7.50	5.60	45.89	*****
8.00	5.60	51.49	*****
8.50	6.53	57.09	*****
9.00	4.66	63.62	*****
9.50	4.66	68.28	*****
10.00	3.73	72.95	*****
10.50	3.73	76.68	*****
11.00	6.53	80.41	*****
11.50	13.06	86.94	*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

7.26 2.55 -.19 -.48

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

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

PERCENTILES MEDIAN 7.87 5TH 2.77 16TH 5.16 25TH 5.97

75TH 10.28 84TH 11.27 95TH*****

PCT. GRAVEL 0.00 SAND 13.25 SILT (PIPETTE) 49.67 CLAY (PIPETTE) 37.09

(SEDIGRAPH) 38.25 (SEDIGRAPH) 48.51

GRAVEL+SAND 13.25 SILT/(SILT+CLAY) 44.09 PCT. GRAV+SAND/SILT+CLAY .15

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-SANDY MUD

(SCS)-SANDY MUD

NS01S75 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 38.2213

12/09/82

PHI PCT. CUM PCT.

-4.00			*****
-3.50	8.97	8.97	*****
-3.00	7.06	16.04	*****
-2.50	8.29	24.33	*****
-2.00	7.80	32.13	*****
-1.50	3.01	35.14	***
-1.00	3.03	38.17	***
-.50	.76	38.93	*
0.00	.46	39.39	
.50	5.09	44.48	*****
1.00	7.40	51.89	*****
1.50	7.40	59.29	*****
2.00	6.94	66.23	*****
2.50	2.78	69.01	***
3.00	2.31	71.32	**
3.50	1.85	73.17	**
4.00	2.08	75.25	**
4.50	0.00	75.25	*
5.00	.94	76.19	*
5.50	1.88	78.07	***
6.00	2.51	80.58	***
6.50	2.51	83.09	***
7.00	2.19	85.28	***
7.50	2.82	88.10	***
8.00	1.88	89.98	**
8.50	1.25	91.23	*
9.00	1.57	92.80	**
9.50	.94	93.74	*
10.00	.63	94.36	*
10.50	.63	94.99	*
11.00	.63	95.61	*
11.50	.31	95.93	
12.00	.31	96.24	
*****	3.76	100.00	****

MEAN ST. DEV. SKEWNESS KURTOSIS

1.05 3.96 .33 -.53

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.5 TO 12.0 PHI

1.53 4.58 .28 .91

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	.87	5TH	-3.72	16TH	-3.00	25TH	-2.46
			75TH	3.94	84TH	6.71	95TH	10.51
PCT.	GRAVEL	38.17	SAND	37.08	SILT (PIPETTE)	15.38	CLAY (PIPETTE)	9.36
					(SEDIGRAPH)	14.72	(SEDIGRAPH)	10.02
	GRAVEL+SAND	75.25	SILT/(SILT+CLAY)	59.49	PCT.GRAV+SAND/SILT+CLAY			3.04
	LABELS SHEPARD -SAND		FOLK(GMS)-MUDDY SANDY GRAVEL		(SCS)-			

NS01S76 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 22.2039

12/09/82

PHI	PCT. CUMPCT.	
-0.50	.01	
0.00	.04	.01
.50	.05	.05
1.00	.05	.10
1.50	.15	.15
2.00	.58	.29
2.50	.88	.88
3.00	1.75	1.75
3.50	4.58	3.51
4.00	.93	8.09
4.50	3.71	9.02
5.00	6.50	12.73
5.50	8.36	19.23
6.00	7.43	27.58
6.50	6.50	35.01
7.00	7.43	41.51
7.50	7.43	48.94
8.00	4.64	56.37
8.50	6.50	61.01
9.00	4.64	67.51
9.50	3.71	72.15
10.00	3.71	75.86
10.50	2.79	79.58
11.00	3.71	82.36
11.50	2.32	86.07
12.00	11.61	88.39
*****	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

7.28 2.25 .02 -.59

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.57	5TH	3.66	16TH	5.25	25TH	5.85
			75TH	9.88	84TH	11.22	95TH	*****

PCT. GRAVEL	0.00	SAND	8.09	SILT (PIPETTE)	53.41	CLAY (PIPETTE)	38.50
				(SEDIGRAPH)	48.28	(SEDIGRAPH)	43.63

GRAVEL+SAND 8.09 SILT/(SILT+CLAY) 52.53 PCT. GRAV+SAND/SILT+CLAY .09

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

NS01S77 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 23.2116

12/09/82

PHI	PCT. CUM PCT.	
-0.50	0.00	
0.00	0.07	
0.50	0.45	
1.00	1.56	**
1.50	4.15	****
2.00	6.92	*****
2.50	13.15	*****
3.00	17.99	****
3.50	22.14	****
4.00	25.95	
4.50	25.95	***
5.00	28.94	***
5.50	31.93	*****
6.00	37.92	*****
6.50	43.90	*****
7.00	50.63	*****
7.50	58.11	*****
8.00	64.85	****
8.50	69.33	****
9.00	73.82	****
9.50	77.56	**
10.00	79.80	***
10.50	82.80	**
11.00	85.04	***
11.50	88.03	**
12.00	90.28	*****
*****	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

6.28 2.88 -.02 -.95

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	6.95	5TH	1.85	16TH	2.79	25TH	3.88
			75TH	9.16	84TH	10.77	95TH	*****

PCT. GRAVEL	0.00	SAND	25.95	SILT (PIPETTE)	34.35	CLAY (PIPETTE)	39.70
				(SEDIGRAPH)	38.89	(SEDIGRAPH)	35.15

GRAVEL+SAND 25.95 SILT/(SILT+CLAY) 52.53 PCT. GRAV+SAND/SILT+CLAY .35

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

NS01S78 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 24.9893

PHI PCT. CUM PCT.

12/09/82

-0.50			
0.00	0.00	0.00	
	.00		
.50		.00	
	.10		
1.00		.11	
	.11		
1.50		.21	
	.63		*
2.00		.85	
	1.06		*
2.50		1.90	
	1.69		**
3.00		3.59	
	2.75		***
3.50		6.34	
	3.06		***
4.00		9.40	
	0.00		
4.50		9.40	
	3.62		****
5.00		13.03	
	5.44		*****
5.50		18.46	
	7.25		*****
6.00		25.71	
	8.15		*****
6.50		33.86	
	7.25		*****
7.00		41.11	
	9.97		*****
7.50		51.08	
	7.25		*****
8.00		58.32	
	5.44		*****
8.50		63.76	
	4.53		*****
9.00		68.29	
	3.62		****
9.50		71.91	
	3.17		***
10.00		75.09	
	3.17		***
10.50		78.26	
	1.81		**
11.00		80.07	
	2.72		***
11.50		82.79	
	1.81		**
12.00		84.60	
	15.40		*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

7.06 2.23 -.02 -.24

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.45	5TH	3.26	16TH	5.27	25TH	5.95
			75TH	9.99	84TH	11.83	95TH	*****

PCT. GRAVEL	0.00	SAND	9.40	SILT (PIPETTE)	54.22	CLAY (PIPETTE)	36.38
				(SEDIGRAPH)	48.92	(SEDIGRAPH)	41.68

GRAVEL+SAND 9.40 SILT/(SILT+CLAY) 54.00 PCT. GRAV+SAND/SILT+CLAY .10

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD

(SCS)-MUD

NS01S80 121082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 36.3889

12/09/82

PHI	PCT.	CUM PCT.	
-0.50	0.00	0.00	
0.00	.66	.66	*
.50	1.64	.66	**
1.00	.66	2.30	*
1.50	.99	2.96	*
2.00	2.30	3.94	**
2.50	9.85	6.24	*****
3.00	10.84	16.09	*****
3.50	4.27	26.92	****
4.00	0.00	31.19	
4.50	3.44	31.19	***
5.00	4.82	34.63	*****
5.50	5.50	39.45	*****
6.00	6.88	44.95	*****
6.50	5.50	51.84	*****
7.00	8.26	57.34	*****
7.50	5.50	65.60	*****
8.00	4.13	71.10	****
8.50	4.13	75.23	****
9.00	3.44	79.36	***
9.50	2.75	82.80	***
10.00	2.06	85.55	**
10.50	2.06	87.61	**
11.00	2.06	89.68	**
11.50	1.38	91.74	*
12.00	6.88	93.12	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

5.96 2.73 .06 -.86

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	6.37	5TH	2.23	16TH	3.00	25TH	3.41
			75TH	8.47	84TH	9.72	95TH	*****

PCT. GRAVEL	0.00	SAND	31.19	SILT (PIPETTE)	45.05	CLAY (PIPETTE)	23.75
				(SEDIGRAPH)	39.91	(SEDIGRAPH)	28.90

GRAVEL+SAND 31.19 SILT/(SILT+CLAY) 58.00 PCT. GRAV+SAND/SILT+CLAY .45

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

NS01S81 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 19.2270

12/09/82

PHI	PCT.	CUM PCT.
-0.50	0.00	0.00
0.00	.32	.32
.50	1.62	1.94
1.00	1.94	3.88
1.50	2.91	6.79
2.00	4.53	11.32
2.50	7.44	18.76
3.00	6.79	25.55
3.50	3.23	28.79
4.00	0.00	28.79
4.50	0.00	28.79
5.00	1.10	29.88
5.50	4.38	34.27
6.00	7.67	41.93
6.50	7.67	49.60
7.00	8.76	58.37
7.50	6.57	64.94
8.00	5.48	70.42
8.50	4.38	74.80
9.00	3.29	78.09
9.50	2.19	80.28
10.00	3.29	83.57
10.50	2.19	85.76
11.00	2.19	87.95
11.50	1.10	89.04
12.00	10.96	100.00

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MEAN ST. DEV. SKEWNESS KURTOSIS

6.16 2.86 -.07 -.98

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.02	5TH	1.69	16TH	2.81	25TH	3.46
			75TH	9.03	84TH	10.60	95TH	*****

PCT.	GRAVEL	0.00	SAND	28.79	SILT (PIPETTE)	46.45	CLAY (PIPETTE)	24.77
					(SEDIGRAPH)	36.15	(SEDIGRAPH)	35.06

GRAVEL+SAND 28.79 SILT/(SILT+CLAY) 50.77 PCT. GRAV+SAND/SILT+CLAY .40

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

(SCS)-SANDY MUD

NS01S82 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 28.5559

12/09/82

PHI	PCT.	CUM PCT.
- .50	0.00	0.00
0.00	0.00	0.00
.50	.02	0.00
1.00	.10	.02
1.50	.12	.12
2.00	.25	.25
2.50	.62	.50
3.00	2.10	1.11
3.50	4.46	3.22
4.00	0.00	7.68
4.50	1.85	7.68
5.00	3.69	9.52
5.50	7.39	13.22
6.00	12.00	20.60
6.50	8.31	32.60
7.00	11.08	40.91
7.50	8.31	51.99
8.00	6.46	60.30
8.50	5.54	66.76
9.00	3.69	72.30
9.50	3.69	76.00
10.00	2.77	79.69
10.50	0.00	82.46
11.00	1.85	82.46
11.50	2.77	84.30
12.00	12.93	87.07
*****	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

7.19 1.98 .04 .11

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.41	5TH	3.70	16TH	5.69	25TH	6.18
			75TH	9.37	84TH	11.42	95TH	*****

PCT. GRAVEL	0.00	SAND	7.68	SILT (PIPETTE)	57.87	CLAY (PIPETTE)	34.46
				(SEDIGRAPH)	52.62	(SEDIGRAPH)	39.70

GRAVEL+SAND 7.68 SILT/(SILT+CLAY) 57.00 PCT. GRAV+SAND/SILT+CLAY .08

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

NS01S83 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 29.3528

12/09/82

PHI	PCT. CUM PCT.
-0.50	0.00
0.00	0.00
.50	0.00
1.00	0.00
1.50	.00
2.00	.19
2.50	.17
3.00	.19
3.50	.41
4.00	.76
4.50	0.00
5.00	.98
5.50	1.97
6.00	8.85
6.50	15.72
7.00	9.83
7.50	12.78
8.00	8.85
8.50	5.90
9.00	6.88
9.50	2.95
10.00	3.93
10.50	1.97
11.00	2.95
11.50	.98
12.00	2.95
*****	10.81
	100.00

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MEAN ST. DEV. SKEWNESS KURTOSIS

7.50 1.72 .24 .41

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.43	5TH	5.52	16TH	6.08	25TH	6.37
			75TH	9.26	84TH	10.79	95TH	*****

PCT. GRAVEL	0.00	SAND	1.72	SILT (PIPETTE)	68.52	CLAY (PIPETTE)	29.76
				(SEDIGRAPH)	58.97	(SEDIGRAPH)	39.31

GRAVEL+SAND 1.72 SILT/(SILT+CLAY) 60.00 PCT. GRAV+SAND/SILT+CLAY .02

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

NS01S84 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 29.6375

12/09/82

PHI	PCT. CUMECT.	
-0.50	0.00	0.00
0.00	.00	.00
.50	.01	.00
1.00	.07	.01
1.50	.15	.08
2.00	.46	.23
2.50	.46	.70
3.00	.77	1.16
3.50	1.43	1.93
4.00	0.00	3.37
4.50	.97	3.37
5.00	3.87	4.33
5.50	4.83	8.20
6.00	5.80	13.03
6.50	0.00	18.83
7.00	5.80	18.83
7.50	8.70	24.63
8.00	8.70	33.32
8.50	6.76	42.02
9.00	7.73	48.78
9.50	5.80	56.51
10.00	5.80	62.31
10.50	4.83	68.11
11.00	5.80	72.94
11.50	8.70	78.74
12.00	12.56	87.44
*****	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

8.54 2.20 -.24 -.24

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	9.08	5TH	5.09	16TH	6.25	25TH	7.52
			75TH	11.18	84TH	11.80	95TH	*****

PCT. GRAVEL	0.00	SAND	3.37	SILT (PIPETTE)	45.17	CLAY (PIPETTE)	51.47
				(SEDIGRAPH)	29.96	(SEDIGRAPH)	66.68

GRAVEL+SAND 3.37 SILT/(SILT+CLAY) 31.00 PCT. GRAV+SAND/SILT+CLAY .03

LABELS SHEPARD -SILTY CLAY FOLK(GMS)-MUD (SCS)-CLAY

NS01S86 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 30.1624

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00
0.00	0.00	0.00
.50	.00	0.00
1.00	.01	.00
1.50	.01	.01
2.00	.01	.01
2.50	.05	.03
3.00	.13	.08
3.50	.26	.21
4.00	0.00	.47
4.50	1.01	.47
5.00	5.03	1.47
5.50	8.04	6.50
6.00	10.05	14.54
6.50	8.04	24.60
7.00	12.06	32.64
7.50	10.05	44.70
8.00	6.03	54.76
8.50	7.04	60.79
9.00	5.03	67.83
9.50	4.02	72.85
10.00	4.02	76.88
10.50	2.01	80.90
11.00	3.02	82.91
11.50	2.01	85.92
12.00	12.06	87.94
****		100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

7.72 1.73 .22 -.40

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.76	5TH	5.35	16TH	6.07	25TH	6.53
			75TH	9.77	84TH	11.13	95TH	*****

PCT. GRAVEL	0.00	SAND	.47	SILT (PIPETTE)	62.75	CLAY (PIPETTE)	36.78
				(SEDIGRAPH)	54.29	(SEDIGRAPH)	45.24

GRAVEL+SAND .47 SILT/(SILT+CLAY) 54.55 PCT. GRAV+SAND/SILT+CLAY .00

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD

(SCS)-MUD

NS01S87 221082

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 30.0915

12/09/82

PHI	PCT.	CUM PCT.
- .50		
0.00	0.00	0.00
	.00	
.50	.06	.00
1.00	.24	.06
1.50	.53	.30
2.00	1.30	.83
2.50	2.13	2.13
3.00	3.43	4.25
3.50	3.78	7.68
4.00	0.00	11.46
4.50	0.00	11.46
5.00	.88	11.46
5.50	5.26	12.34
6.00	8.77	17.60
6.50	9.64	26.37
7.00	3.51	36.01
7.50	19.29	39.51
8.00	7.89	58.80
8.50	6.14	66.69
9.00	5.26	72.83
9.50	3.51	78.08
10.00	3.51	81.59
10.50	3.51	85.10
11.00	3.51	88.60
11.50	2.63	92.11
12.00	5.26	94.74
*****		100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

7.50 2.25 -.21 .07

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.77	5TH	3.11	16TH	5.85	25TH	6.42
			75TH	9.21	84TH	10.34	95TH	*****

PCT. GRAVEL	0.00	SAND	11.46	SILT (PIPETTE)	56.13	CLAY (PIPETTE)	32.41
				(SEDIGRAPH)	47.34	(SEDIGRAPH)	41.20

GRAVEL+SAND 11.46 SILT/(SILT+CLAY) 53.47 PCT. GRAV+SAND/SILT+CLAY .13

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

NS01S88 152582

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 20.8310

PHI PCT. CUMPCT.

12/10/82

-0.50	0.00	0.00	
0.00	.00	.00	
.50	.02	.02	
1.00	.02	.04	
1.50	.07	.11	
2.00	.11	.22	
2.50	.31	.53	*
3.00	.84	1.38	**
3.50	1.86	3.24	
4.00	.48	3.72	
4.50	3.39	7.11	***
5.00	8.71	15.82	*****
5.50	11.61	27.43	*****
6.00	11.61	39.04	*****
6.50	8.71	47.75	*****
7.00	9.68	57.43	*****
7.50	5.81	63.23	*****
8.00	4.84	68.07	*****
8.50	3.87	71.94	*****
9.00	4.84	76.78	**
9.50	1.94	78.71	****
10.00	3.87	82.58	*****
10.50	4.84	87.42	*****
11.00	5.81	93.23	*****
11.50	4.84	98.06	**
12.00	1.94	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

7.54 2.20 .20 -.73

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

7.76 2.34 .34 .84

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 7.12 5TH 4.69 16TH 5.51 25TH 5.90

75TH 9.32 84TH 10.65 95TH 11.68

PCT. GRAVEL	0.00	SAND	3.24	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	- 00.00
				(SEDIGRAPH)	59.99	(SEDIGRAPH)	36.77

GRAVEL+SAND 3.24 SILT/(SILT+CLAY) 62.00 PCT. GRAV+SAND/SILT+CLAY .03

LABELS SHEPARD -CLAYEY SILT FOLK(GMS)-MUD

(SCS)-MUD

NS01S89. 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 22.6102

12/10/82

PHI	PCT.	CUM PCT.	
- .50	0.00	0.00	
0.00	0.00	0.00	
.50	.90	0.00	*
1.00	10.77	.90	*****
1.50	28.72	11.67	*****
2.00	29.62	40.39	*****
2.50	13.46	70.01	*****
3.00	3.14	83.48	***
3.50	.45	86.62	
4.00	0.00	87.07	
4.50	0.00	87.07	
5.00	1.21	87.07	*
5.50	2.02	88.28	**
6.00	1.21	90.30	*
6.50	.40	91.51	
7.00	.81	91.92	*
7.50	.81	92.73	*
8.00	.81	93.53	*
8.50	.81	94.34	*
9.00	.81	95.15	*
9.50	.81	95.96	*
10.00	.40	96.77	
10.50	.81	97.17	*
11.00	.81	97.98	*
11.50	1.21	98.79	*
*****	100.00		

MEAN ST. DEV. SKEWNESS KURTOSIS

2.75 2.03 1.29 6.11

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

2.27 1.55 .48 3.32

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.16	5TH	1.19	16TH	1.58	25TH	1.73
			75TH	2.69	84TH	3.08	95TH	8.91

PCT. GRAVEL	0.00	SAND	87.07	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	6.47	(SEDIGRAPH)	6.47

GRAVEL+SAND 87.07 SILT/(SILT+CLAY) 50.00 PCT. GRAV+SAND/SILT+CLAY 6.73

LABELS SHEPARD -SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS01S90 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 22.6930

12/10/82

PHI PCT. CUM PCT.

-2.00			
-1.50	.26	.26	
-1.00	.31	.57	
-.50	.44	1.01	
0.00	.02	1.03	
.50	1.02	2.05	*
1.00	1.21	3.26	*
1.50	1.04	4.29	*
2.00	1.55	5.84	**
2.50	1.73	7.57	**
3.00	4.31	11.88	****
3.50	6.56	18.44	*****
4.00	6.73	25.17	*****
4.50	.76	25.92	*
5.00	10.58	36.50	*****
5.50	8.31	44.82	*****
6.00	6.80	51.62	*****
6.50	6.80	58.43	*****
7.00	6.05	64.47	*****
7.50	6.80	71.28	*****
8.00	6.80	78.08	*****
8.50	4.54	82.61	****
9.00	3.78	86.39	****
9.50	3.02	89.42	***
10.00	2.27	91.69	**
10.50	1.89	93.57	**
11.00	1.51	95.09	**
11.50	1.89	96.98	**
12.00	1.51	98.49	**
****	1.51	100.00	**

MEAN ST.DEV. SKEWNESS KURTOSIS

5.92 2.61 -.01 -.17

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.5 TO 12.0 PHI

5.96 2.74 .07 1.00

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.88	1.73	3.31	3.99
		7.77	8.63	10.97

PCT. GRAVEL	.57	SAND	24.59	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	52.91	(SEDIGRAPH)	21.92

GRAVEL+SAND 25.17 SILT/((SILT+CLAY) 70.71PCT.GRAV+SAND/SILT+CLAY .34

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

NS01S91 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 19.6966

PHI PCT. CUM PCT.

12/10/82

-1.50			
-1.00	.46	.46	
-.50	1.27	1.73	*
0.00	.30	2.03	
.50	3.04	5.07	***
1.00	1.82	6.89	**
1.50	1.52	8.41	**
2.00	1.82	10.23	**
2.50	1.52	11.75	**
3.00	2.13	13.88	**
3.50	3.65	17.52	****
4.00	5.92	23.45	*****
4.50	1.19	24.64	*
5.00	3.17	27.81	***
5.50	3.97	31.78	****
6.00	4.76	36.54	*****
6.50	6.35	42.88	*****
7.00	7.93	50.82	*****
7.50	8.73	59.54	*****
8.00	7.14	66.68	*****
8.50	7.14	73.82	*****
9.00	5.55	79.37	*****
9.50	4.76	84.13	*****
10.00	3.97	88.10	****
10.50	2.38	90.48	**
11.00	5.55	96.03	*****
*****	3.97	100.00	****

MEAN ST.DEV. SKEWNESS KURTOSIS

6.28 2.90 -.29 -.36

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.0 TO 11.0 PHI

6.58 3.13 -.21 1.05

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 6.95 5TH .49 16TH 3.29 25TH 4.56

75TH 8.61 84TH 9.49 95TH 10.91

PCT. GRAVEL .46 SAND 22.99 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00

(SEDIGRAPH) 43.23 (SEDIGRAPH) 33.32

GRAVEL+SAND 23.45 SILT/(SILT+CLAY) 56.48 PCT. GRAV+SAND/SILT+CLAY .31

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

(SCS)-SANDY MUD

NS01S92 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH

SAMPLE WT. = 27.2042

PHI PCT. CUM PCT.

12/10/82

- .50			
0.00	0.00	0.00	
.50	0.00	0.00	
1.00	.07	.07	
1.50	.07	.14	
2.00	.55	.69	*
2.50	1.66	2.36	**
3.00	3.05	5.40	***
3.50	5.27	10.67	*****
4.00	10.95	21.62	*****
4.50	1.60	23.21	**
5.00	4.00	27.21	****
5.50	8.80	36.01	*****
6.00	12.00	48.01	*****
6.50	9.60	57.61	*****
7.00	7.20	64.81	*****
7.50	7.20	72.01	*****
8.00	6.40	78.40	****
8.50	3.20	81.60	****
9.00	4.00	85.60	**
9.50	2.40	88.00	**
10.00	2.40	90.40	***
10.50	3.20	93.60	**
11.00	2.40	96.00	**
11.50	2.40	98.40	*
12.00	1.20	99.60	
****	.40	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

6.32 2.31 .18 -.45

KRUMBEIN + PETTI JOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

6.22 2.45 .13 1.07

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 6.10 5TH 2.93 16TH 3.74 25TH 4.72

75TH 7.73 84TH 8.80 95TH 10.79

PCT. GRAVEL	0.00	SAND	21.62	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	56.79	(SEDIGRAPH)	21.60

GRAVEL+SAND 21.62 SILT/(SILT+CLAY) 72.45 PCT. GRAV+SAND/SILT+CLAY .28

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

(SCS)-SANDY SILT

NS01S93 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 32.7453

12/10/82

PHI PCT. CUM PCT.

- .50	.05		
0.00	.18	.05	
.50	.23		
1.00	.68	.90	*
1.50	1.58	2.49	**
2.00	5.65		*****
2.50	12.21	8.14	*****
3.00	17.19	20.35	*****
3.50	33.02	37.54	*****
4.00	2.26	70.56	**
4.50	.81	72.82	*
5.00	2.15	73.63	**
5.50	1.08	75.78	*
6.00	2.15	76.86	**
6.50	2.69	79.01	***
7.00	2.15	81.70	**
7.50	3.23	83.85	***
8.00	2.15	87.08	**
8.50	2.69	89.24	***
9.00	2.15	91.93	**
9.50	1.61	94.08	**
10.00	1.61	95.69	**
10.50	.81	97.31	**
11.00	.27	98.92	*
*****		99.73	
		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

4.04 2.31 .66 .64

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.0 PHI

4.18 2.32 .62 1.42

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 3.19 5TH 1.72 16TH 2.32 25TH 2.64

75TH 4.82 84TH 7.02 95TH 9.28

PCT. GRAVEL 0.00 SAND 72.82 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00

(SEDIGRAPH) 16.42 (SEDIGRAPH) 10.76

GRAVEL+SAND 72.82 SILT/(SILT+CLAY) 60.40 PCT. GRAV+SAND/SILT+CLAY 2.68

LABELS SHEPARD -SILTY SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS01S94 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 17.3856

PHI PCT. CUM PCT.

12/09/82

-0.50			
0.00	0.00	0.00	
	0.00		
.50	.09	0.00	
1.00	.18	.09	
1.50	.46	.28	
2.00	.37	.73	
2.50	.92	1.10	*
3.00	1.65	2.02	**
3.50	2.94	3.67	***
4.00	.47	6.61	
4.50	2.36	7.08	**
5.00	6.60	9.44	*****
5.50	9.43	16.05	*****
6.00	10.38	25.48	*****
6.50	8.49	35.85	*****
7.00	8.49	44.34	*****
7.50	7.55	52.83	*****
8.00	6.60	60.38	*****
8.50	5.66	66.98	*****
9.00	4.72	72.64	*****
9.50	3.77	77.36	*****
10.00	2.83	81.13	***
10.50	2.83	83.96	***
11.00	3.77	86.79	****
11.50	1.89	90.57	**
12.00	7.55	92.45	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

7.29 2.12 .02 -.21

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	7.33	5TH	3.73	16TH	5.50	25TH	5.97
			75TH	9.25	84TH	10.51	95TH	*****

PCT. GRAVEL	0.00	SAND	6.61	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	53.77	(SEDIGRAPH)	39.62

GRAVEL+SAND 6.61 SILT/(SILT+CLAY) 57.58 PCT. GRAV+SAND/SILT+CLAY .07

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

NS01S95 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 15.7135

PHI PCT. CUMECT.

12/09/82

-2.50			
-2.00	.06	.06	
-1.50	.13	.19	
-1.00	.13	.32	
-.50	.13	.45	
0.00	0.00	.45	
.50	.51	.95	*
1.00	.67	.95	*
1.50	1.18	1.62	*
2.00	2.36	2.80	**
2.50	3.70	5.16	****
3.00	4.21	8.86	****
3.50	5.22	13.07	*****
4.00	5.72	18.29	*****
4.50	.38	24.01	
5.00	4.22	24.40	****
5.50	6.14	28.62	*****
6.00	6.14	34.76	*****
6.50	6.14	40.90	*****
7.00	4.61	47.04	*****
7.50	6.91	51.65	*****
8.00	6.14	58.55	*****
8.50	4.61	64.69	*****
9.00	4.61	69.30	*****
9.50	4.61	73.90	*****
10.00	3.84	78.51	****
10.50	3.07	82.35	***
11.00	3.07	85.42	***
11.50	2.30	88.49	**
12.00	1.54	90.79	*
*****	7.68	92.32	*****
*****		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

6.36	2.80	-.06	-.73	KRUMBEIN + PETTICORN (1938) MOMENT MEASURES FOR SIZE RANGE -2.0 TO 12.0 PHI
------	------	------	------	--

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

PERCENTILES	MEDIAN	6.82	5TH	1.97	16TH	3.28	25TH	4.57
			75TH	9.12	84TH	10.27	95TH	*****

PCT. GRAVEL	.32	SAND	23.70	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
-------------	-----	------	-------	----------------	-------	----------------	-------

(SEDIGRAPH) 40.68

(SEDIGRAPH) 35.31

GRAVEL+SAND 24.01 SILT/(SILT+CLAY) 53.54 PCT. GRAV+SAND/SILT+CLAY .32

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

(SCS) -SANDY MUD

NS01S96 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 22.6850

12/09/82

PHI PCT. CUM PCT.

-2.50			*****
-2.00	4.54	4.54	****
-1.50	3.84	8.38	****
-1.00	4.63	13.00	*****
-.50	5.42	18.43	*****
0.00	.33	18.75	
.50	6.21	24.96	*****
1.00	4.25	29.21	****
1.50	3.27	32.48	***
2.00	4.58	37.05	*****
2.50	3.27	40.32	***
3.00	4.58	44.90	*****
3.50	7.19	52.09	*****
4.00	7.19	59.28	*****
4.50	.89	60.16	*
5.00	2.66	62.82	***
5.50	3.54	66.36	****
6.00	3.54	69.90	****
6.50	4.43	74.33	****
7.00	2.66	76.98	***
7.50	2.66	79.64	***
8.00	2.66	82.29	***
8.50	1.77	84.06	**
9.00	2.66	86.72	***
9.50	2.66	89.38	***
10.00	1.77	91.15	**
10.50	1.77	92.92	**
11.00	1.77	94.69	**
11.50	3.54	98.23	****
*****	1.77	100.00	**

MEAN ST.DEV. SKEWNESS KURTOSIS

3.64 3.82 .15 -.90

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.0 TO 11.5 PHI

3.70 4.27 .15 .87

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	3.35	5TH	-1.94	16TH	-.72	25TH	.50
			75TH	6.63	84TH	8.48	95TH	11.04

PCT. GRAVEL	13.00	SAND	46.27	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	23.02	(SEDIGRAPH)	17.71

GRAVEL+SAND 59.28 SILT/(SILT+CLAY) 56.52PCT.GRAV+SAND/SILT+CLAY 1.46

LABELS SHEPARD -SILTY SAND FOLK(GMS)-GRAVELLY MUDDY SAND (SGS)-

NS01S97 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 26.7553

PHI PCT. CUMFCT.

12/09/82

-2.50			*
-2.00	.75		*
-1.50	.60	1.35	*
-1.00	1.35	2.69	**
-.50	2.09	4.78	
0.00	.32	5.10	
.50	6.08	11.18	*****
1.00	7.04	18.23	*****
1.50	8.32	26.55	*****
2.00	15.36	41.91	*****
2.50	19.20	61.11	*****
3.00	7.68	68.79	*****
3.50	3.20	71.99	***
4.00	1.28	73.27	*
4.50	.32	73.59	*
5.00	1.27	74.86	**
5.50	1.59	76.45	***
6.00	3.18	79.63	***
6.50	2.55	82.18	***
7.00	1.91	84.09	**
7.50	1.91	86.00	**
8.00	1.91	87.91	*
8.50	1.27	89.18	**
9.00	1.91	91.09	**
9.50	1.91	93.00	*
10.00	1.27	94.27	*
10.50	.64	94.91	*
11.00	.64	95.54	*
11.50	1.27	96.82	*
12.00	1.27	98.09	*
*****	1.91	100.00	**

MEAN ST.DEV. SKEWNESS KURTOSIS

3.15 3.01 .57 .61

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.0 TO 12.0 PHI

3.34 3.16 .56 1.21

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 2.21 5TH -.16 16TH .84 25TH 1.41

75TH 5.04 84TH 6.98 95TH 10.57

PCT. GRAVEL 2.69 SAND 70.58 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00

(SEDIGRAPH) 14.64

(SEDIGRAPH) 12.09

GRAVEL+SAND 73.27 SILT/(SILT+CLAY) 54.76PCT.GRAV+SAND/SILT+CLAY 2.74

LABELS SHEPARD -SILTY SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS01S98 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 41.2413

PHI PCT. CUMFCT.

12/09/82

-2.00	.19		
-1.50	.70	.19	*
-1.00	2.18	.90	**
-.50	.42	3.08	
0.00	13.88	3.50	*****
.50	15.98	17.38	*****
1.00	21.87	33.36	*****
1.50	23.55	55.23	*****
2.00	11.78	78.78	*****
2.50	2.52	90.55	***
3.00	.42	93.08	
3.50	.42	93.50	
4.00	.15	93.92	
4.50	.30	94.07	
5.00	0.00	94.36	
5.50	.30	94.36	
6.00	.44	94.66	
6.50	.44	95.11	
7.00	.30	95.55	
7.50	.59	95.85	*
8.00	.30	96.44	
8.50	.30	96.74	
9.00	.30	97.03	
9.50	.59	97.33	*
10.00	.15	97.92	
10.50	.44	98.07	
11.00	.15	98.52	
11.50	.74	98.67	*
12.00	.59	99.41	*
*****	100.00		

MEAN ST.DEV. SKEWNESS KURTOSIS

1.65 1.90 1.60 12.20

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.5 TO 12.0 PHI

1.35 1.40 .27 2.20

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 1.38 5TH .05 16TH .45 25TH .74

75TH 1.92 84TH 2.22 95TH 6.38

PCT. GRAVEL	.90	SAND	93.02	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	2.52	(SEDIGRAPH)	3.56

GRAVEL+SAND 93.92 SILT/(SILT+CLAY) 41.46PCT.GRAV+SAND/SILT+CLAY 15.44

LABELS SHEPARD -SAND

FOLK(GMS)-SAND

(SCS)-SAND

NS01S99 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 11.2040

12/09/32

PHI PCT. CUM PCT.

- .50			
0.00	0.00	0.00	
	.78		*
.50	.98	.78	*
1.00	2.16	1.77	**
1.50	5.10	3.92	*****
2.00	7.45	9.02	*****
2.50	10.20	16.48	*****
3.00	12.55	26.67	*****
3.50	8.24	39.23	*****
4.00	1.25	47.47	*
4.50	1.25	48.72	*
5.00	6.25	49.97	*****
5.50	5.00	56.22	*****
6.00	2.50	61.22	***
6.50	2.50	63.73	***
7.00	5.00	66.23	*****
7.50	2.50	71.23	***
8.00	2.50	73.73	***
8.50	3.75	76.23	*****
9.00	3.75	79.99	*****
9.50	1.25	83.74	*
10.00	2.50	84.99	***
10.50	.63	87.49	*
11.00	1.88	88.12	**
11.50	1.25	89.99	*
12.00	8.76	91.24	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

5.03 2.84 .31 -.69

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	5.00	5TH	1.61	16TH	2.47	25TH	2.92
			75TH	8.25	84TH	9.60	95TH	*****

PCT. GRAVEL	0.00	SAND	47.47	SILT (PIPETTE)	00.00	CLAY (PIPETTE)	00.00
				(SEDIGRAPH)	26.27	(SEDIGRAPH)	26.27

GRAVEL+SAND 47.47 SILT/(SILT+CLAY) 50.00 PCT. GRAV+SAND/SILT+CLAY .90

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

NS01S00 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 38.8872

12/09/82

PHI PCT. CUMFCT.

-3.50			*****
-3.00	6.02	6.02	
-2.50	2.75	8.77	***
-2.00	1.88	10.65	**
-1.50	2.26	12.91	**
-1.00	1.59	14.50	**
-.50	2.29	16.79	
0.00	0.00	16.79	
.50	6.16	22.95	*****
1.00	9.68	32.63	*****
1.50	14.08	46.71	*****
2.00	20.24	66.96	*****
2.50	17.60	84.56	*****
3.00	4.84	89.40	*****
3.50	2.20	91.60	**
4.00	.44	92.04	
4.50	0.00	92.04	
5.00	.54	92.58	*
5.50	.75	93.33	*
6.00	.43	93.76	
6.50	.43	94.19	
7.00	.65	94.84	*
7.50	.43	95.27	
8.00	.43	95.70	
8.50	.22	95.91	
9.00	.43	96.34	
9.50	.43	96.77	
10.00	.43	97.20	
10.50	.22	97.42	
11.00	.22	97.63	
11.50	.86	98.49	*
*****	1.51	100.00	**

MEAN ST.DEV. SKEWNESS KURTOSIS

1.37 2.44 .47 3.67

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 11.5 PHI

1.13 2.35 -.17 2.60

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	1.58	5TH	-3.08	16TH	-.67	25TH	.61
			75TH	2.23	84TH	2.43	95TH	7.19

PCT. GRAVEL 14.50 SAND 77.54 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00

(SEDIGRAPH) 3.66 (SEDIGRAPH) 4.30

GRAVEL+SAND 92.04 SILT/(SILT+CLAY) 45.95 PCT.GRAV+SAND/SILT+CLAY 11.56

LABELS SHEPARD -SAND FOLK (GMS) -GRAVELLY SAND (SCS) -

NS02S01 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 33.8378

12/09/82

PHI PCT. CUM PCT.

-3.50			*****
-3.00	4.79	4.79	
-2.50	0.00	4.79	
-2.00	3.55	8.33	****
-1.50	.62	8.95	*
-1.00	.86	9.81	*
-.50	.35	10.17	
0.00	.00	10.17	
.50	.63	10.80	*
1.00	1.48	12.28	*
1.50	3.38	15.66	***
2.00	9.72	25.37	*****
2.50	25.77	51.14	*****
3.00	15.63	66.77	*****
3.50	13.94	80.71	*****
4.00	3.80	84.51	****
4.50	.40	84.91	
5.00	1.85	86.76	**
5.50	1.32	88.08	*
6.00	1.19	89.28	*
6.50	1.46	90.73	*
7.00	.53	91.26	*
7.50	1.06	92.32	*
8.00	.79	93.11	*
8.50	.26	93.38	
9.00	1.06	94.44	*
9.50	.26	94.70	*
10.00	.79	95.50	*
10.50	.53	96.03	*
11.00	.53	96.56	*
11.50	.53	97.09	*
12.00	1.06	98.15	*
*****	1.85	100.00	**

MEAN ST. DEV. SKEWNESS KURTOSIS

2.64	2.69	.30	2.55
2.64	2.45	.20	3.79

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 12.0 PHIFOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 2.48 5TH -2.47 16TH 1.52 25TH 1.98

75TH 3.30

84TH 3.93

95TH 9.69

PCT. GRAVEL 9.81 SAND 74.70 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00
(SEDIGRAPH) 8.61 (SEDIGRAPH) 6.89

GRAVEL+SAND 84.51 SILT/((SILT+CLAY) 55.56 PCT.GRAV+SAND/SILT+CLAY 5.46

LABELS SHEPARD -SAND FOLK(GMS)-GRAVELLY MUDDY SAND (SCS)-

NS02S02 151182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 32.5011

PHI PCT. CUMFCT.

12/09/82

-3.00			*
-2.50	.65		
-2.00	.43	1.08	
-1.50	.12	1.20	
-1.00	.03	1.23	
-.50	.31	1.54	
0.00	.11	1.65	
.50	.45	2.10	
1.00	.28	2.38	
1.50	1.40	3.79	*
2.00	15.73	19.51	*****
2.50	26.96	46.48	*****
3.00	24.72	71.19	*****
3.50	10.11	81.30	*****
4.00	4.49	85.80	****
4.50	.63	86.43	*
5.00	1.51	87.93	**
5.50	1.26	89.19	*
6.00	1.76	90.95	**
6.50	1.51	92.46	**
7.00	1.01	93.46	*
7.50	1.51	94.97	**
8.00	1.01	95.98	*
8.50	.75	96.73	*
9.00	1.26	97.99	*
9.50	1.01	98.99	*
*****	1.01	100.00	*

MEAN ST.DEV. SKEWNESS KURTOSIS

2.96 1.75 .70 3.93

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.5 TO 9.5 PHI

2.75 1.38 .47 2.25

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 2.57 5TH 1.54 16TH 1.89 25TH 2.10

75TH 3.19 84TH 3.80 95TH 7.51

PCT. GRAVEL 1.23 SAND 84.57 SILT (PIPETTE) 00.00 CLAY (PIPETTE) 00.00
(SEDIGRAPH) 10.18 (SEDIGRAPH) 4.02

GRAVEL+SAND 85.80 SILT/(SILT+CLAY) 71.68 PCT. GRAV+SAND/SILT+CLAY 6.04

LABELS SHEPARD -SAND FOLK(GMS)-MUDDY SAND (SCS)-SILTY SAND

NS02S03 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 14.6000

12/09/82

PHI PCT. CUM PCT.

-3.00			
-2.50	2.05	2.05	**
-2.00	2.19	4.25	**
-1.50	0.00	4.25	
-1.00	.21	4.45	
-.50	.21	4.66	
0.00	0.00	4.66	
.50	.07	4.73	
1.00	2.65	7.37	***
1.50	4.07	11.45	****
2.00	4.07	15.52	****
2.50	5.43	20.96	*****
3.00	9.51	30.47	*****
3.50	8.83	39.29	*****
4.00	4.07	43.37	****
4.50	3.43	46.80	***
5.00	1.72	48.52	**
5.50	3.43	51.95	***
6.00	3.43	55.38	***
6.50	5.15	60.53	*****
7.00	1.72	62.25	**
7.50	5.15	67.39	*****
8.00	3.43	70.83	***
8.50	3.43	74.26	***
9.00	5.15	79.41	*****
9.50	1.72	81.12	**
10.00	3.43	84.56	***
10.50	3.43	87.99	***
11.00	3.43	91.42	***
11.50	5.15	96.57	*****
*****	3.43	100.00	***

MEAN ST. DEV. SKEWNESS KURTOSIS

5.24 3.55 -.02 -.72

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.5 TO 11.5 PHI

5.73 3.60 .17 .76

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.22	.55	2.04	2.71
		75TH	8.57	95TH
			9.92	11.35

PCT. GRAVEL 4.45 SAND 38.92 SILT (PIPETTE) 39.93 CLAY (PIPETTE) 16.70

(SEDIGRAPH) 27.46

(SEDIGRAPH) 29.17

GRAVEL+SAND 43.37 SILT/((SILT+CLAY) 48.48PCT.GRAV+SAND/SILT+CLAY .77

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

(SCS)-SANDY MUD

NS02S04 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 16.2400

12/09/82

PHI PCT. CUM PCT.

-2.50			*
-2.00	.68	.68	
-1.50	0.00	.68	
-1.00	0.00	.68	
-.50	0.00	.68	
0.00	0.00	.68	
.50	.31	.68	
1.00	0.00	.99	
1.50	.31	.99	
2.00	2.47	1.30	**
2.50	6.81	3.77	*****
3.00	8.66	10.58	*****
3.50	7.73	19.24	*****
4.00	0.00	26.97	
4.50	5.53	26.97	*****
5.00	7.75	32.50	*****
5.50	6.09	40.25	*****
6.00	6.09	46.33	*****
6.50	4.43	52.42	****
7.00	5.53	56.85	*****
7.50	3.32	62.38	***
8.00	3.32	65.70	***
8.50	3.32	69.02	***
9.00	3.32	72.34	***
9.50	3.32	75.66	***
10.00	2.77	78.98	***
10.50	3.87	81.74	****
11.00	2.21	85.62	**
11.50	3.32	87.83	***
12.00	8.85	91.15	*****
*****	100.00		

MEAN ST. DEV. SKEWNESS KURTOSIS

6.25 2.84 .09 -.57

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	6.30	5TH	2.59	16TH	3.31	25TH	3.87
			75TH	9.40	84TH	10.79	95TH	*****

PCT. GRAVEL .68 SAND 26.29 SILT (PIPETTE) 49.80 CLAY (PIPETTE) 23.23

(SEDIGRAPH) 38.73

(SEDIGRAPH) 34.30

GRAVEL+SAND 26.97 SILT/(SILT+CLAY) 53.03 PCT. GRAV+SAND/SILT+CLAY .37

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

(SCS)-SANDY MUD

NS02S05 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 17.8100

12/09/82

PHI PCT. CUM PCT.

-1.50			
-1.00	.06	.06	
-.50	.11	.17	
0.00	0.00	.17	
.50	.27	.44	
1.00	.27	.71	
1.50	.55	1.26	*
2.00	2.73	3.99	***
2.50	6.01	10.00	*****
3.00	8.74	18.74	*****
3.50	9.83	28.58	*****
4.00	7.65	36.23	*****
4.50	.97	37.19	*
5.00	5.31	42.51	*****
5.50	7.25	49.75	*****
6.00	6.76	56.52	*****
6.50	6.76	63.28	*****
7.00	2.90	66.18	***
7.50	5.80	71.98	*****
8.00	2.90	74.88	***
8.50	3.87	78.74	***
9.00	2.90	81.64	***
9.50	1.93	83.57	**
10.00	2.90	86.47	***
10.50	1.93	88.40	**
11.00	2.90	91.30	***
11.50	1.93	93.24	**
12.00	1.45	94.69	*
*****	5.31	100.00	*****

MEAN ST. DEV. SKEWNESS KURTOSIS

5.59 2.72 .23 -.68

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.52	2.08	2.84	3.32
		75TH	84TH	95TH
		8.02	9.57	*****

PCT. GRAVEL	SAND	SILT (PIPETTE)	CLAY (PIPETTE)
.06	36.17	45.06	18.71
		(SEDIGRAPH) 38.65	(SEDIGRAPH) 25.12

GRAVEL+SAND 36.23 SILT/(SILT+CLAY) 60.61 PCT. GRAV+SAND/SILT+CLAY .57

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

(SCS)-SANDY MUD

NS02S06 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 19.0100

12/09/82

PHI PCT. CUMPCT.

-3.00			
-2.50	1.63		**
-2.00	0.00	1.63	
-1.50	0.00	1.63	
-1.00	.05	1.63	
-.50	.16	1.68	
0.00	0.00	1.84	
.50	.30	1.84	
1.00	.15	2.14	
1.50	.74	2.29	*
2.00	2.98	3.03	***
2.50	3.57	6.01	*****
3.00	8.93	9.58	*****
3.50	15.48	18.51	*****
4.00	7.74	34.00	*****
4.50	.37	41.74	
5.00	3.36	42.11	***
5.50	5.98	45.47	*****
6.00	5.98	51.45	*****
6.50	5.23	57.42	*****
7.00	4.48	62.65	****
7.50	4.48	67.13	****
8.00	3.73	71.61	****
8.50	2.24	75.35	**
9.00	3.73	77.59	****
9.50	2.99	81.33	***
10.00	2.24	84.31	**
10.50	2.99	86.55	***
11.00	2.24	89.54	**
11.50	2.24	91.78	**
12.00	3.73	94.02	****
12.50	2.24	97.76	**
13.00		100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

5.58 3.08 .10 -.32

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.5 TO 12.0 PHI

5.90 3.13 .26 .85

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	5.38	5TH	1.85	16TH	2.86	25TH	3.21
			75TH	7.95	84TH	9.45	95TH	11.63

PCT. GRAVEL 1.68 SAND 40.05 SILT (PIPETTE) 39.80 CLAY (PIPETTE) 18.46

(SEDIGRAPH) 33.61 (SEDIGRAPH) 24.65

GRAVEL+SAND 41.74 SILT/(SILT+CLAY) 57.69 PCT.GRAV+SAND/SILT+CLAY .72

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

NS02S07 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 23.1600

12/09/82

PHI PCT. CUM PCT.

-1.50			
-1.00	.04	.04	
-.50	.09	.13	
0.00	0.00	.13	
.50	0.00	.13	
1.00	.10	.23	
1.50	.40	.62	
2.00	3.46	4.09	***
2.50	9.89	13.97	*****
3.00	11.87	25.84	*****
3.50	13.85	39.69	*****
4.00	9.89	49.58	*****
4.50	1.36	50.94	*
5.00	6.81	57.75	*****
5.50	6.13	63.89	*****
6.00	6.13	70.02	*****
6.50	4.09	74.11	****
7.00	3.41	77.51	***
7.50	3.75	81.26	****
8.00	2.38	83.65	**
8.50	2.73	86.37	***
9.00	1.36	87.73	*
9.50	2.04	89.78	**
10.00	2.04	91.82	**
10.50	2.04	93.87	**
11.00	1.36	95.23	*
*****	4.77	100.00	*****

MEAN ST. DEV. SKEWNESS KURTOSIS

4.75 2.35 .41 -.22

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -1.0 TO 11.0 PHI

4.94 2.71 .48 .99

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	4.16	5TH	2.05	16TH	2.59	25TH	2.96
			75TH	6.63	84TH	8.06	95TH	10.92

PCT. GRAVEL	.04	SAND	49.53	SILT (PIPETTE)	36.44	CLAY (PIPETTE)	13.98
				(SEDIGRAPH)	34.07	(SEDIGRAPH)	16.35

GRAVEL+SAND 49.58 SILT/(SILT+CLAY) 67.57 PCT. GRAV+SAND/SILT+CLAY .98

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

NS02S08 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 18.0500

PHI PCT. CUM PCT.

12/09/82

-3.50			
-3.00	.89	.89	*
-2.50	.39	1.27	
-2.00	0.00	1.27	
-1.50	1.00	2.27	*
-1.00	.06	2.33	
-.50	.11	2.44	
0.00	0.00	2.44	
.50	0.00	2.44	
1.00	.45	2.44	
1.50	2.29	2.90	**
2.00	3.67	5.19	****
2.50	7.34	8.86	*****
3.00	9.17	16.19	*****
3.50	7.34	25.36	*****
4.00	2.43	32.70	**
4.50	6.49	35.13	*****
5.00	7.30	41.62	*****
5.50	7.30	48.92	*****
6.00	7.30	56.21	*****
6.50	4.05	63.51	****
7.00	4.05	67.57	****
7.50	4.05	71.62	****
8.00	2.43	75.67	**
8.50	3.24	78.11	***
9.00	3.24	81.35	***
9.50	2.43	84.59	**
10.00	2.43	87.03	**
10.50	2.43	89.46	**
11.00	1.62	91.89	**
11.50	1.62	93.51	**
12.00	4.87	95.13	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

5.57 2.88 -.02 .24

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 12.0 PHI

5.99 3.12 .24 .92

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 5.57 5TH 1.96 16TH 2.99 25TH 3.48

75TH 7.92

84TH 9.41

95TH 11.96

PCT. GRAVEL 2.33 SAND 30.37 SILT (PIPETTE) 46.23 CLAY (PIPETTE) 21.07
(SEDIGRAPH) 42.98 (SEDIGRAPH) 24.33
GRAVEL+SAND 32.70 SILT/(SILT+CLAY) 63.86 PCT. GRAV+SAND/SILT+CLAY .49
LABELS SHEPARD -SAN SIL CLY FOLK(GMS)-SANDY MUD (SCS)-SANDY MUD

NS02S09 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 25.3000

12/09/82

PHI PCT. CUM PCT.

-3.00			
-2.50	2.13	2.13	**
-2.00	1.82	3.95	**
-1.50	1.34	5.30	*
-1.00	.47	5.77	
-.50	.51	6.28	*
0.00	0.00	6.28	
.50	.62	6.90	*
1.00	.31	7.21	
1.50	.31	7.52	
2.00	7.42	14.95	*****
2.50	28.46	43.40	*****
3.00	43.31	86.71	*****
3.50	4.95	91.66	*****
4.00	.62	92.28	*
4.50	.39	92.66	
5.00	.39	93.05	
5.50	.39	93.44	
6.00	.77	94.21	*
6.50	.77	94.98	*
7.00	.39	95.37	
7.50	.77	96.14	*
8.00	.77	96.91	*
8.50	.39	97.30	
9.00	.39	97.68	
9.50	.77	98.46	*
10.00	.39	98.84	
10.50	.39	99.23	
11.00	.39	99.61	
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

2.58 1.89 .38 5.82

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.5 TO 11.0 PHI

2.52 1.47 -.10 4.85

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	2.58	5TH	-1.61	16TH	2.02	25TH	2.18
			75TH	2.86	84TH	2.97	95TH	6.53

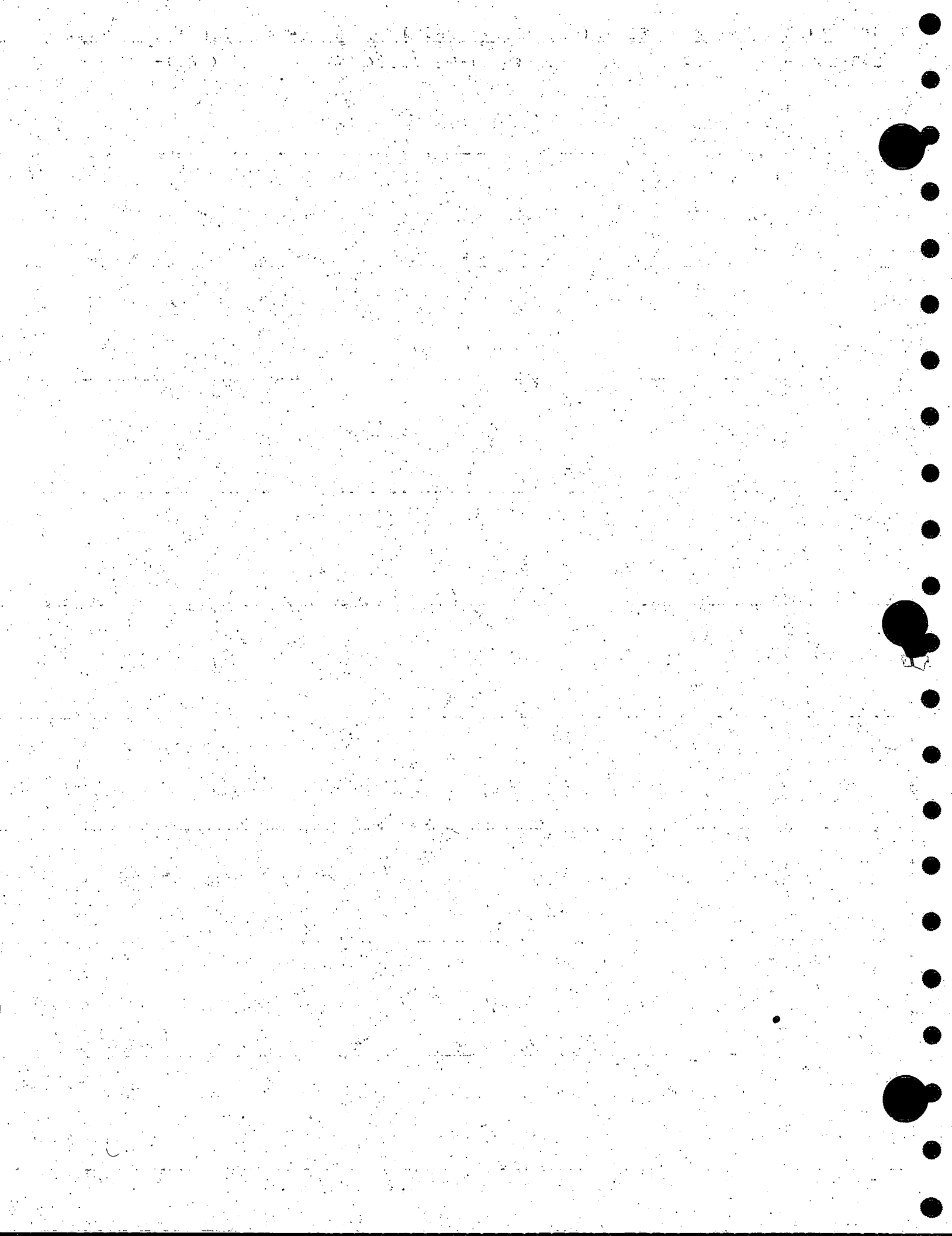
PCT. GRAVEL	5.77	SAND	86.51	SILT (PIPETTE)	3.83	CLAY (PIPETTE)	3.90
				(SEDIGRAPH)	4.63	(SEDIGRAPH)	3.09

GRAVEL+SAND 92.28 SILT/(SILT+CLAY) 60.00PCT.GRAV+SAND/SILT+CLAY 11.95

LABELS SHEPARD -SAND

FOLK(GMS)-GRAVELLY SAND

(SCS)-



NS02S10 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 26.8300

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00
0.00	0.00	0.00
.50	.49	0.00
1.00	.24	.49
1.50	.73	.73
2.00	3.89	1.46
2.50	18.94	5.34
3.00	34.00	24.29
3.50	8.74	58.29
4.00	1.00	67.03
4.50	2.00	68.03
5.00	2.00	70.03
5.50	1.00	72.02
6.00	3.00	73.02
6.50	1.00	76.02
7.00	3.00	77.02
7.50	2.00	80.02
8.00	2.00	82.02
8.50	2.00	84.01
9.00	2.00	86.01
9.50	3.00	88.01
10.00	3.00	91.01
10.50	2.00	94.01
11.00	2.00	96.00
11.50	2.00	98.00
*****	100.00	

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MEAN ST. DEV. SKEWNESS KURTOSIS

4.64 2.61 .62 .16

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 11.5 PHI

4.89 2.69 .78 1.02

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES	MEDIAN	3.38	5TH	2.46	16TH	2.78	25TH	3.01
			75TH	6.33	84TH	8.50	95TH	10.75

PCT. GRAVEL	0.00	SAND	67.03	SILT (PIPETTE)	21.98	CLAY (PIPETTE)	10.99
				(SEDIGRAPH)	14.99	(SEDIGRAPH)	17.98

GRAVEL+SAND 67.03 SILT/(SILT+CLAY) 45.45 PCT. GRAV+SAND/SILT+CLAY 2.03

LABELS SHEPARD -CLAYEY SAND FOLK (GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS02S11 112582

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 19.2700

12/09/82

PHI PCT. CUM PCT.

- .50	0.00	0.00	
0.00	0.00	0.00	
.50	.07	0.00	
1.00	.28	.07	
1.50	.34	.34	
2.00	3.44	.69	***
2.50	6.88	4.13	*****
3.00	9.63	11.00	*****
3.50	7.57	20.63	*****
4.00	1.75	28.20	**
4.50	6.13	29.95	*****
5.00	7.88	36.08	*****
5.50	7.00	43.96	*****
6.00	5.25	50.97	*****
6.50	5.25	56.22	*****
7.00	4.38	61.47	****
7.50	5.25	65.85	*****
8.00	3.50	71.10	****
8.50	3.50	74.61	****
9.00	3.50	78.11	****
9.50	2.63	81.61	***
10.00	2.63	84.24	***
10.50	2.63	86.87	***
11.00	3.50	89.49	****
11.50	1.75	93.00	**
12.00	5.25	94.75	*****
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

6.11 2.66 .20 -.85

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	5TH	16TH	25TH
	5.93	2.56	3.25	3.79
		75TH	84TH	95TH
		8.56	9.95	*****

PCT. GRAVEL	0.00	SAND	28.20	SILT (PIPETTE)	48.05	CLAY (PIPETTE)	23.75
				(SEDIGRAPH)	42.91	(SEDIGRAPH)	28.90

GRAVEL+SAND 28.20 SILT/(SILT+CLAY) 59.76 PCT. GRAV+SAND/SILT+CLAY .39

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

NS02S12 251182

SIEVE, SETT. TUBE, PIPETTE (2) SAMPLE WT. = 30.0100

12/09/82

PHI PCT. CUM PCT.

-4.00			*****
-3.50	4.90	4.90	
-3.00	13.40	18.29	*****
-2.50	12.80	31.09	*****
-2.00	8.16	39.25	*****
-1.50	8.50	47.75	*****
-1.00	8.86	56.61	*****
-.50	7.36	63.98	*****
0.00	1.18	65.16	*
.50	16.55	81.72	*****
1.00	5.32	87.04	*****
1.50	3.55	90.58	*****
2.00	2.96	93.54	***
2.50	.59	94.13	*
3.00	.59	94.72	*
3.50	0.00	94.72	
4.00	0.00	94.72	
8.00	2.99	97.71	***
*****	2.29	100.00	**

MEAN ST. DEV. SKEWNESS KURTOSIS

-1.34 1.62 .16 -1.02

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.5 TO 4.0 PHI

-1.25 2.14 .28 1.06

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN -1.37 5TH -3.50 16TH -3.09 25TH -2.74

75TH .30 84TH .71 95TH 4.37

PCT. GRAVEL 56.61 SAND 38.11 SILT (PIPETTE) 2.99 CLAY (PIPETTE) 2.29

(SEDIGRAPH) 0.00 (SEDIGRAPH) 0.00

GRAVEL+SAND 94.72 SILT/(SILT+CLAY) 56.57 PCT. GRAV+SAND/SILT+CLAY 17.95

LABELS SHEPARD -SAND FOLK (GMS) -MUDDY SANDY GRAVEL (SCS) -

NS03S67 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 14.9700

PHI PCT. CUM PCT.

12/09/82

-0.50	0.00	0.00	
0.00	.04	.04	
.50	.16	.21	
1.00	1.03	1.24	*
1.50	1.24	2.47	*
2.00	1.65	4.12	**
2.50	2.47	6.60	**
3.00	4.12	10.72	****
3.50	6.18	16.90	*****
4.00	.87	17.77	*
4.50	6.06	23.83	*****
5.00	9.52	33.35	*****
5.50	11.25	44.60	*****
6.00	12.12	56.72	*****
6.50	8.66	65.38	*****
7.00	8.66	74.03	*****
7.50	6.06	80.09	*****
8.00	6.06	86.15	*****
8.50	5.19	91.34	*****
9.00	8.66	100.00	*****

MEAN ST. DEV. SKEWNESS KURTOSIS

5.88 1.78 -.25 -.23

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 9.0 PHI

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

PERCENTILES	MEDIAN	6.22	5TH	2.68	16TH	3.93	25TH	5.06
			75TH	7.58	84TH	8.32	95TH	*****
PCT. GRAVEL	0.00	SAND	16.90	SILT (PIPETTE)	79.91	CLAY (PIPETTE)	3.19	
				(SEDIGRAPH)	63.19	(SEDIGRAPH)	19.91	

GRAVEL+SAND 16.90 SILT/(SILT+CLAY) 76.04 PCT. GRAV+SAND/SILT+CLAY .20

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

NS03S69 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 31.4900

PHI PCT. CUM PCT.

12/09/82

-2.50			*
-2.00	.60	.60	*
-1.50	.51	1.11	*
-1.00	.83	1.94	*
-.50	.57	2.51	*
0.00	0.00	2.51	
.50	.74	3.25	*
1.00	1.24	4.49	*
1.50	2.97	7.46	***
2.00	10.89	18.35	*****
2.50	24.76	43.11	*****
3.00	25.75	68.86	*****
3.50	8.91	77.77	*****
4.00	3.96	81.73	****
4.50	.73	82.46	*
5.00	1.83	84.29	**
5.50	1.46	85.75	*
6.00	1.83	87.58	**
6.50	1.46	89.04	*
7.00	1.10	90.14	*
7.50	1.46	91.60	*
8.00	.73	92.33	*
8.50	1.10	93.42	*
9.00	.73	94.15	*
9.50	1.10	95.25	*
10.00	.37	95.62	*
10.50	1.10	96.71	*
11.00	.37	97.08	*
11.50	.73	97.81	*
12.00	.37	98.17	*
*****	1.83	98.17	**
*****		100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

3.16 2.21 .83 3.62

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -2.0 TO 12.0 PHI

3.15 2.01 .57 2.81

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 2.63 5TH 1.09 16TH 1.89 25TH 2.13

75TH 3.34 84TH 4.92 95TH 9.39

PCT. GRAVEL 1.94 SAND 79.80 SILT (PIPETTE) 12.19 CLAY (PIPETTE) 6.07

(SEDIGRAPH) 10.59

(SEDIGRAPH) 7.67

GRAVEL+SAND 81.73 SILT/(SILT+CLAY) 58.00PCT.GRAV+SAND/SILT+CLAY 4.47

LABELS SHEPARD -SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS03S70 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 26.5900

12/09/82

PHI	PCT.	CUMFCT.	
-3.50			
-3.00	4.40	4.40	****
-2.50	9.70	14.10	*****
-2.00	4.25	18.35	****
-1.50	8.05	26.40	*****
-1.00	6.13	32.53	*****
-.50	4.63	37.16	****
0.00	1.14	38.30	*
.50	7.42	45.72	*****
1.00	4.57	50.28	****
1.50	7.99	58.27	*****
2.00	14.27	72.54	*****
2.50	10.27	82.81	*****
3.00	1.71	84.53	**
3.50	1.71	86.24	**
4.00	1.14	87.38	*
4.50	0.00	87.38	
5.00	.97	88.35	*
5.50	1.29	89.64	*
6.00	.97	90.61	*
6.50	.97	91.59	*
7.00	1.13	92.72	*
7.50	1.46	94.17	*
8.00	.65	94.82	*
8.50	.97	95.79	*
9.00	.65	96.44	*
9.50	.97	97.41	*
10.00	.32	97.73	
10.50	.32	98.06	
11.00	.32	98.38	
11.50	.16	98.54	
12.00	.49	99.03	
****	.97	100.00	*

MEAN ST.DEV. SKEWNESS KURTOSIS

.89 3.08 .53 1.20

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 12.0 PHI

.51 2.96 .01 1.22

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN .97 5TH -2.97 16TH -2.28 25TH -1.59

75TH 2.12

84TH 2.85

95TH 8.09

PCT. GRAVEL	32.53	SAND	54.85	SILT (PIPETTE)	8.02	CLAY (PIPETTE)	4.60
				(SEDIGRAPH)	7.44	(SEDIGRAPH)	5.18
GRAVEL+SAND	87.38	SILT/(SILT+CLAY)	58.97	PCT.GRAV+SAND/SILT+CLAY	6.92		
LABELS SHEPARD -SAND		FOLK(GMS)-MUDDY SANDY GRAVEL		(SCS)-			

NS03S71 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 18.5400

PHI PCT. CUM PCT.

12/09/82

- .50		
0.00	.05	.05
.50	.22	.27
1.00	.14	.41
1.50	.14	.54
2.00	.54	1.09
2.50	1.63	2.72
3.00	6.52	9.23
3.50	12.49	21.73
4.00	11.95	33.68
4.50	2.07	35.75
5.00	8.29	44.04
5.50	6.91	50.95
6.00	6.22	57.17
6.50	5.53	62.69
7.00	4.15	66.84
7.50	0.00	66.84
8.00	2.07	68.91
8.50	2.76	71.68
9.00	6.91	78.58
9.50	3.45	82.04
10.00	2.76	84.80
10.50	2.76	87.56
11.00	4.15	91.71
11.50	1.38	93.09
12.00	3.45	96.55
*****	3.45	100.00

MEAN ST. DEV. SKEWNESS KURTOSIS

5.99 2.77 .27 -.88

KRUMBEIN + PETTICORN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 12.0 PHI

6.19 3.03 .37 .73

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 5.43 5TH 2.68 16TH 3.27 25TH 3.64

75TH 8.74 84TH 9.85 95TH 11.78

PCT. GRAVEL	0.00	SAND	33.68	SILT (PIPETTE)	48.77	CLAY (PIPETTE)	17.55
				(SEDIGRAPH)	35.23	(SEDIGRAPH)	31.09

GRAVEL + SAND 33.68 SILT / (SILT + CLAY) 53.12 PCT. GRAV + SAND / SILT + CLAY .51

LABELS SHEPARD - SAN SIL CLY FOLK (GMS) - SANDY MOD

(SCS) - SANDY MOD

NS03S72 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 23.0000

12/09/82

PHI PCT. CUM PCT.

-0.50	0.00	0.00
0.00	.12	.12
.50	.25	.37
1.00	.25	.62
1.50	1.86	2.48
2.00	9.94	12.42
2.50	28.57	40.99
3.00	24.22	65.20
3.50	6.83	72.03
4.00	.67	72.70
4.50	2.00	74.70
5.00	2.66	77.36
5.50	2.66	80.02
6.00	2.66	82.69
6.50	2.00	84.69
7.00	2.00	86.68
7.50	1.33	88.01
8.00	1.33	89.35
8.50	2.00	91.34
9.00	1.33	92.68
9.50	1.33	94.01
10.00	1.33	95.34
10.50	4.66	100.00

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MEAN ST. DEV. SKEWNESS KURTOSIS

3.91 2.02 .81 1.67

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 0.0 TO 10.5 PHI

4.19 2.32 .73 1.45

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 3.19 5TH 2.13 16TH 2.56 25TH 2.72

75TH 5.06 84TH 6.83 95TH 10.37

PCT. GRAVEL 0.00 SAND 72.03 SILT (PIPETTE) 19.66 CLAY (PIPETTE) 8.30

(SEDIGRAPH) 15.98 (SEDIGRAPH) 11.99

GRAVEL+SAND 72.03 SILT/(SILT+CLAY) 57.14 PCT. GRAV+SAND/SILT+CLAY 2.58

LABELS SHEPARD -SILTY SAND FOLK(GMS)-MUDDY SAND (SCS)-MUDDY SAND

NS03S74 112582

SIEVE, SH. PIP., SEDIGRAPH SAMPLE WT.= 29.7600

PHI PCT. CUM PCT.

12/09/82

3.50	0.00	0.00	
4.00	0.00	0.00	
4.50	0.00	0.00	
5.00	1.01	1.01	*
5.50	2.02	3.03	**
6.00	4.04	7.07	****
6.50	5.05	12.12	*****
7.00	12.12	24.24	*****
7.50	10.10	34.34	*****
8.00	12.12	46.46	*****
8.50	11.11	57.58	*****
9.00	7.07	64.65	*****
9.50	6.06	70.71	*****
10.00	5.05	75.76	***
10.50	3.03	78.79	****
11.00	4.04	82.83	***
11.50	3.03	85.86	*****
12.00	14.14	100.00	

MEAN ST.DEV. SKEWNESS KURTOSIS

8.50 1.51 .15 -.46

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE 4.0 TO 12.0 PHI

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

PERCENTILES	MEDIAN	8.66	5TH	6.24	16TH	7.16	25TH	7.54
			75TH	10.43	84TH	11.69	95TH	*****
PCT. GRAVEL	0.00	SAND	-.00	SILT (PIPETTE)	41.93	CLAY (PIPETTE)	58.07	
				(SEDIGRAPH)	34.34	(SEDIGRAPH)	65.66	
GRAVEL+SAND	-.00	SILT/(SILT+CLAY)	34.34	PCT. GRAV+SAND/SILT+CLAY	-.00			
LABELS SHEPARD	-SILTY CLAY	FOLK(GMS)-MUD		(SCS)-MUD				

NS03S75 112582

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 26.5700

12/09/82

PHI PCT. CUM PCT.

-3.50			*****
-3.00	4.55	4.55	
-2.50	9.67	14.23	*****
-2.00	1.24	15.47	*
-1.50	.79	16.26	*
-1.00	1.09	17.35	*
-.50	.72	18.07	*
0.00	0.00	18.07	
.50	1.00	19.07	*
1.00	2.51	21.58	***
1.50	3.01	24.59	***
2.00	6.02	30.62	*****
2.50	5.52	36.14	*****
3.00	9.04	45.17	*****
3.50	19.58	64.75	*****
4.00	9.04	73.79	*****
4.50	1.01	74.80	*
5.00	2.02	76.81	**
5.50	3.02	79.84	***
6.00	3.02	82.86	***
6.50	2.02	84.88	**
7.00	1.01	85.89	*
7.50	2.02	87.90	**
8.00	2.02	89.92	**
8.50	1.01	90.93	*
9.00	.50	91.43	*
9.50	1.01	92.44	*
10.00	.50	92.94	*
10.50	1.01	93.95	*
11.00	1.01	94.96	*
11.50	.50	95.46	*
12.00	.50	95.97	*
****	4.03	100.00	****

MEAN ST. DEV. SKEWNESS KURTOSIS

2.71 3.35 .03 .08

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 12.0 PHI

2.58 4.11 -.04 1.90

FOLK GRAPHIC STATISTICAL PARAMETERS
FOLK AND WARD, 1957

PERCENTILES MEDIAN 3.12 5TH -2.98 16TH -1.66 25TH 1.53

75TH 4.55

84TH 6.28

95TH 11.04

PCT. GRAVEL 17.35 SAND 56.44 SILT (PIPETTE) 19.25 CLAY (PIPETTE) 6.96
(SEDIGRAPH) 16.13 (SEDIGRAPH) 10.08
GRAVEL+SAND 73.79 SILT/(SILT+CLAY) 61.54 PCT.GRAV+SAND/SILT+CLAY 2.82
LABELS SHEPARD -SILTY SAND FOLK(GMS)-GRAVELLY MUDDY SAND (SGS)-

NS03S76 251182

SIEVE, SETT. TUBE, PIPET, SEDIGRAPH SAMPLE WT. = 25.6200

PHI PCT. CUM PCT.

12/09/82

-3.50			**
-3.00	1.95	1.95	***
-2.50	2.77	4.72	**
-2.00	2.30	7.03	***
-1.50	3.43	10.46	**
-1.00	2.26	12.72	***
-.50	2.77	15.50	*
0.00	.53	16.02	*****
.50	7.92	23.94	****
1.00	3.70	27.64	**
1.50	2.11	29.75	****
2.00	4.22	33.97	*****
2.50	10.03	44.00	*****
3.00	5.28	49.28	****
3.50	3.70	52.98	***
4.00	3.17	56.14	*
4.50	.53	56.67	**
5.00	2.11	58.79	**
5.50	2.11	60.90	***
6.00	3.17	64.07	***
6.50	3.17	67.24	***
7.00	3.17	70.41	***
7.50	3.17	73.58	***
8.00	3.17	76.75	***
8.50	3.17	79.92	***
9.00	2.64	82.56	***
9.50	2.64	85.21	**
10.00	2.11	87.32	*
10.50	1.06	88.38	**
11.00	2.11	90.49	**
11.50	1.59	92.07	*
12.00	1.59	93.66	*****
*****	6.34	100.00	

MEAN ST. DEV. SKEWNESS KURTOSIS

3.63 3.99 .12 -.94

KRUMBEIN + PETTIJOHN (1938) MOMENT MEASURES
FOR SIZE RANGE -3.0 TO 12.0 PHI.

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

PERCENTILES MEDIAN 3.10 5TH -2.44 16TH -.02 25TH .64

75TH 7.72

84TH 9.27

95TH*****

PCT. GRAVEL 12.72 SAND 43.42 SILT (PIPETTE) 23.16 CLAY (PIPETTE) 20.69
(SEDIGRAPH) 20.61 (SEDIGRAPH) 23.25
GRAVEL+SAND 56.14 SILT/(SILT+CLAY) 46.99 PCT. GRAV+SAND/SILT+CLAY 1.28
LABELS SHEPARD -SAN SIL CLY FOLK(GMS)-GRAVELLY MUD (SCS)-

23731-