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THE MORPHOLOGICAL, SEDIMENTARY AND HYDRAULIC PROPERTIES OF TWO COARSE CLASTIC (PEBBLE) BEACHES ALONG THE HERITAGE COAST OF GLAMORGAN, WALES.

N.E. CALDWELL

A thesis submitted for the degree of Doctor of Philosophy.

CNAA-Polytechnic of Wales, April 1983.

VOLUME 2

FIGURES, TABLES, PLATES and APPENDICES

LIST OF FIGURES

LIST OF FIGURES (continued)

LIST OF FIGURES (continued)

LIST OF TABLES

LIST OF PLATES

LIST OF PLATES (continued)

LIST OF APPENDICES

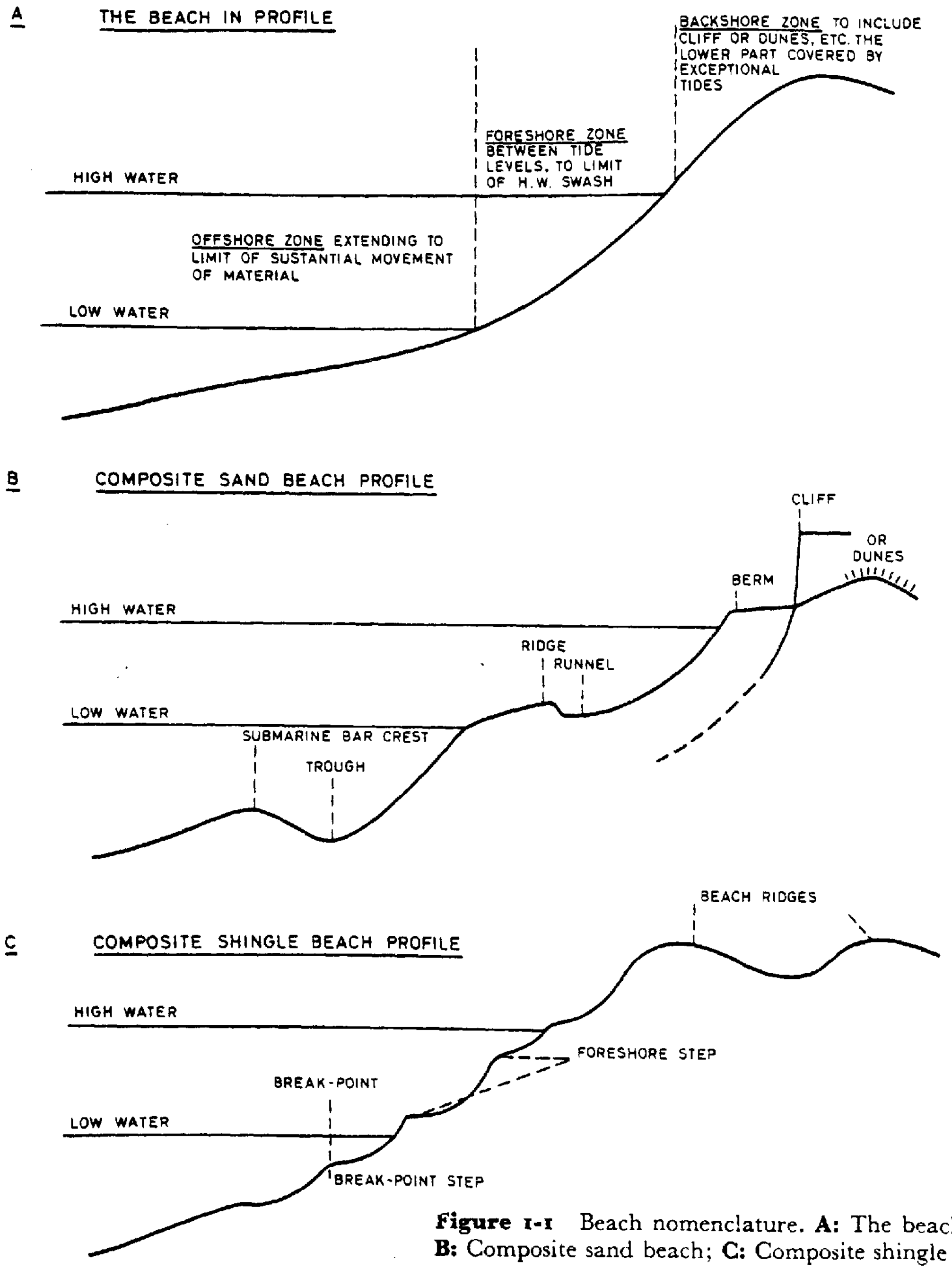


Figure 1-1 Beach nomenclature. **A:** The beach in profile; **B:** Composite sand beach; **C:** Composite shingle beach.

FIGURE 1.1 BEACH NOMENCLATURE TAKEN FROM KING (1972)

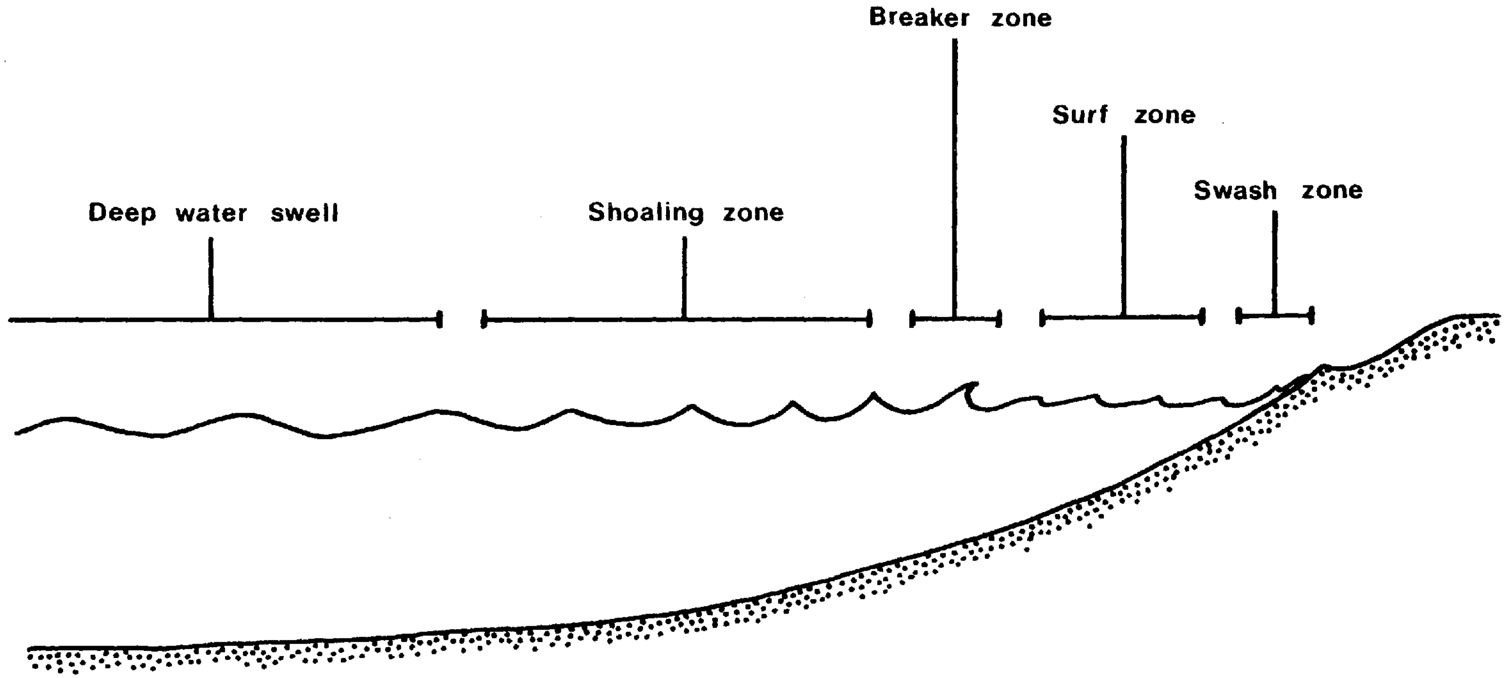


FIGURE 1.2 WAVE / BEACH INTERACTION ZONES

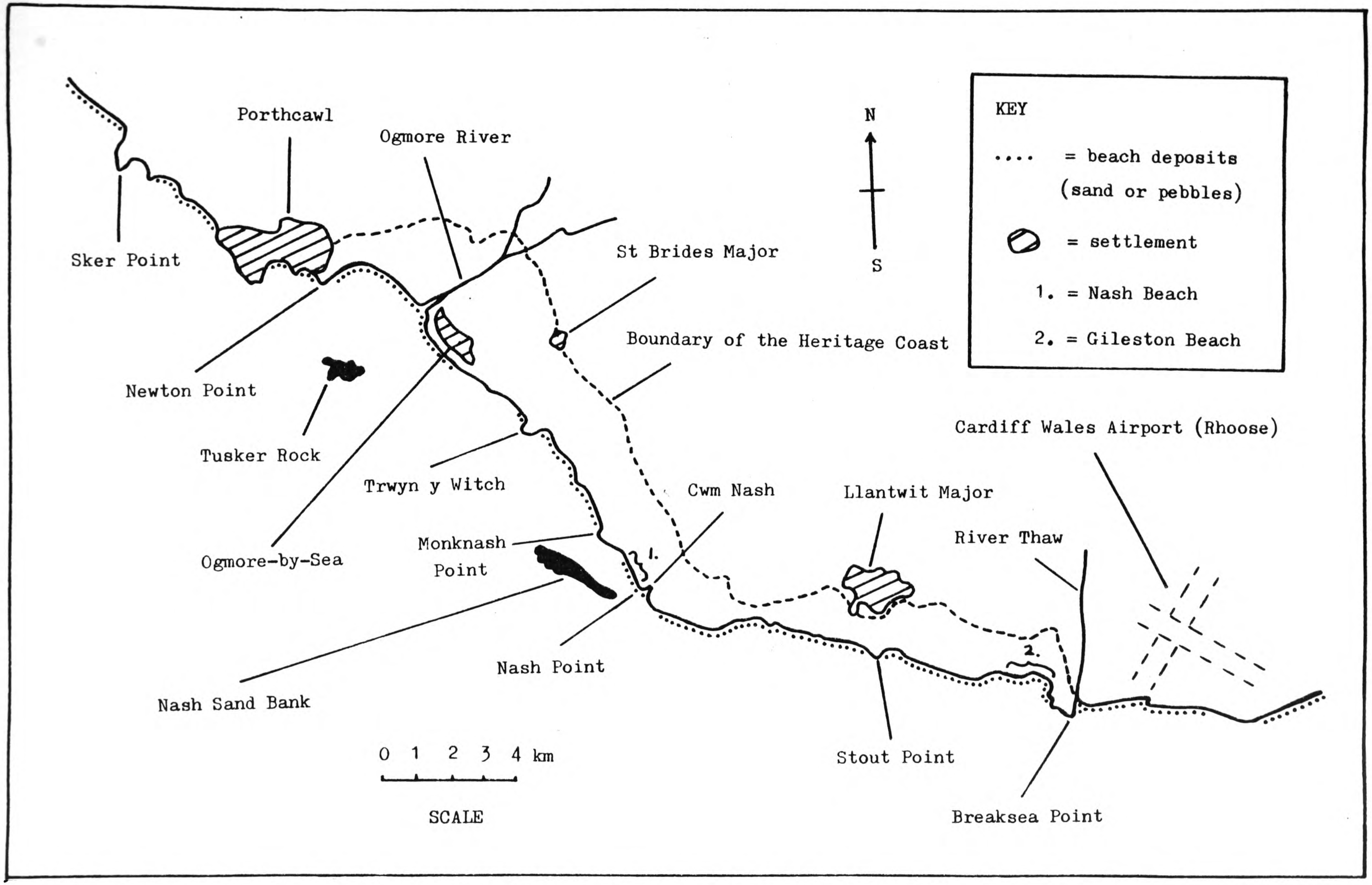
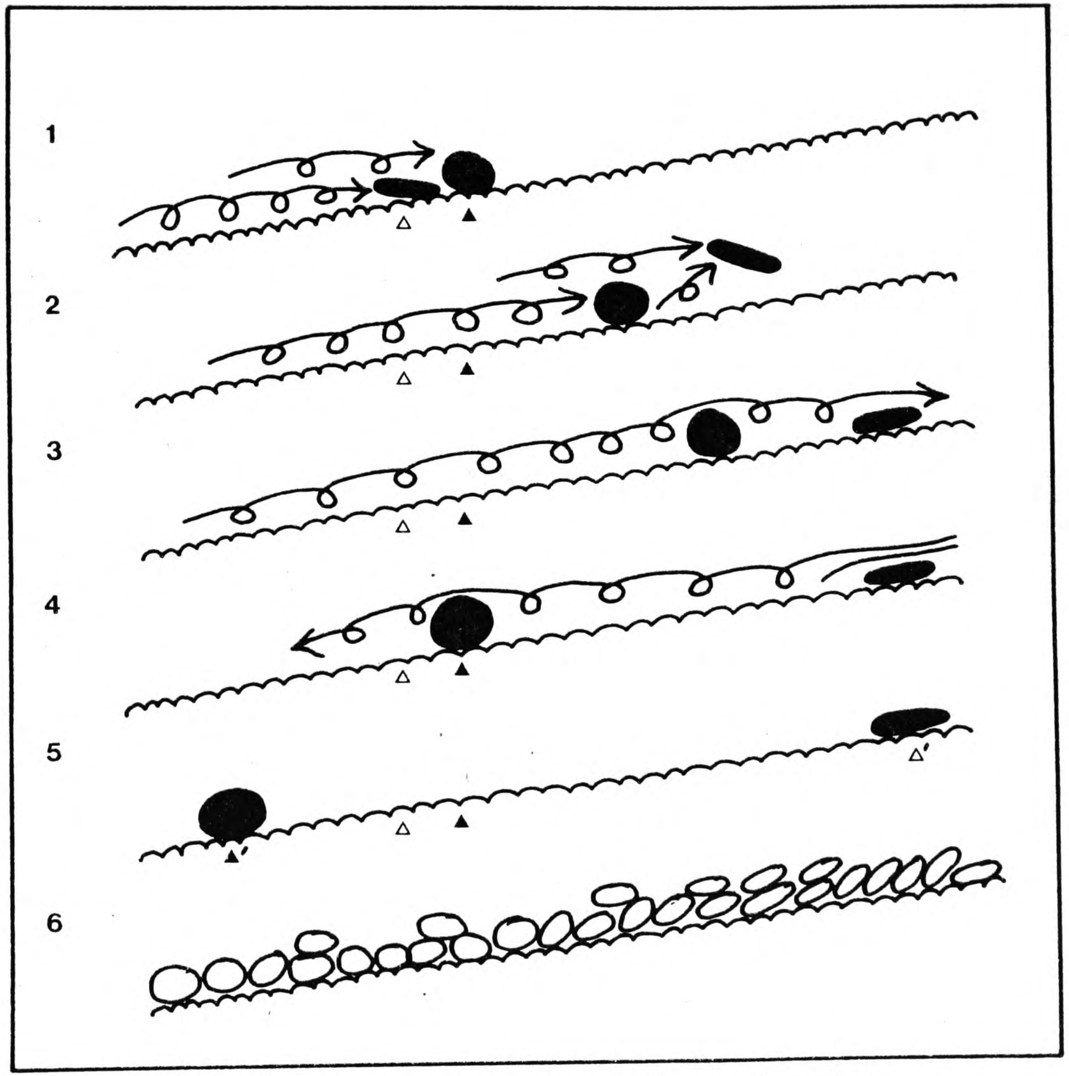


FIGURE 1.3 <u>LOCATION MAP OF THE GLAMORGAN HERITAGE COAST</u>



Idealised Diagram of Shape Sorting

FIGURE 1.4

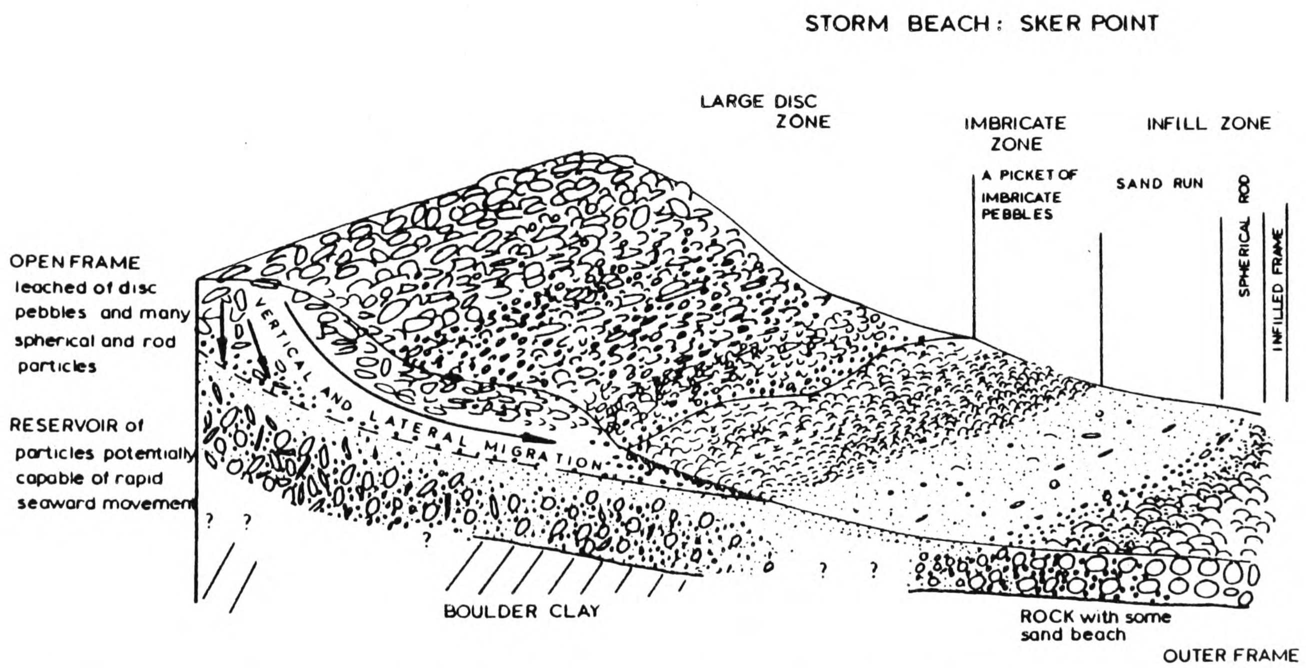


FIG. 26.—A composite diagram showing a part of the Sker Point storm beach. The diagram is based partly on a number of trench sections.

FIGURE 1.5 BLUCK'S (1967) SEDIMENTATION MODEL

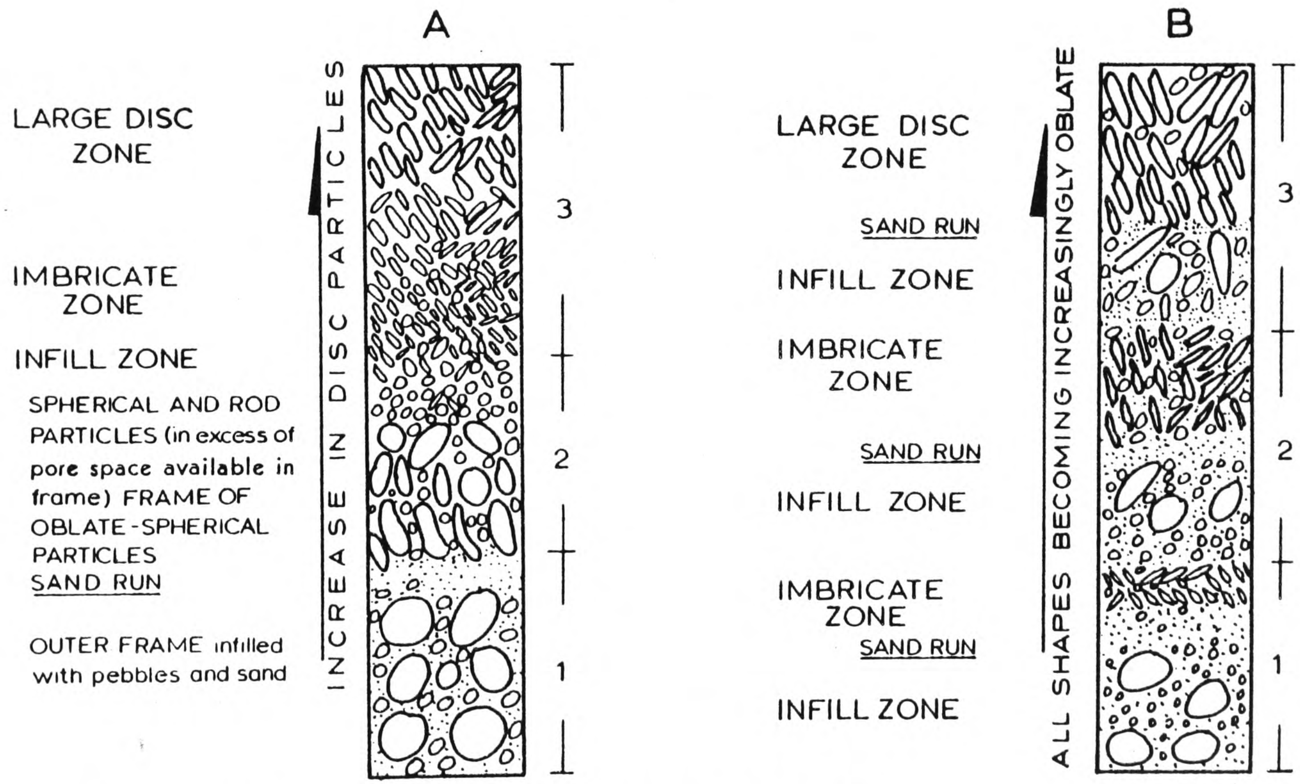
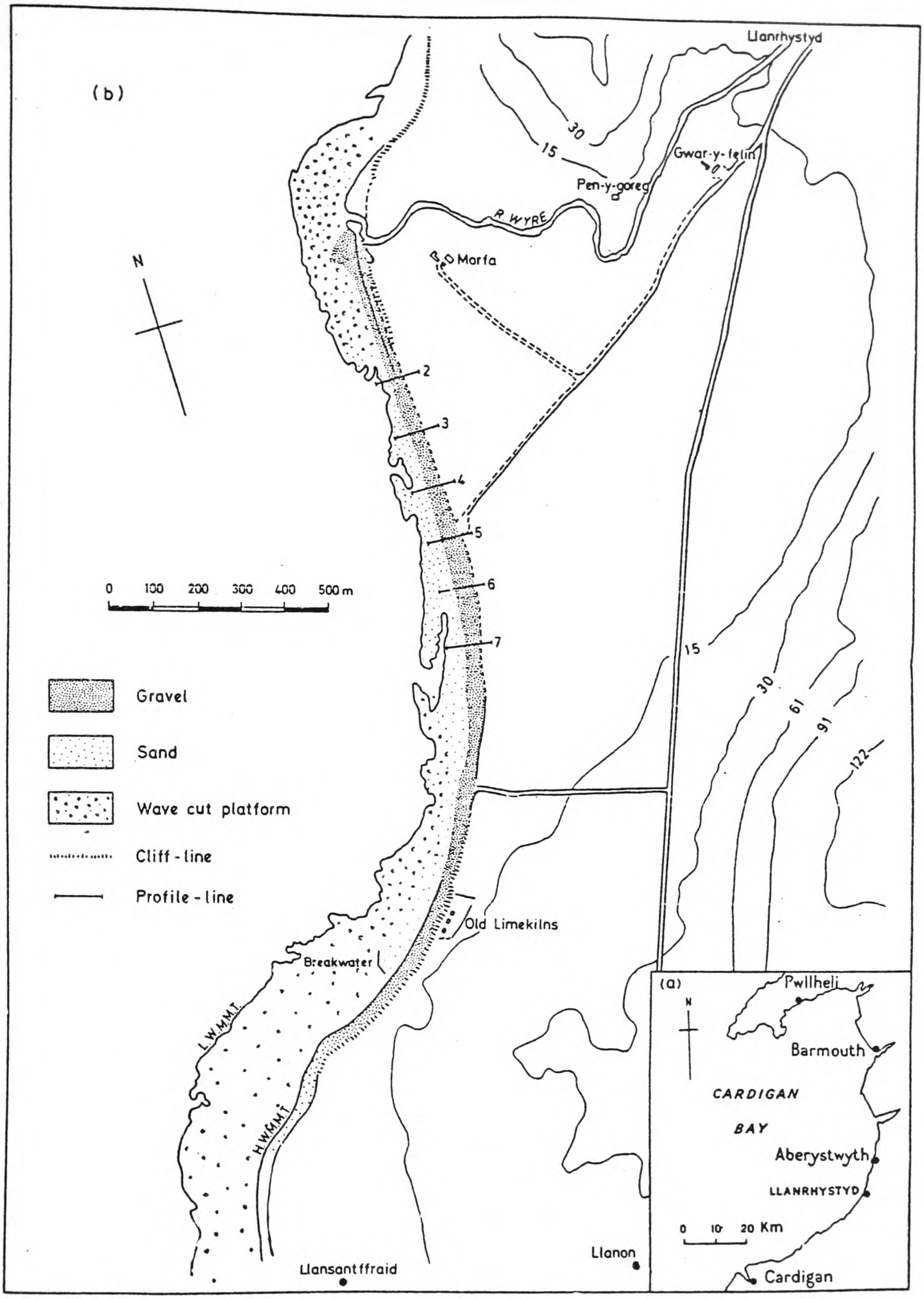


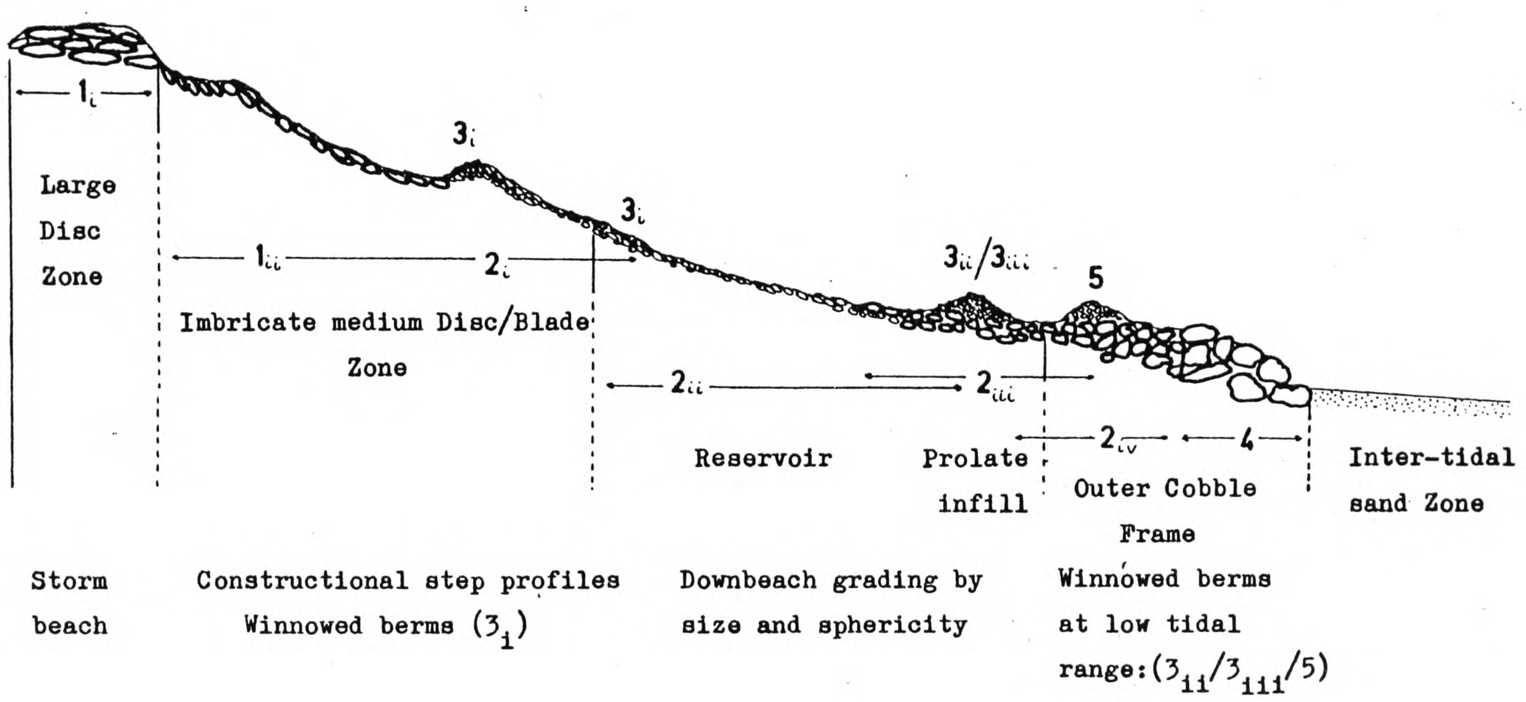
FIG. 29.—Model successions built up by the complete breakdown of the storm beaches. A is the Sker type and succession designated 1 overlain by 2 have been recorded in a few instances; the complete sequence has not been observed. B is the Newton type and once again the succession 1 overlain by 2 has been seen but the complete sequence has not.

FIGURE 1.6 BLUCK'S (1967) SEDIMENTATION SEQUENCES



Location (a) and structure (b) of study beach: Llanrhystyd Gravel Beach, Dyfed, West Wales.

FIGURE 1.7 SITE OF ORFORD'S (1978) INVESTIGATIVE WORK



Sedimentological and genetic basis of sub-facies found at Llanrhystyd gravel beach (1973-74)

FIGURE 1.8 ORFORD'S (1978) SEDIMENTATION MODEL

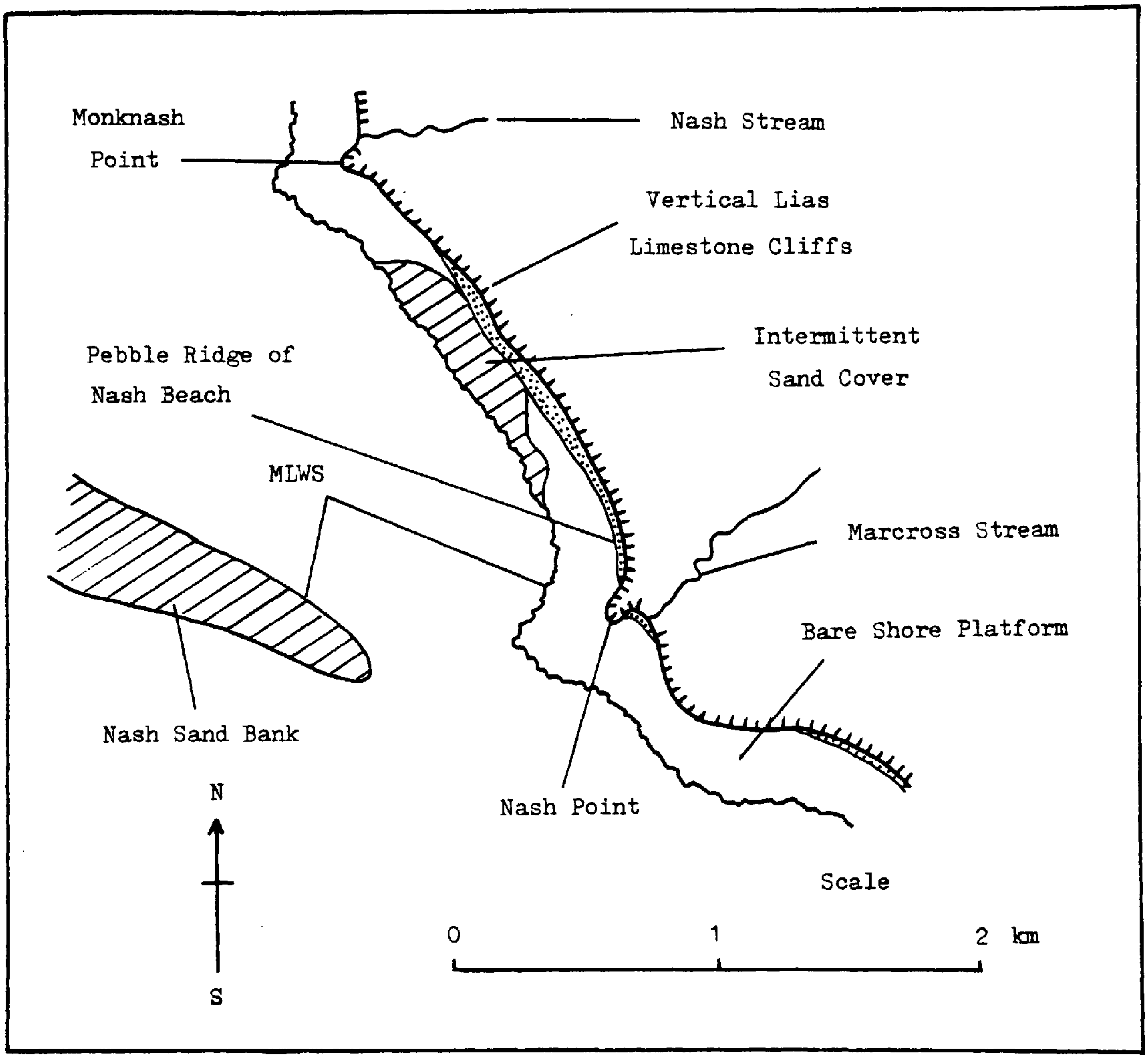


FIGURE 2.1 PHYSICAL SETTING OF NASH BEACH

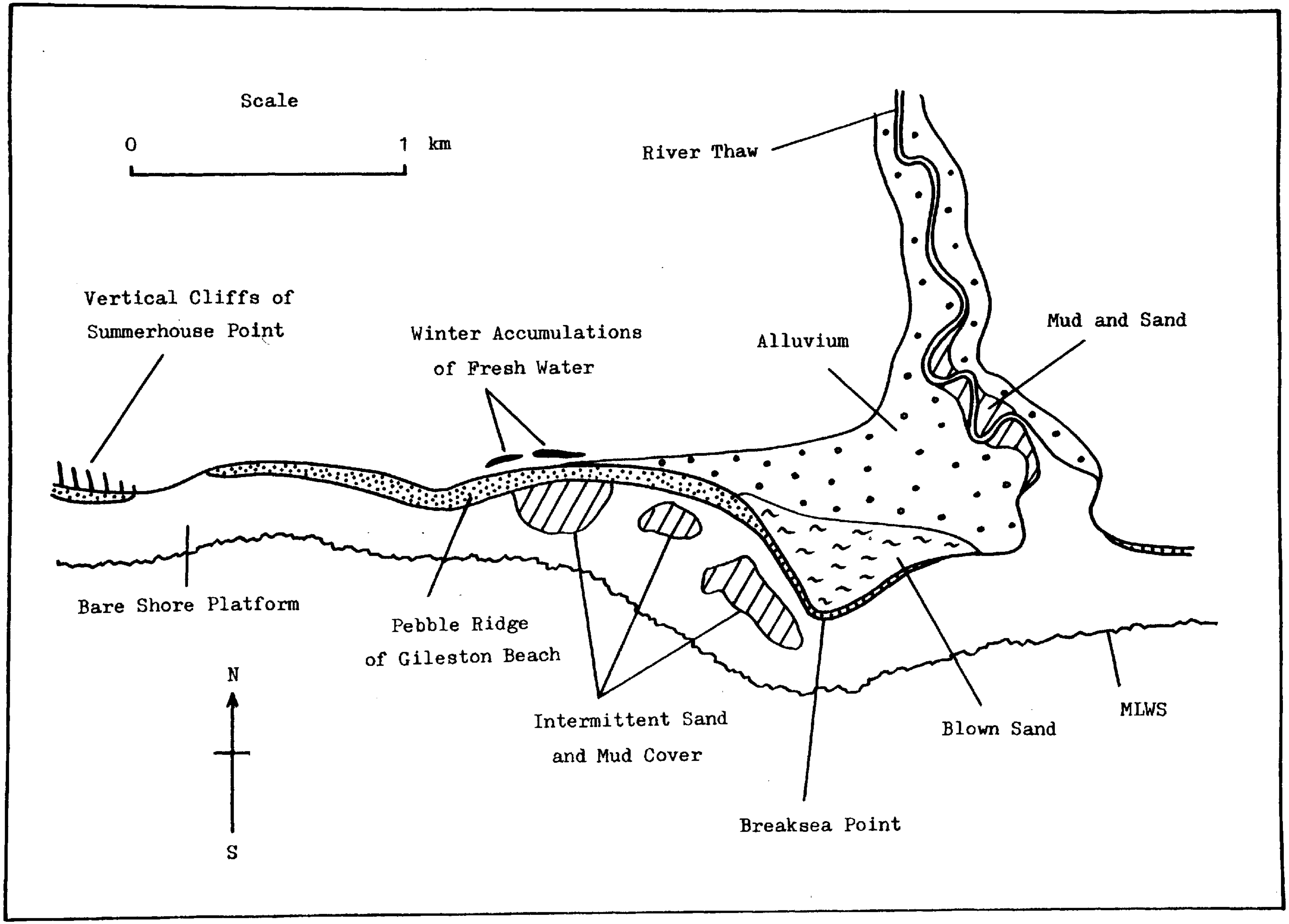


FIGURE 2.2 PHYSICAL SETTING OF GILESTON BEACH

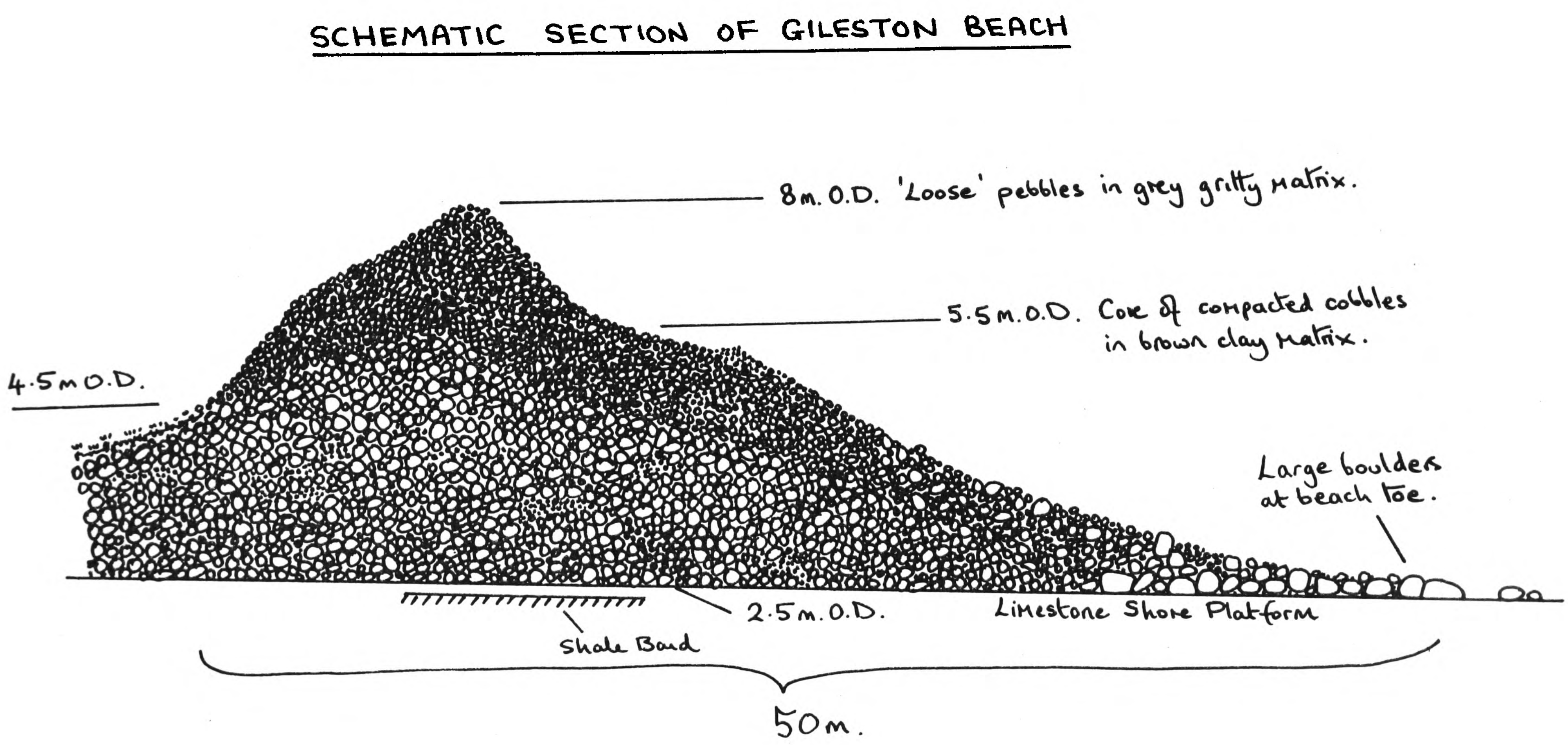


FIGURE 2.3 SCHEMATIC DIAGRAM OF WWA TRENCH THROUGH GILESTON BEACH

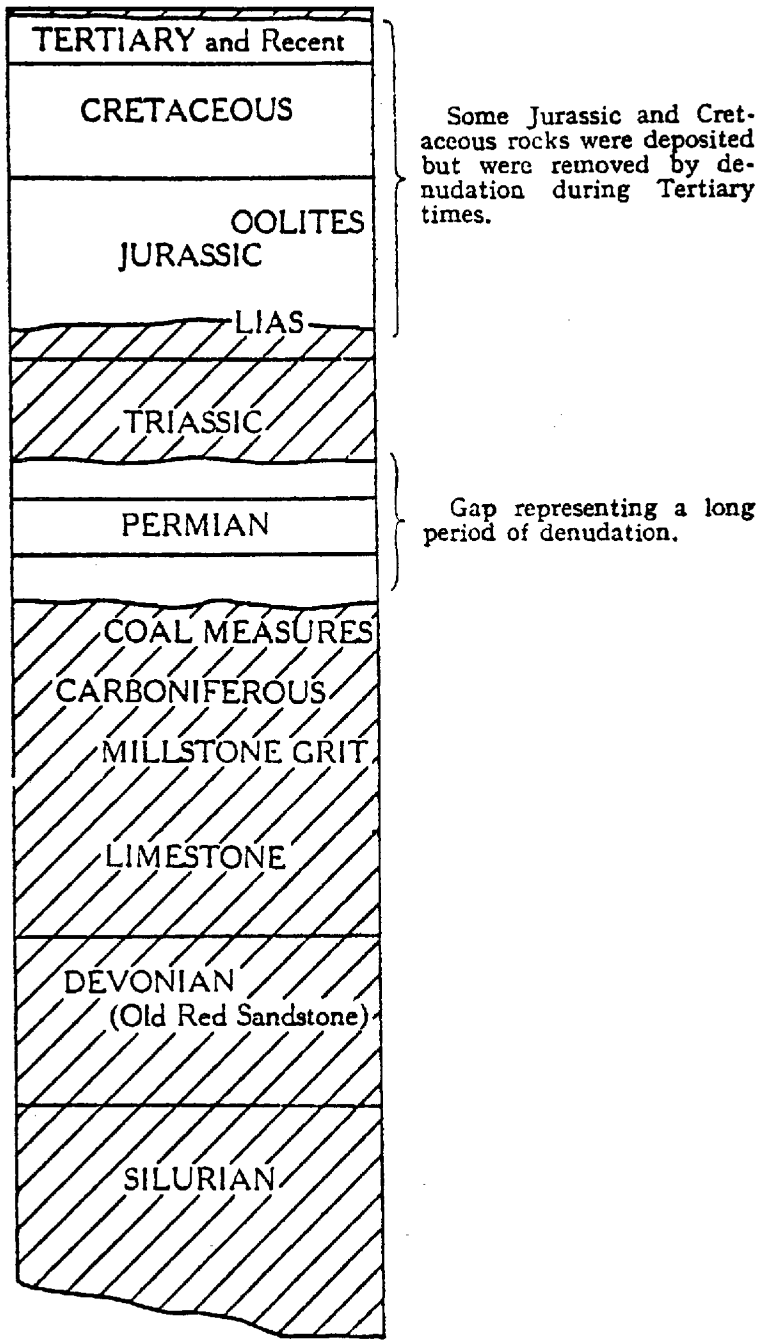


FIGURE 19.—TABLE OF STRATA, SHOWING GAPS IN THE ROCK SEQUENCE IN SOUTH WALES

FIGURE 2.4 Reproduced from NORTH, F.J. "The Evolution of the Bristol Channel Region", Nat. Museum of Wales, Univ. Wales Press, 103pp

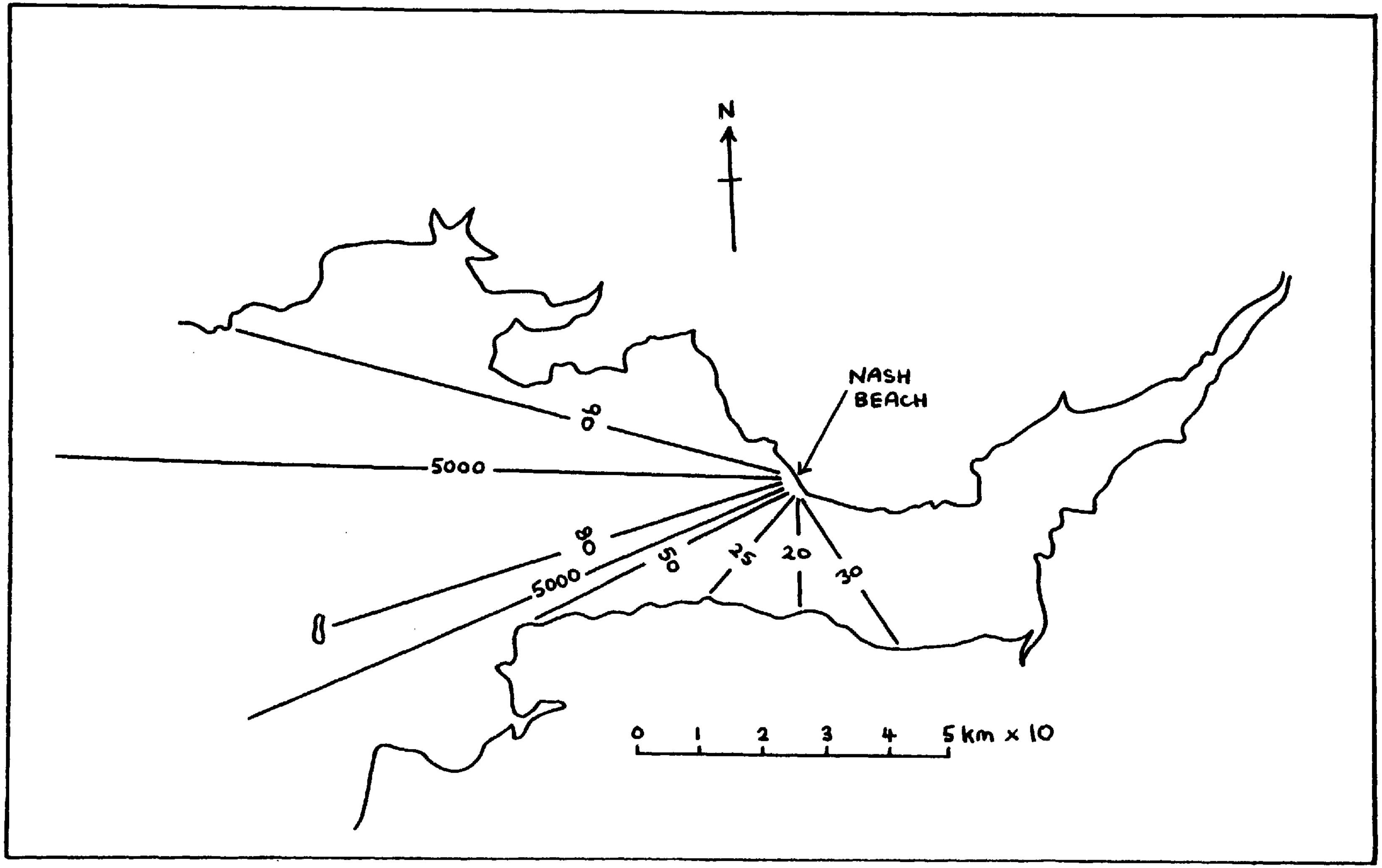


FIGURE 2.5 <u>FETCH DISTANCES FOR NASH BEACH</u>

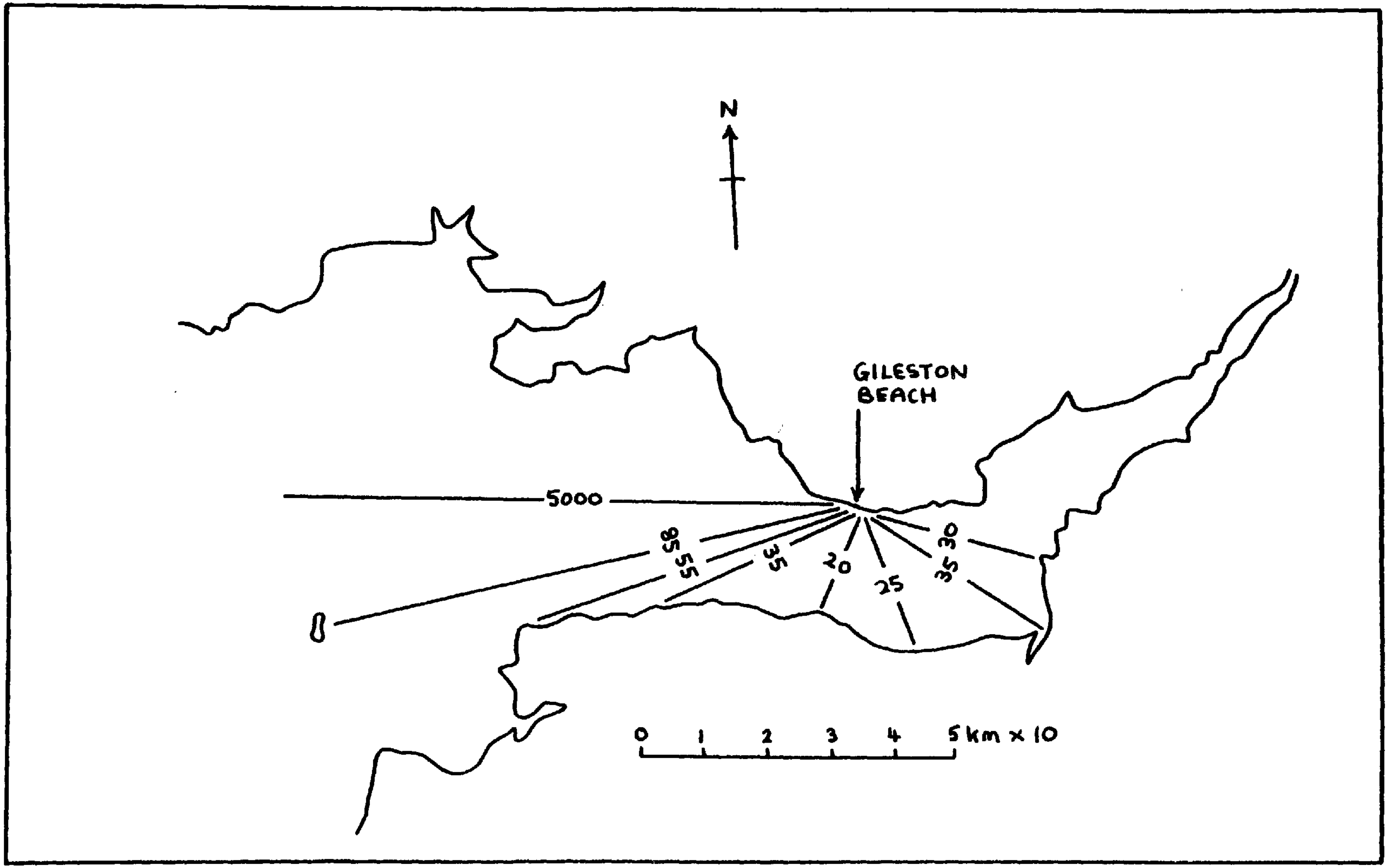


FIGURE 2.6 <u>FETCH DISTANCES FOR GILESTON BEACH</u>

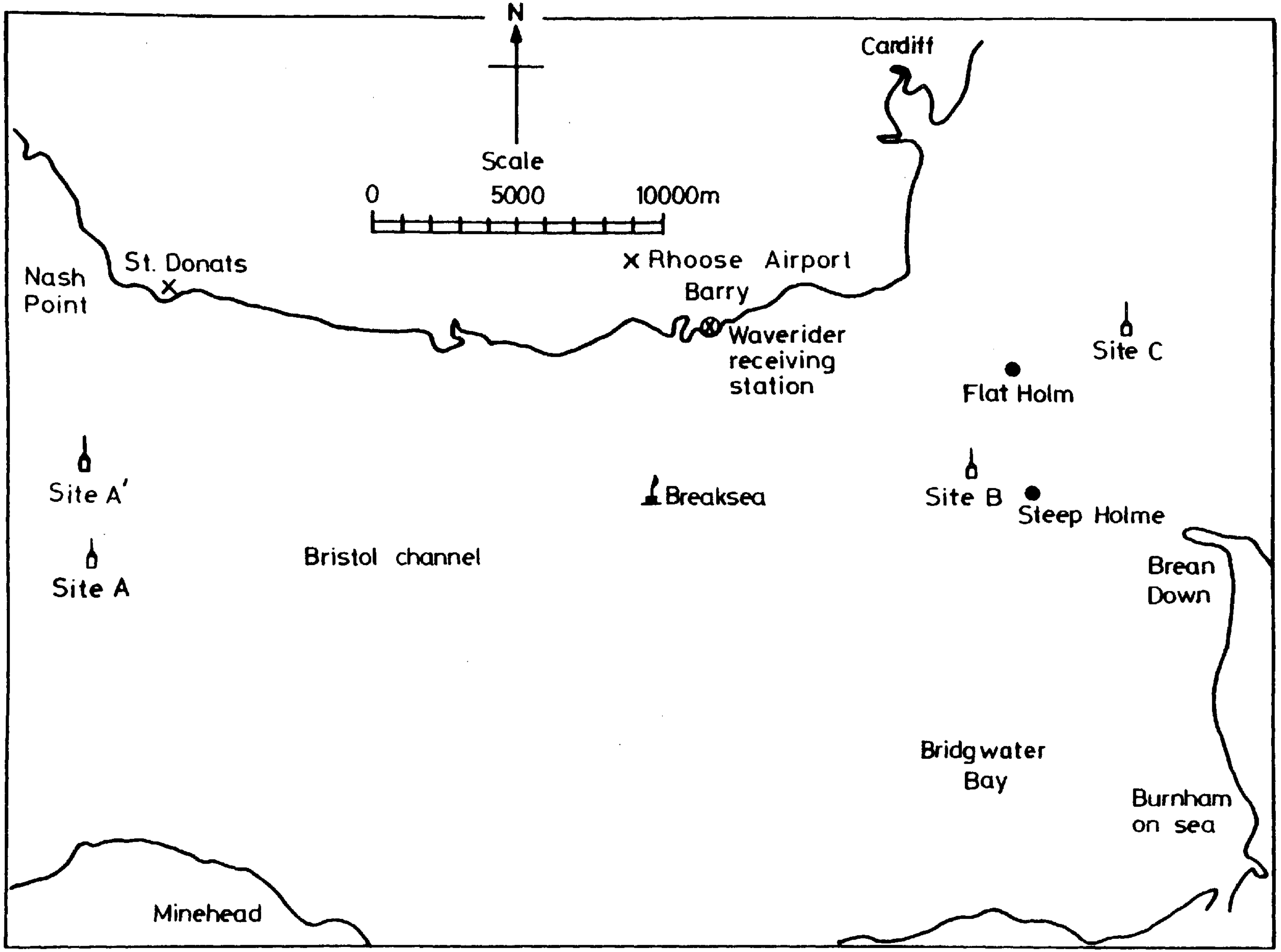
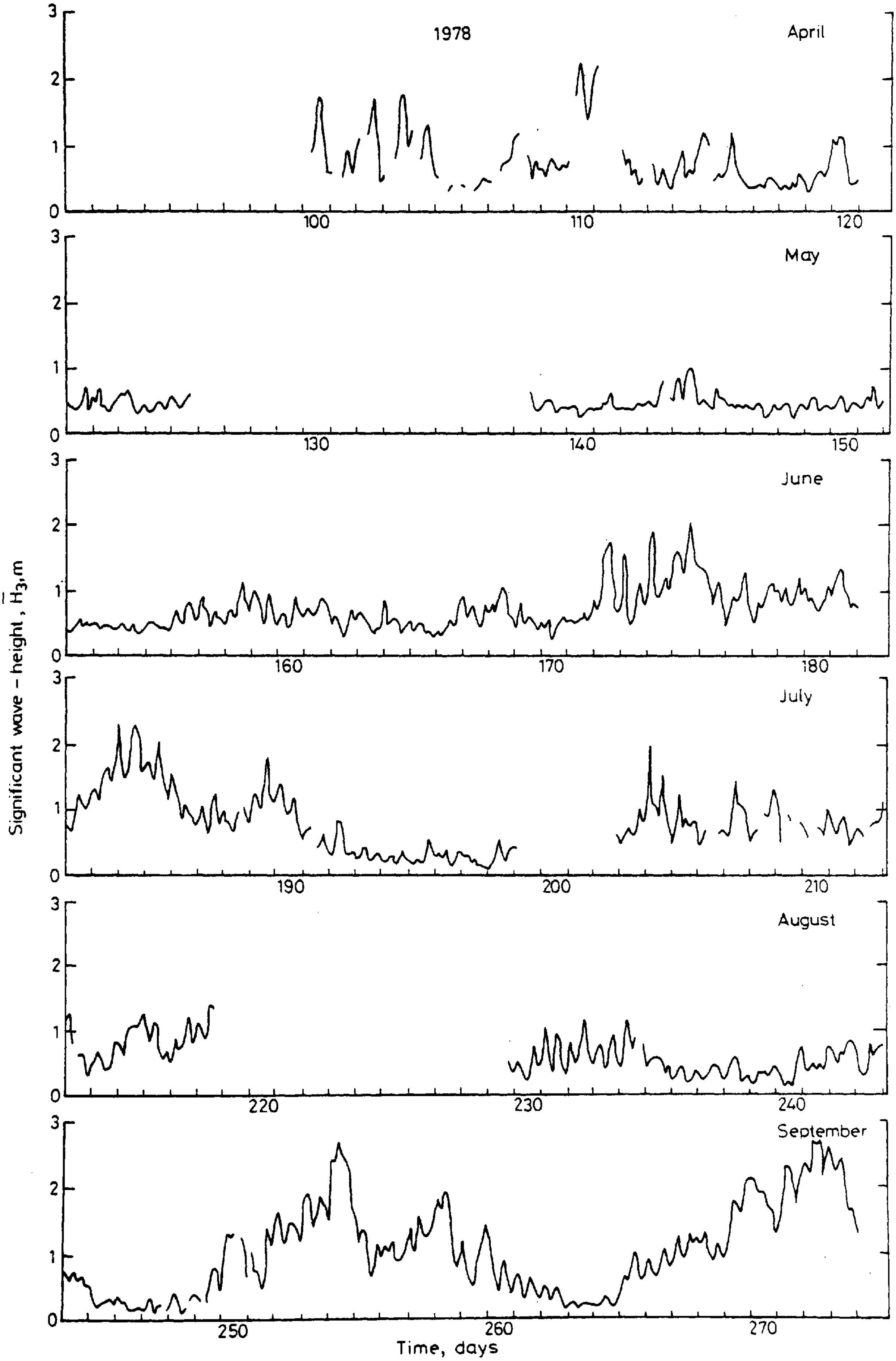


FIGURE 2.7 LOCATION OF HRS SEVERN ESTUARY WAVE STUDY BUOYS A, B AND C.

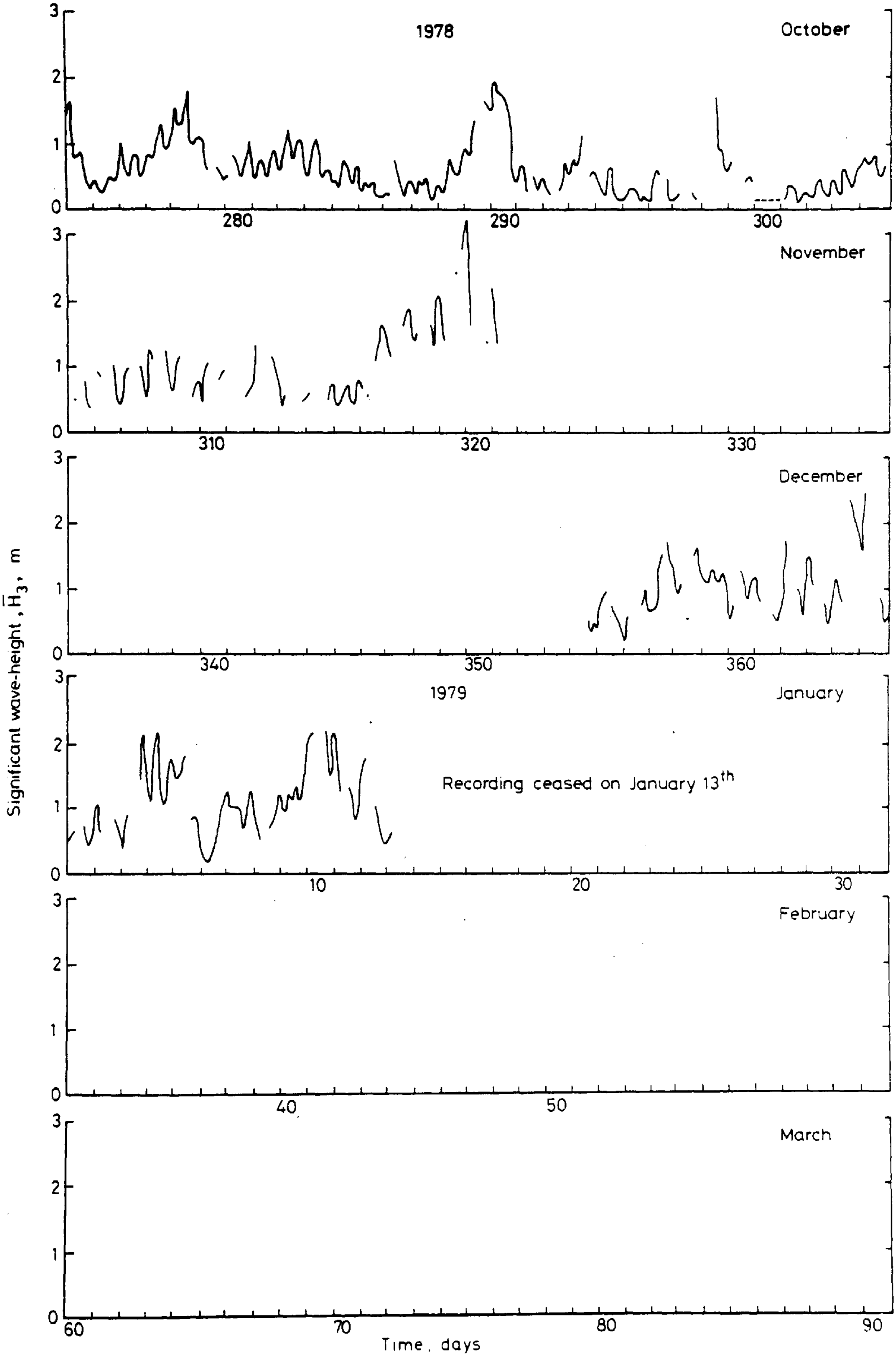
FIGURES 2.8 A-E, 2.9 A-F and 2.10 A-E

These show the analogue records of $\bar{H}_3$ (the significant wave height, or the mean of the highest third of waves) for wave-rider buoys A, B and C. This information is taken from the Hydraulics Research Station's "Severn Estuary Wave Climate Study" published in DoE Reports EX 887, EX 914, EX 933 and EX 994.



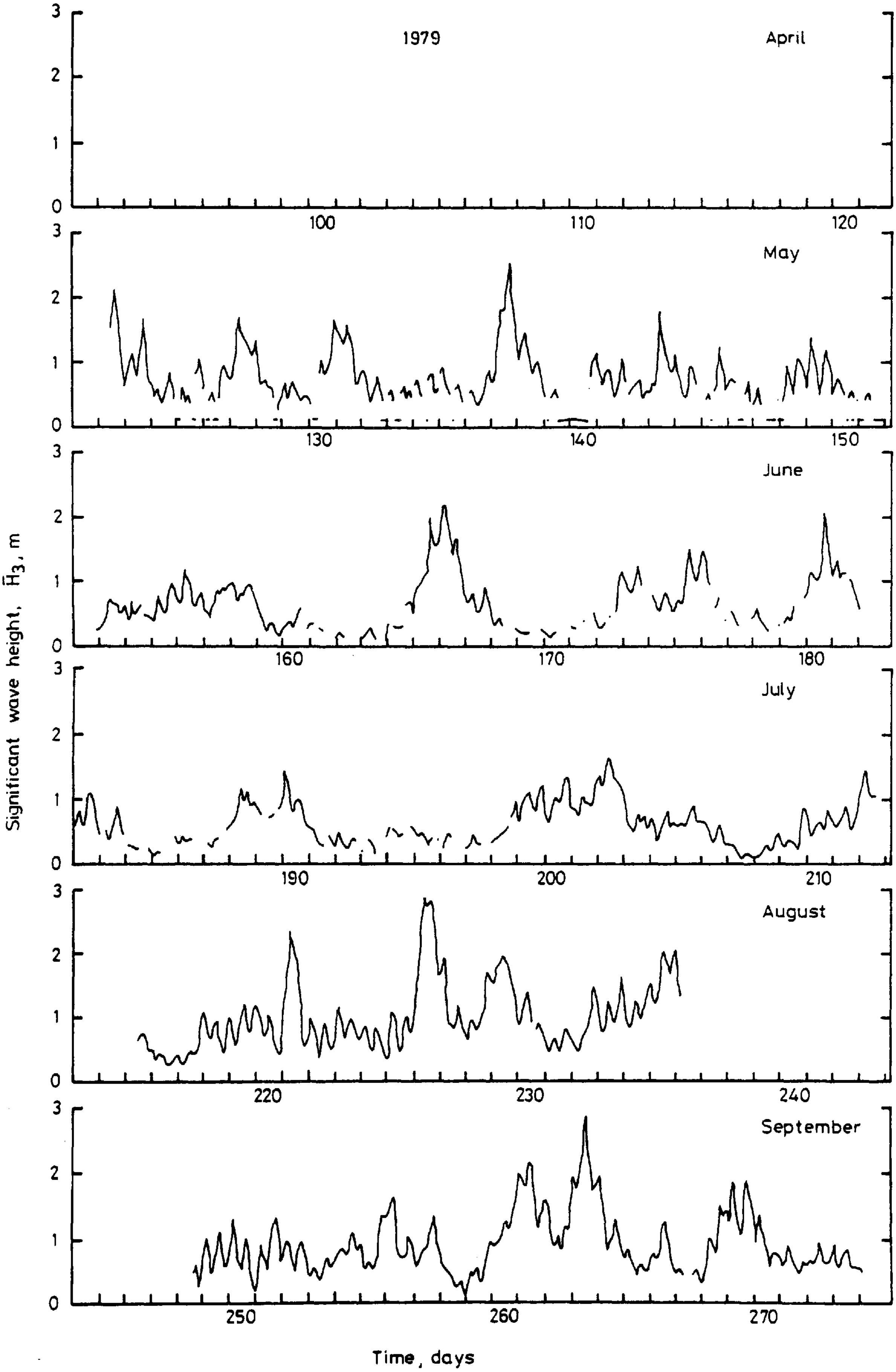
Variation of $\bar{H}_3$ with time - site A

FIGURE 2.8 A



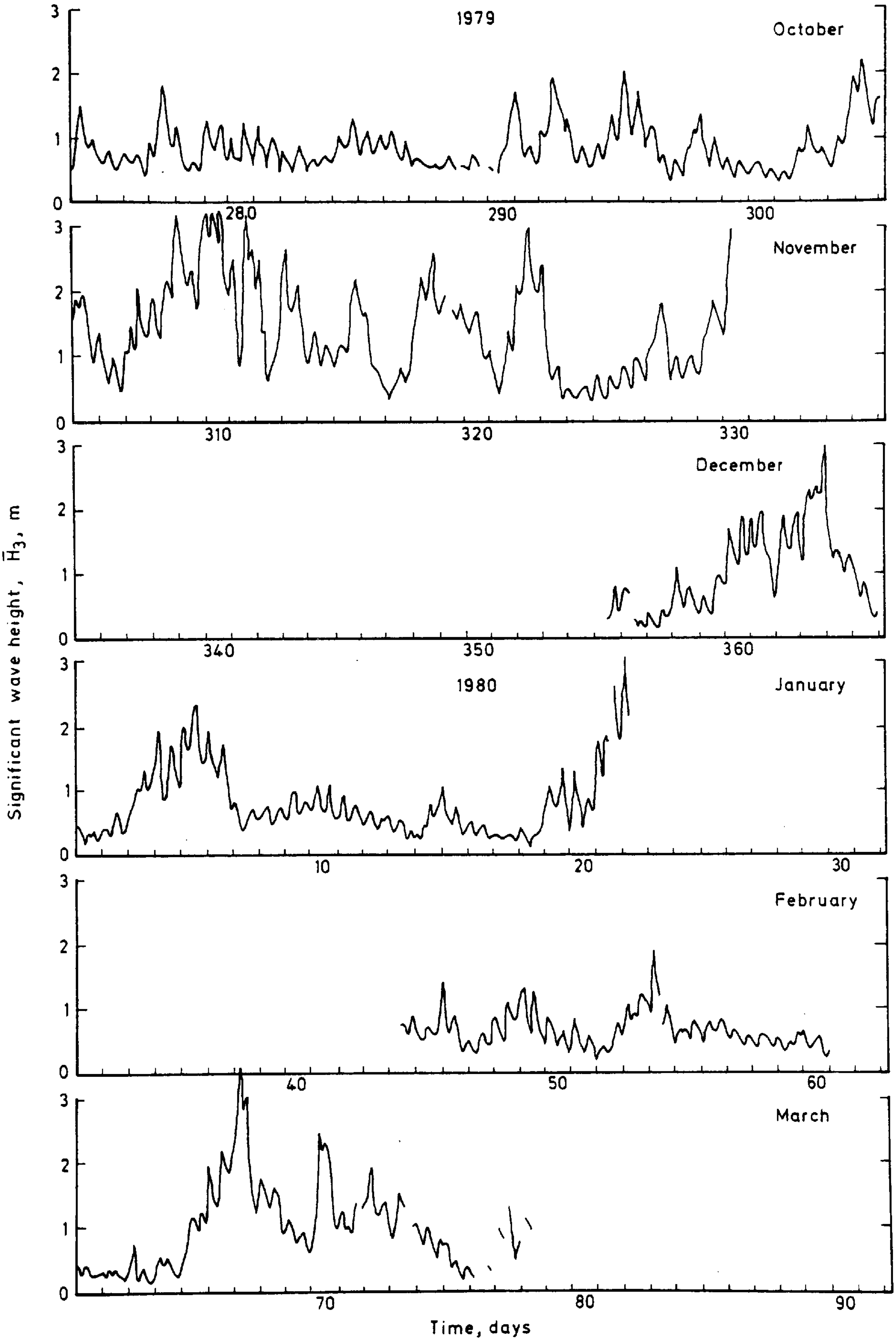
Variation of $\bar{H}_3$ with time – site A

FIGURE 2.8 B



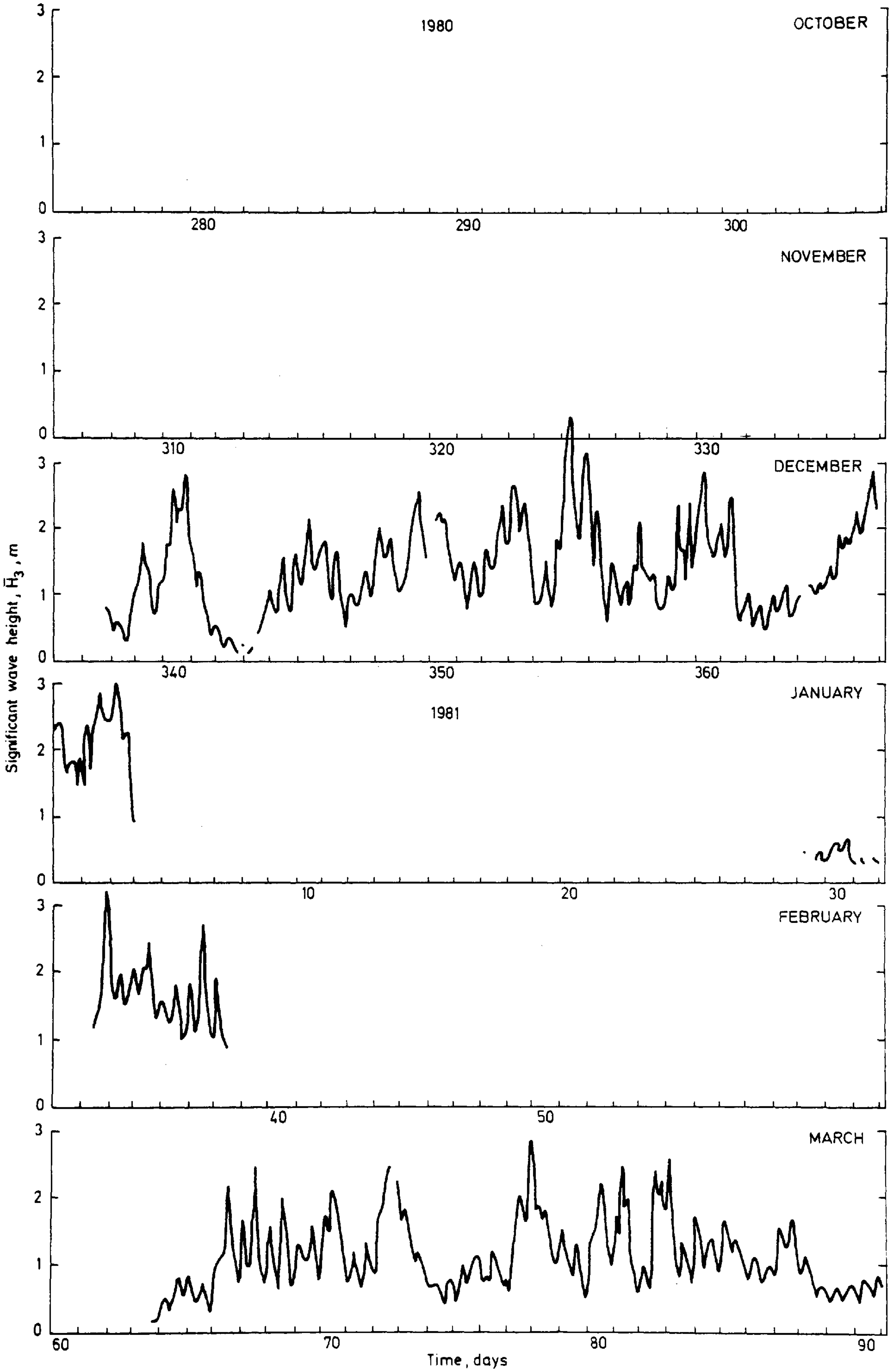
Variation of $\bar{H}_3$ with time - Site A

FIGURE 2.8 C



Variation of $\overline{H}_3$ with time – Site A

FIGURE 2.8 D



Variation of $\bar{H}_3$ with time - Site A

FIGURE 2.8 E

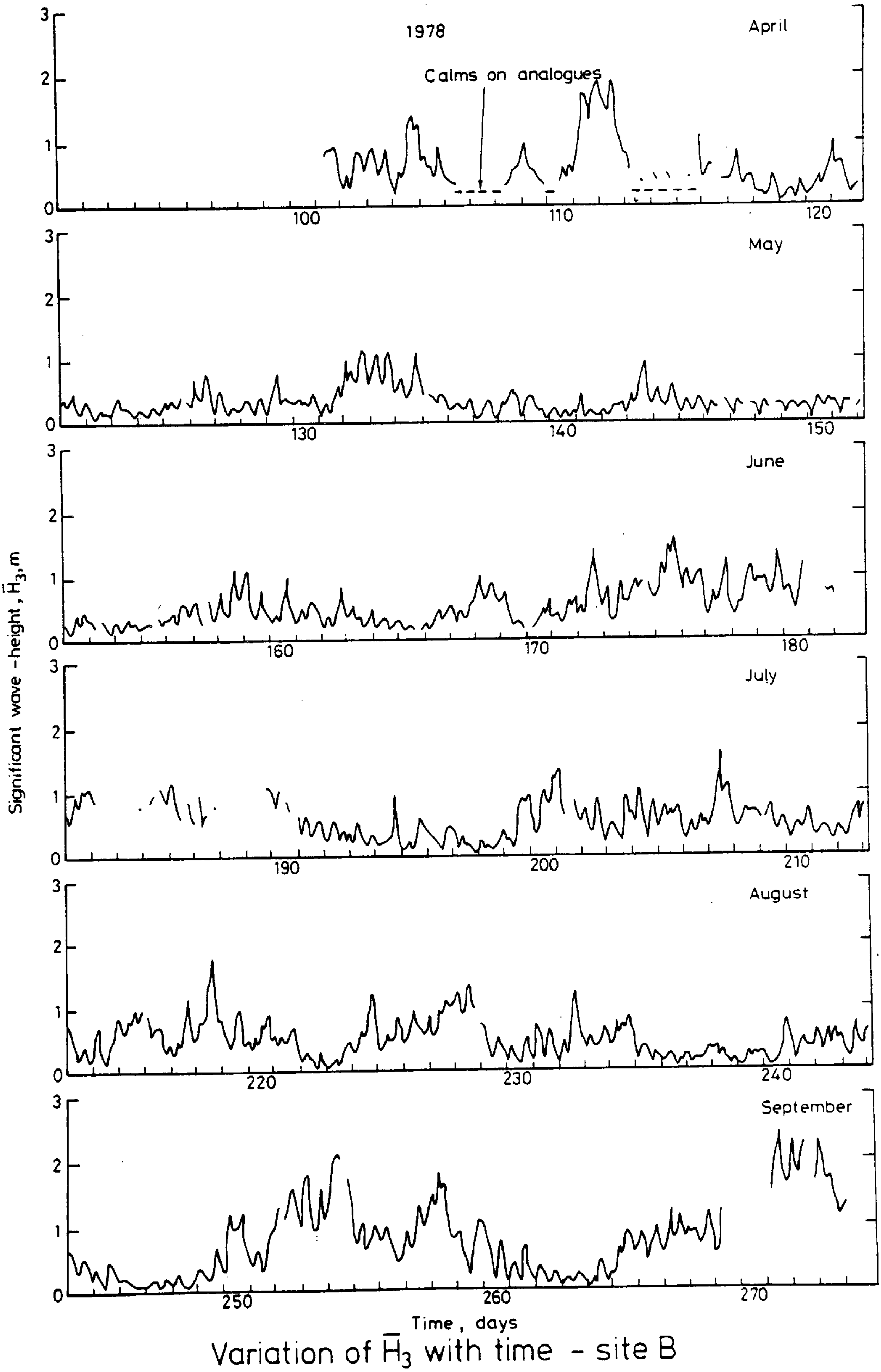
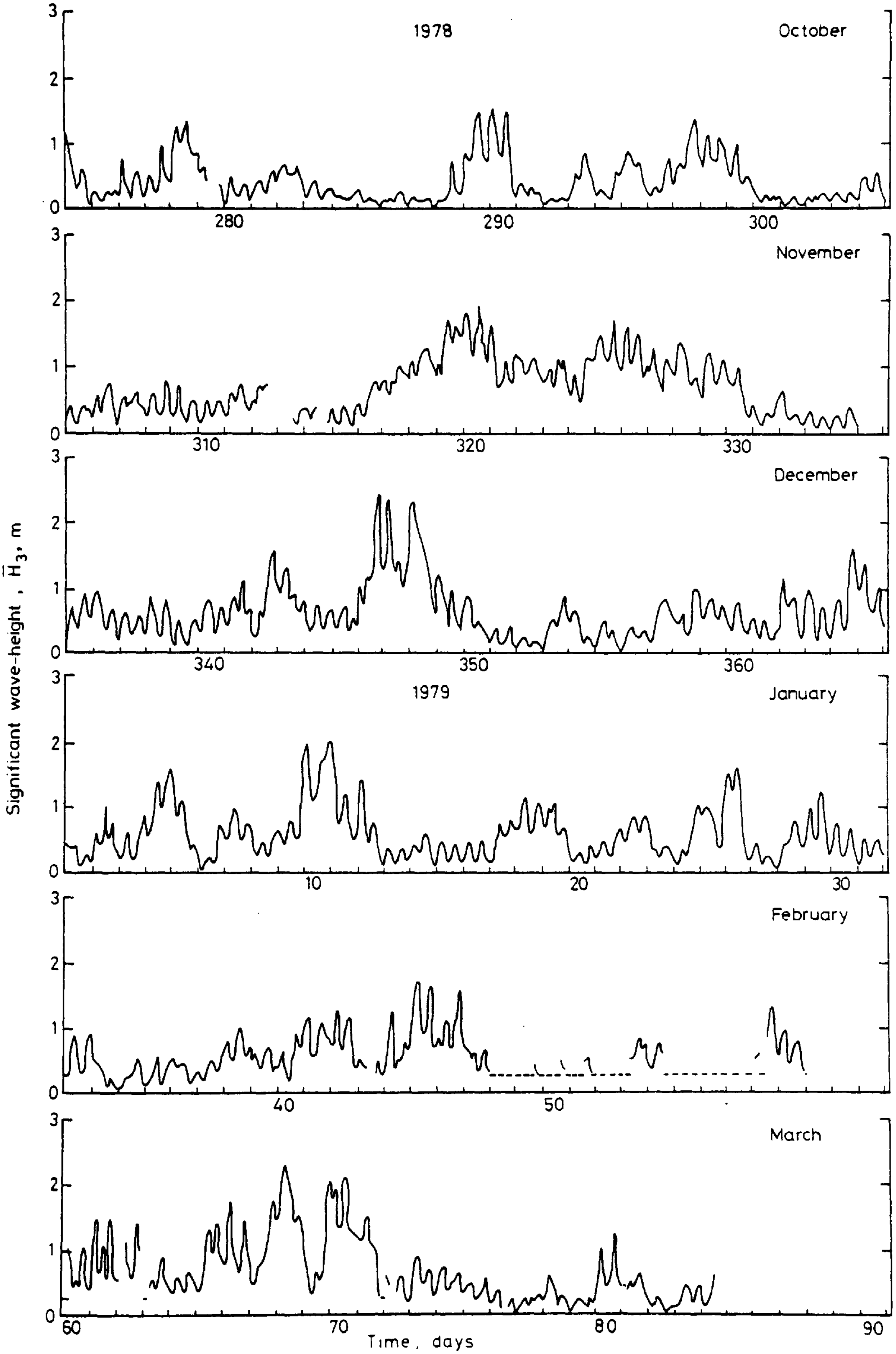
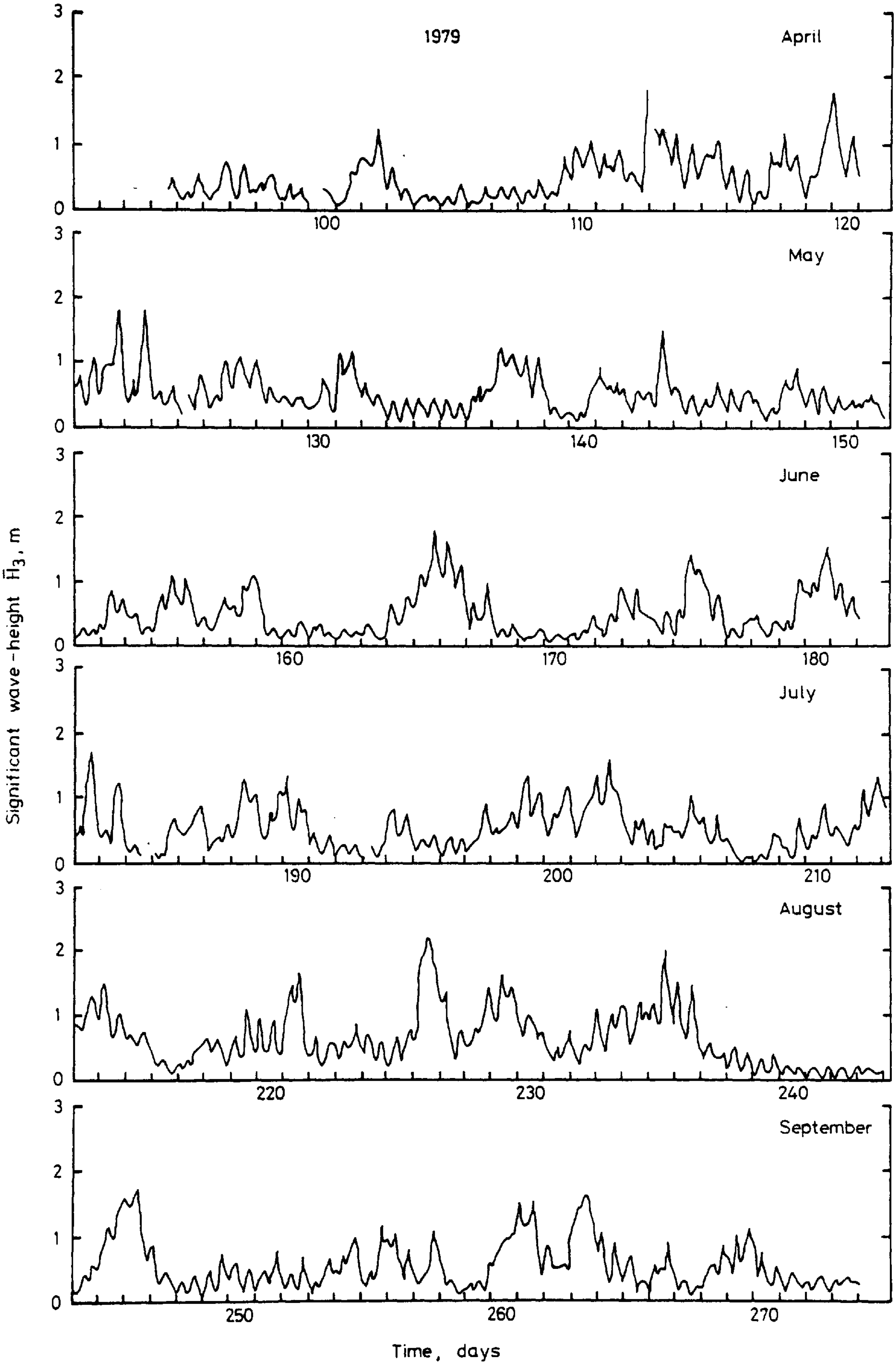

1978
April
Calms on analogues
May
June
July
August
September
Significant wave - height, $\bar{H}_3$, m
Time, days
Variation of $\bar{H}_3$ with time - site B

FIGURE 2.9 A



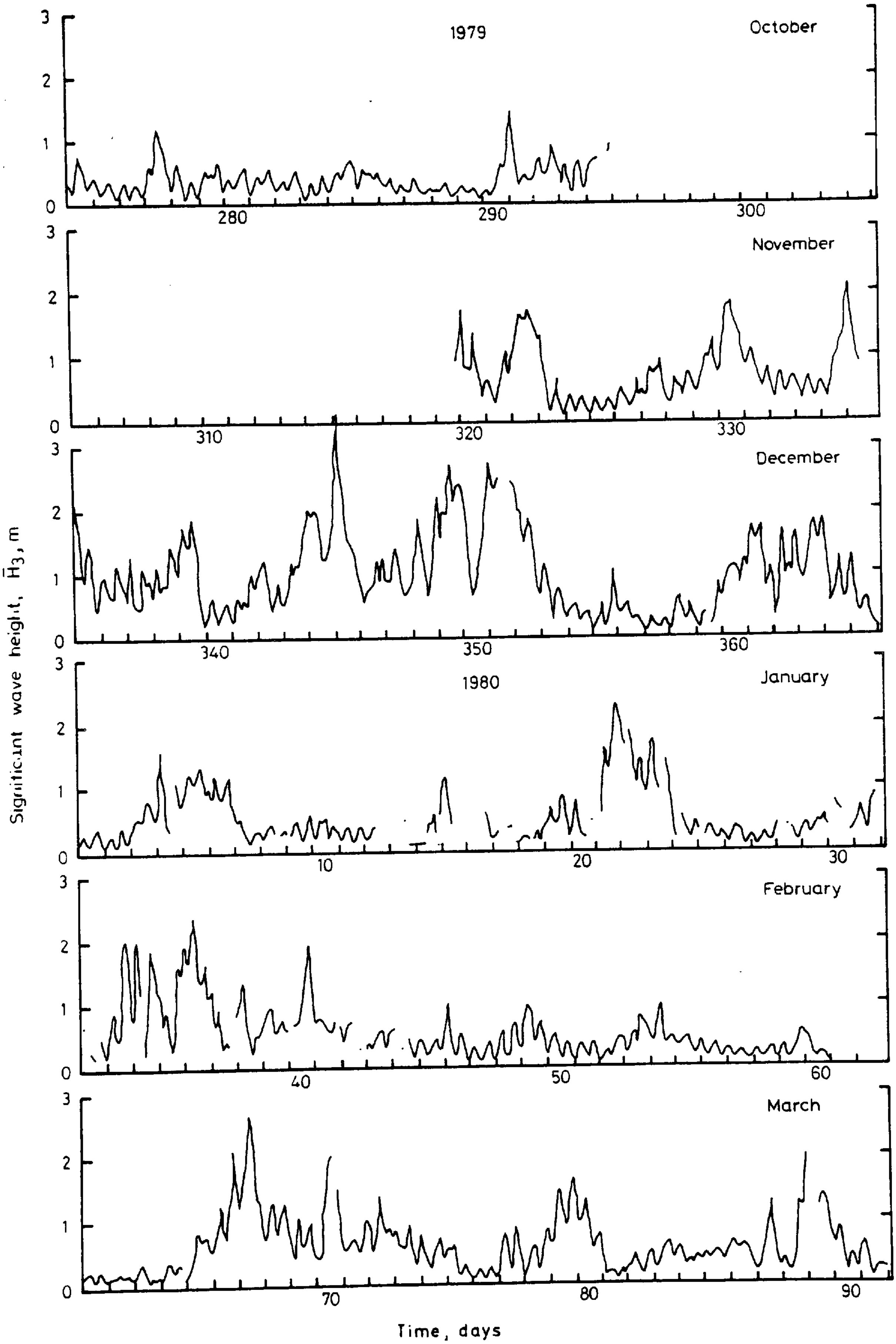
Variation of $\bar{H}_3$ with time — site B

FIGURE 2.9 B



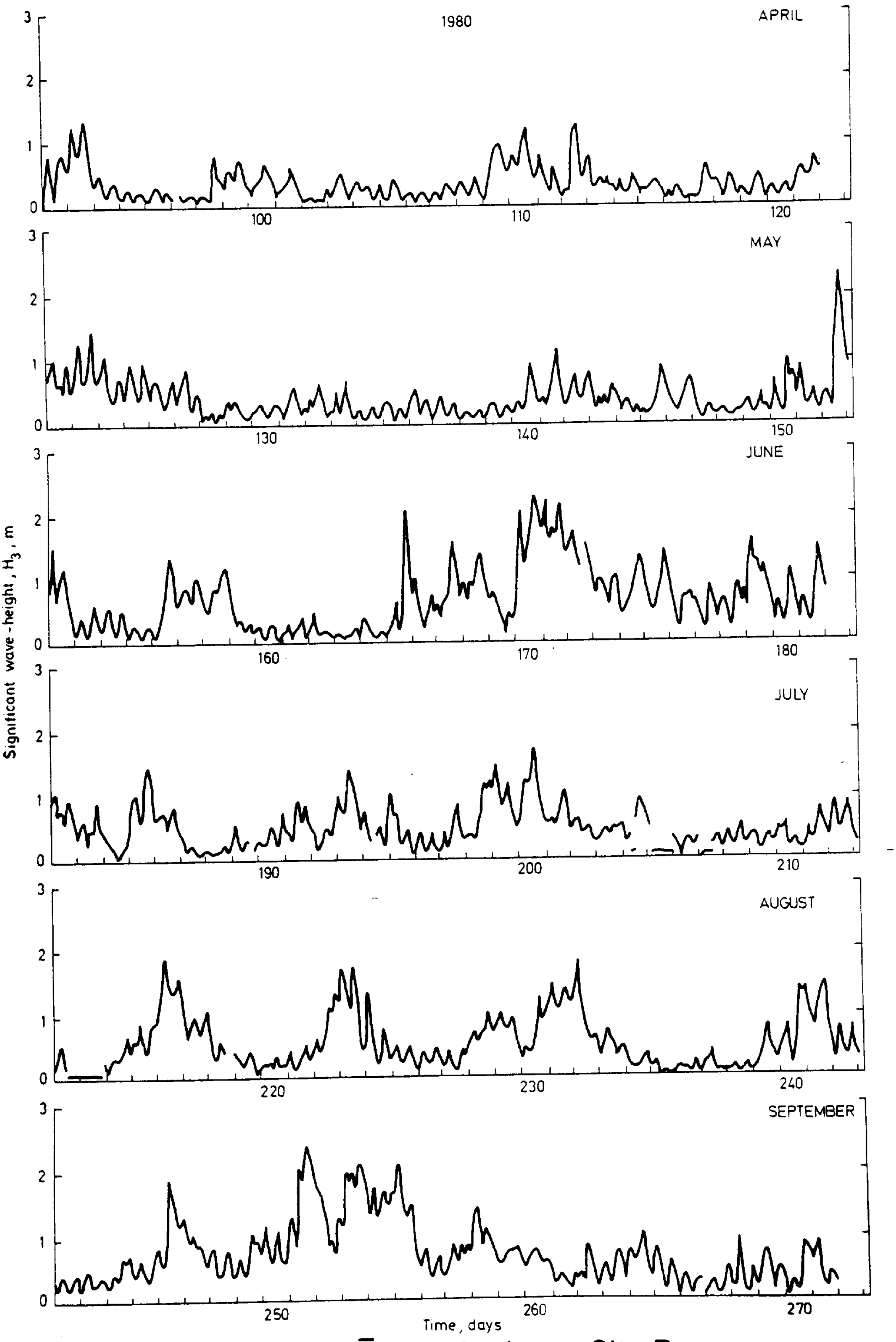
Variation of $\bar{H}_3$ with time - Site B

FIGURE 2.9 C



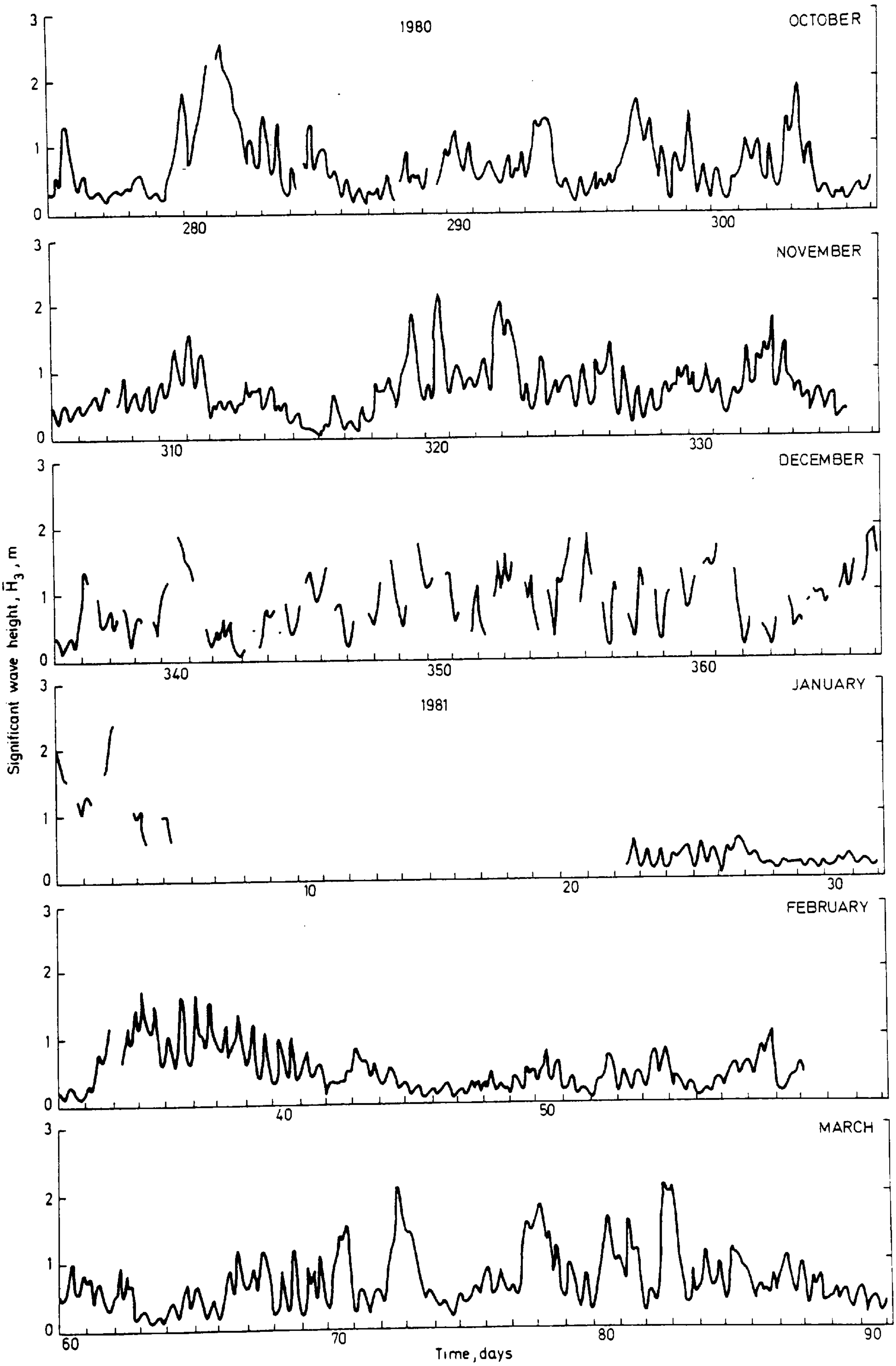
Variation of $\bar{H}_3$ with time - Site B

FIGURE 2.9 D



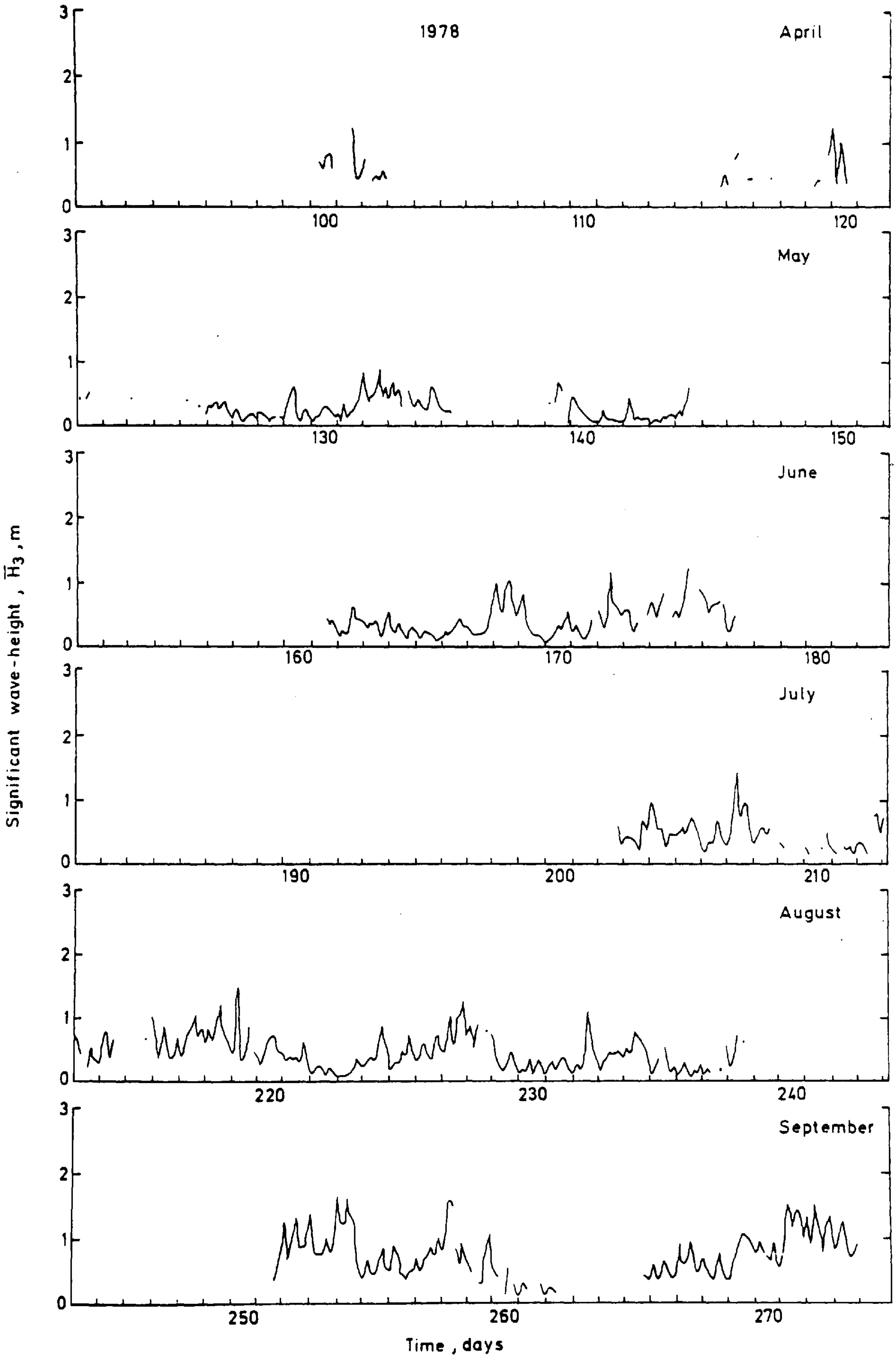
Variation of $\bar{H}_3$ with time - Site B

FIGURE 2.9 E



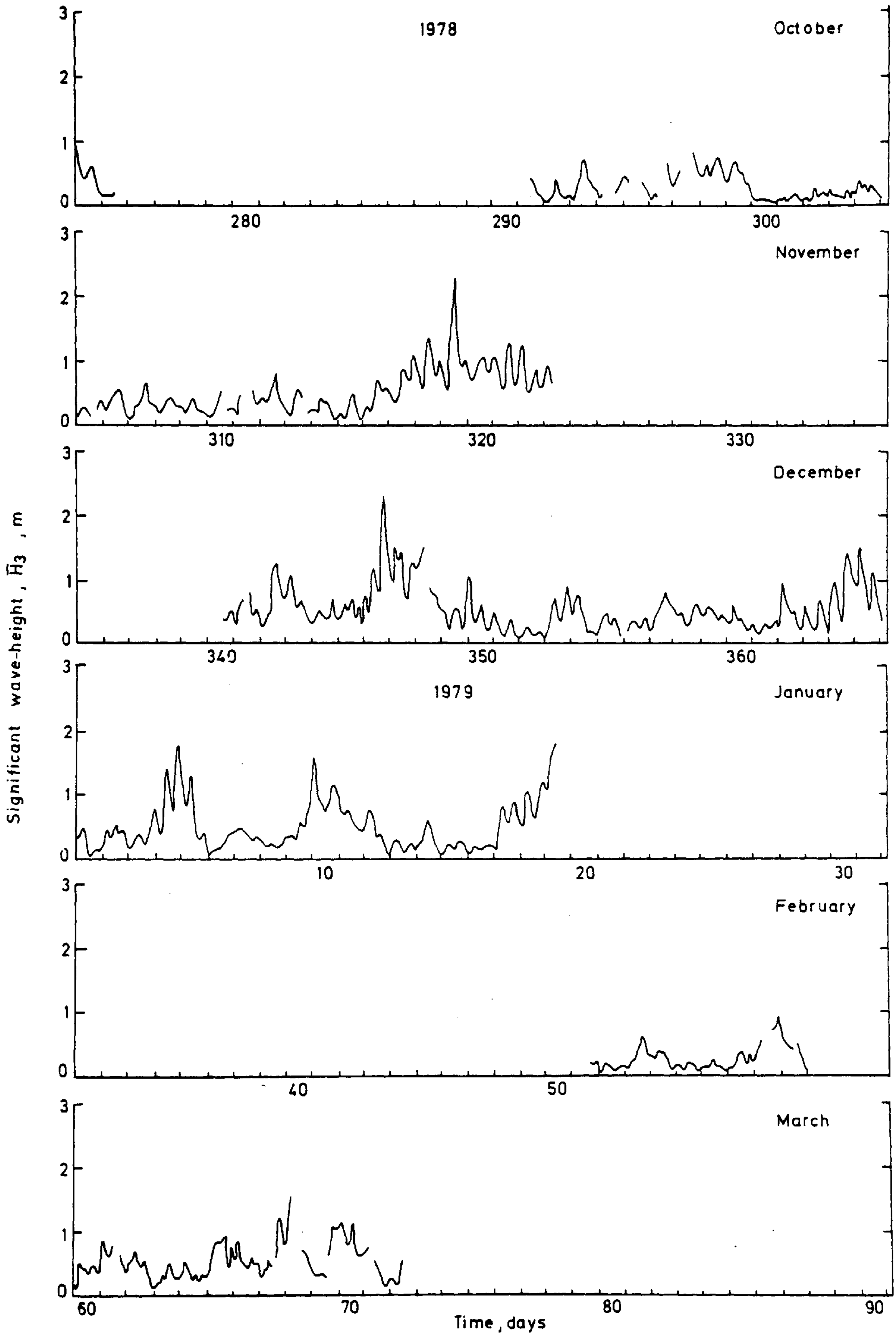
Variation of $\bar{H}_3$ with time - Site B

FIGURE 2.9 F



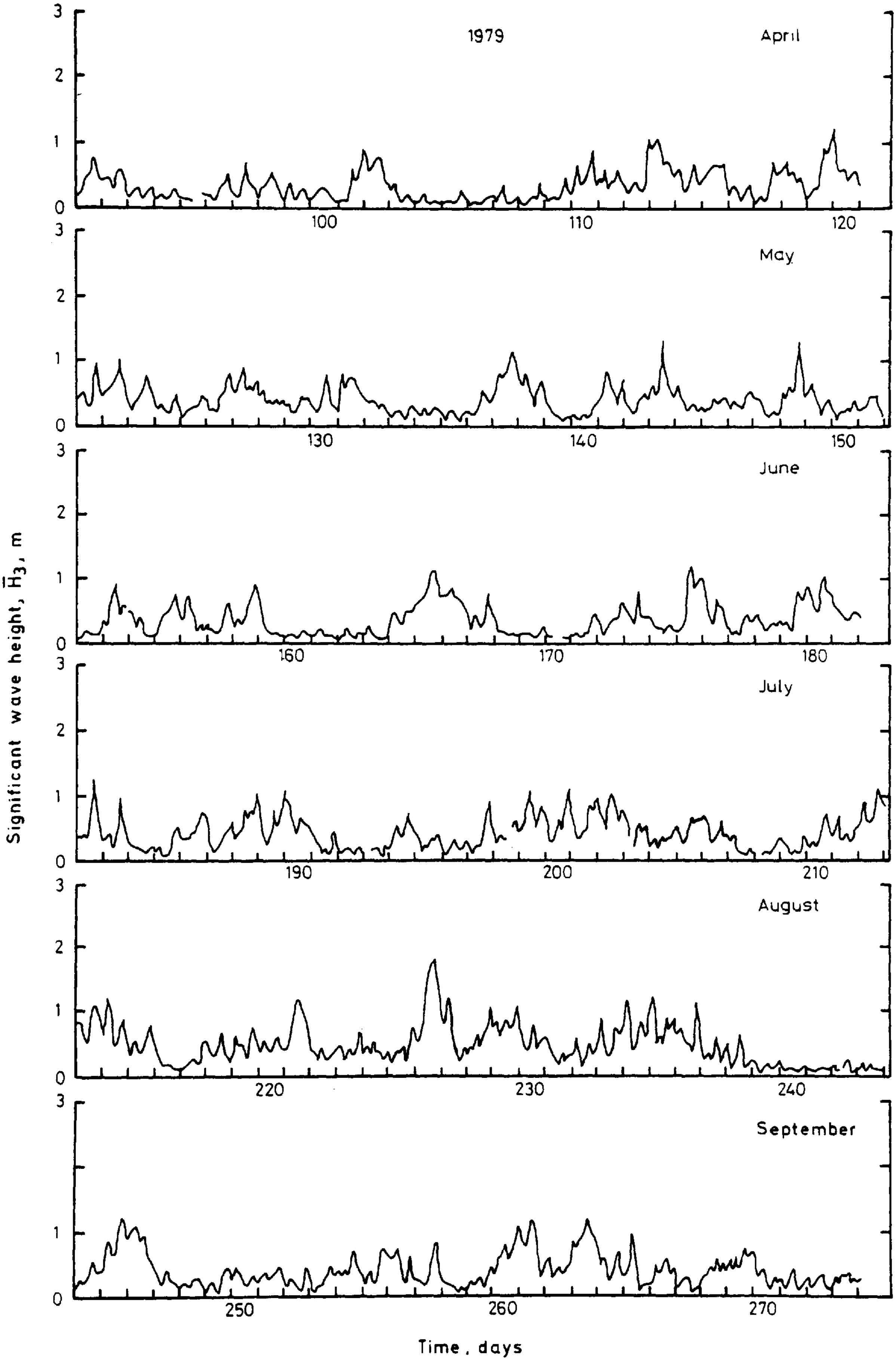
Variation of $\overline{H}_3$ with time - site C

FIGURE 2.10 A



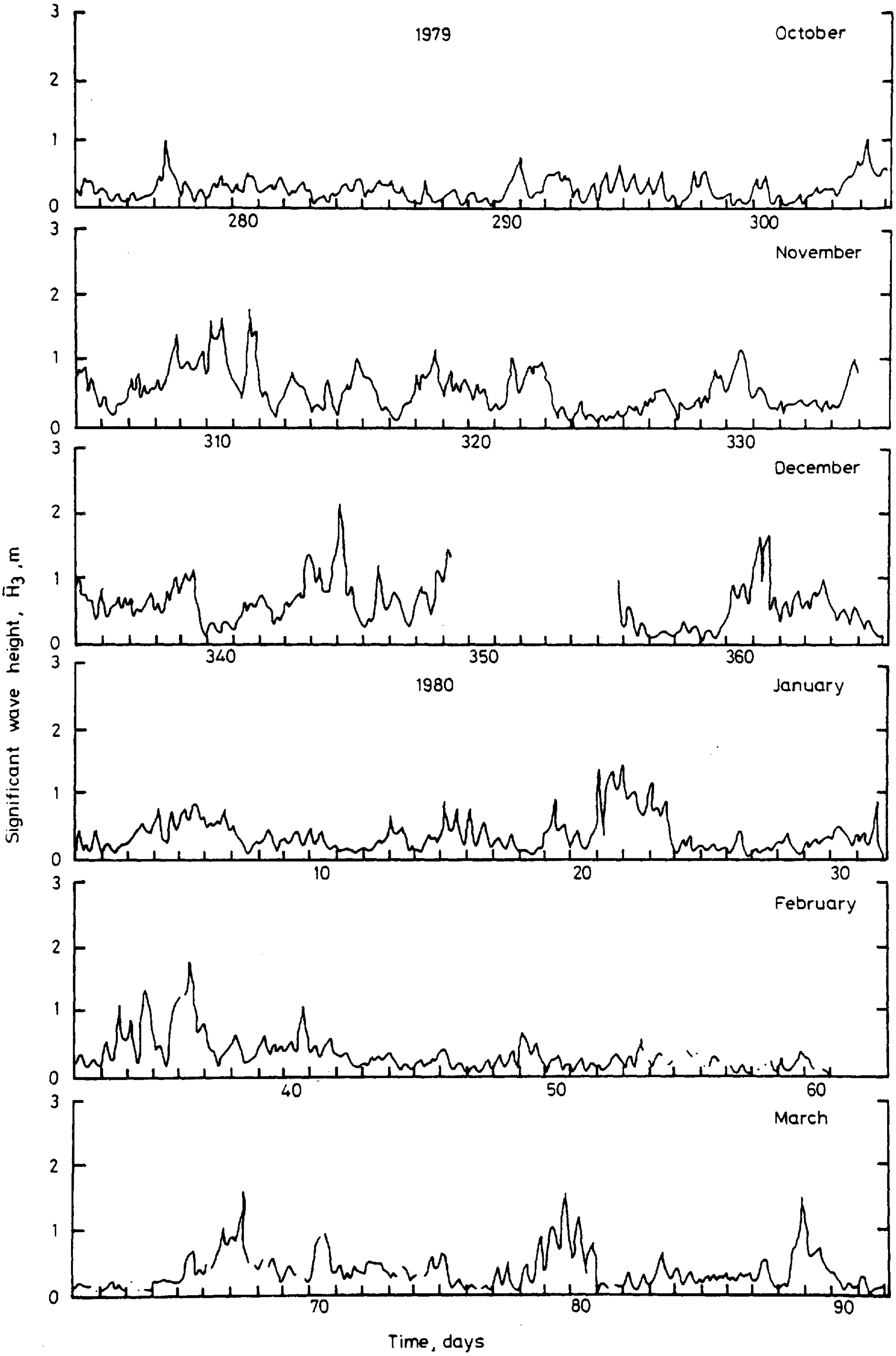
Variation of $\overline{H}_3$ with time - site C

FIGURE 2.10 B



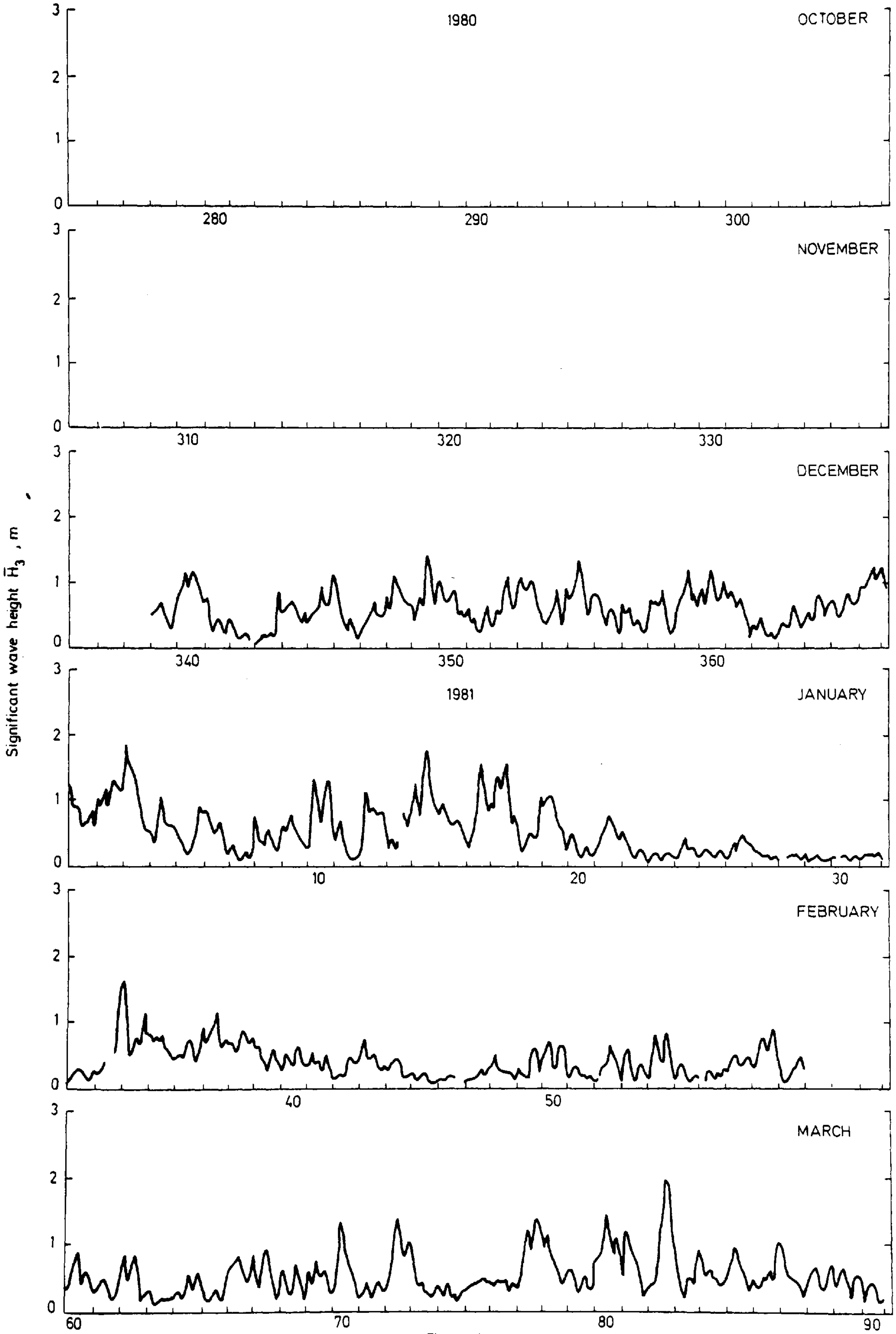
Variation of $\bar{H}_3$ with time - Site C

FIGURE 2.10 C



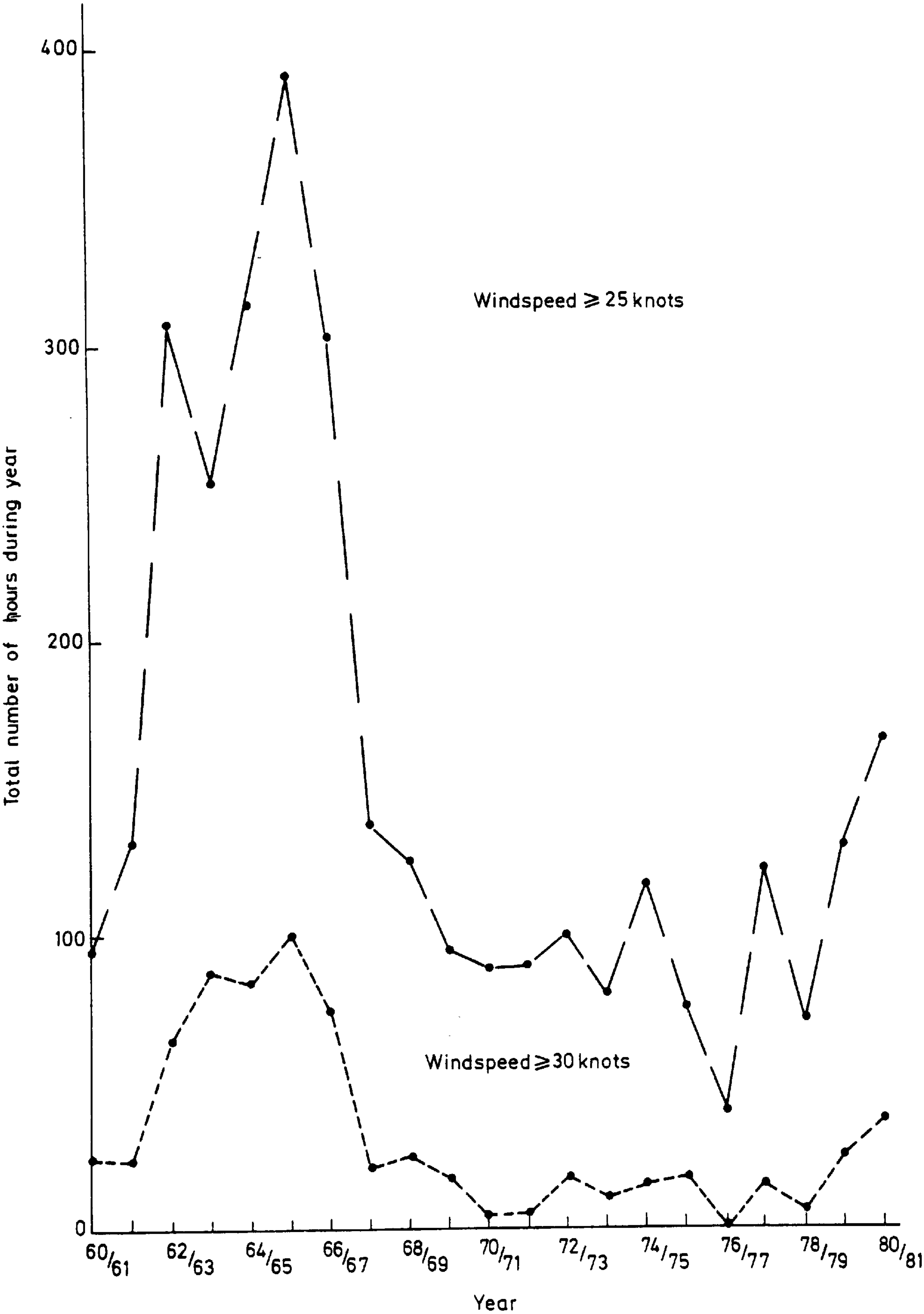
Variation of $\bar{H}_3$ with time - Site C

FIGURE 2.10 D



Variation of $\bar{H}_3$ with time - Site C

FIGURE 2.10 E



Yearly occurrence of windspeed ≥ 25 and 30 knots
1960 - 1981

FIGURE 2.11 (Reproduced from HRS Report EX 994)

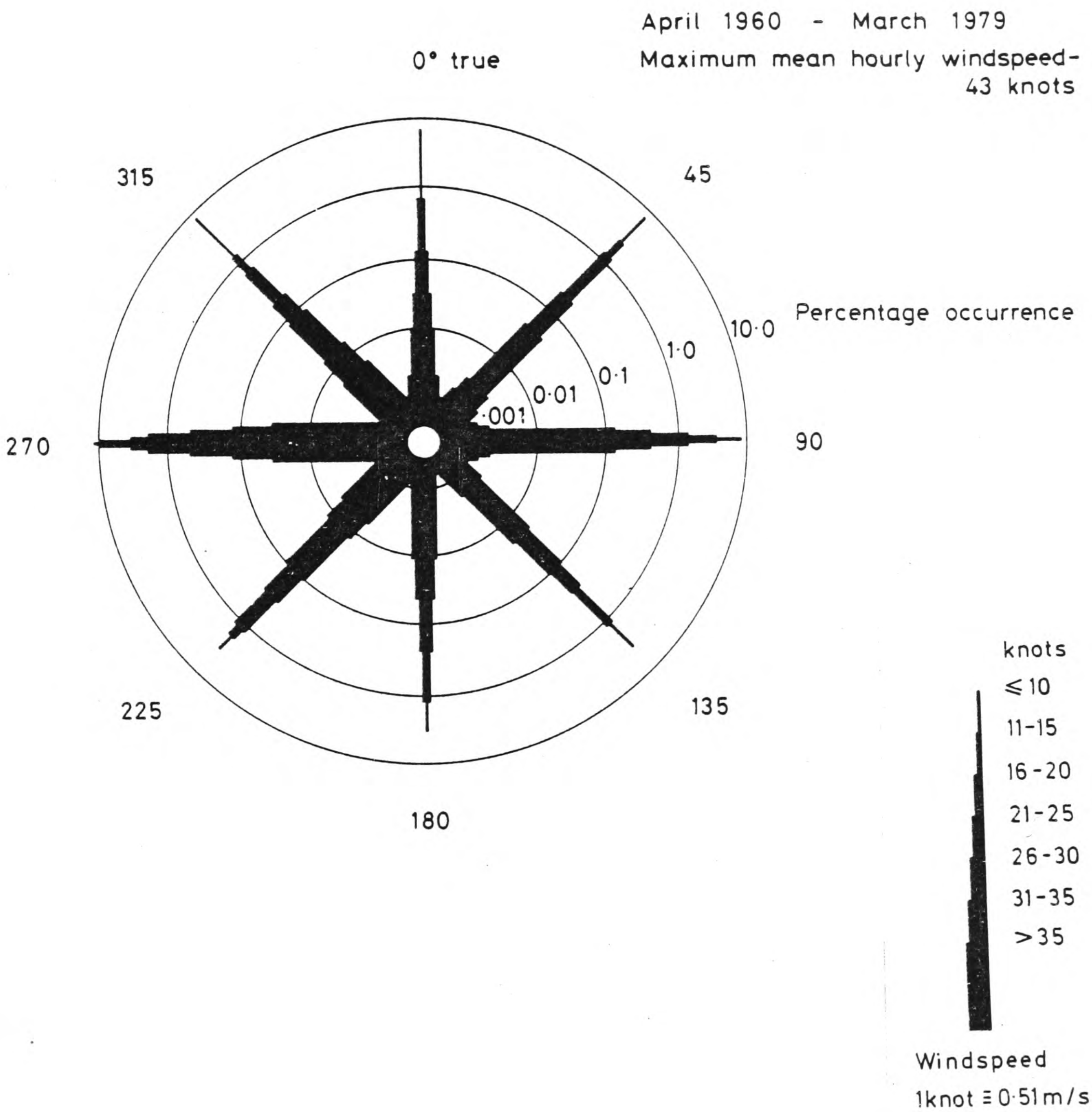


FIGURE 2.12 WIND ROSE FOR MEAN HOURLY WIND SPEEDS FOR CARDIFF, WALES' AIRPORT
(Reproduced from HRS Report EX 914)

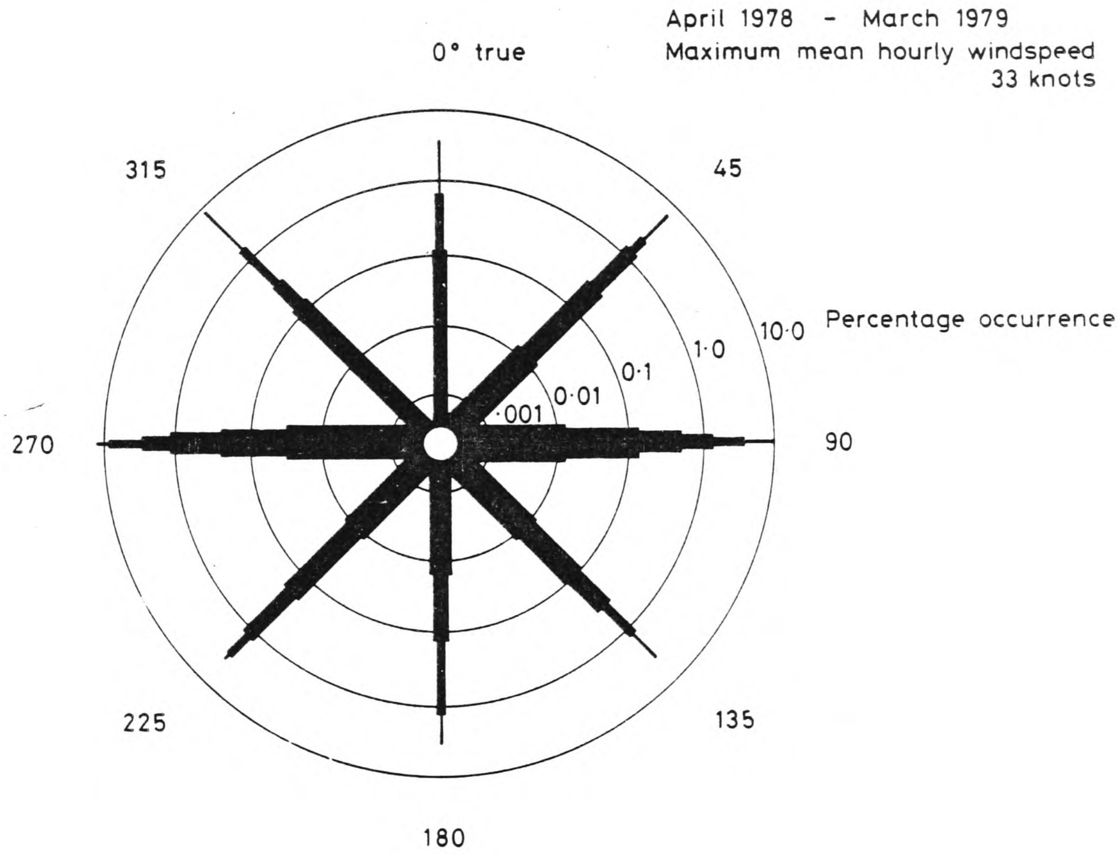


FIGURE 2.13 WIND ROSE FOR MEAN HOURLY WIND SPEED FOR CARDIFF, WALES' AIRPORT
(Reproduced from HRS Report EX 933)

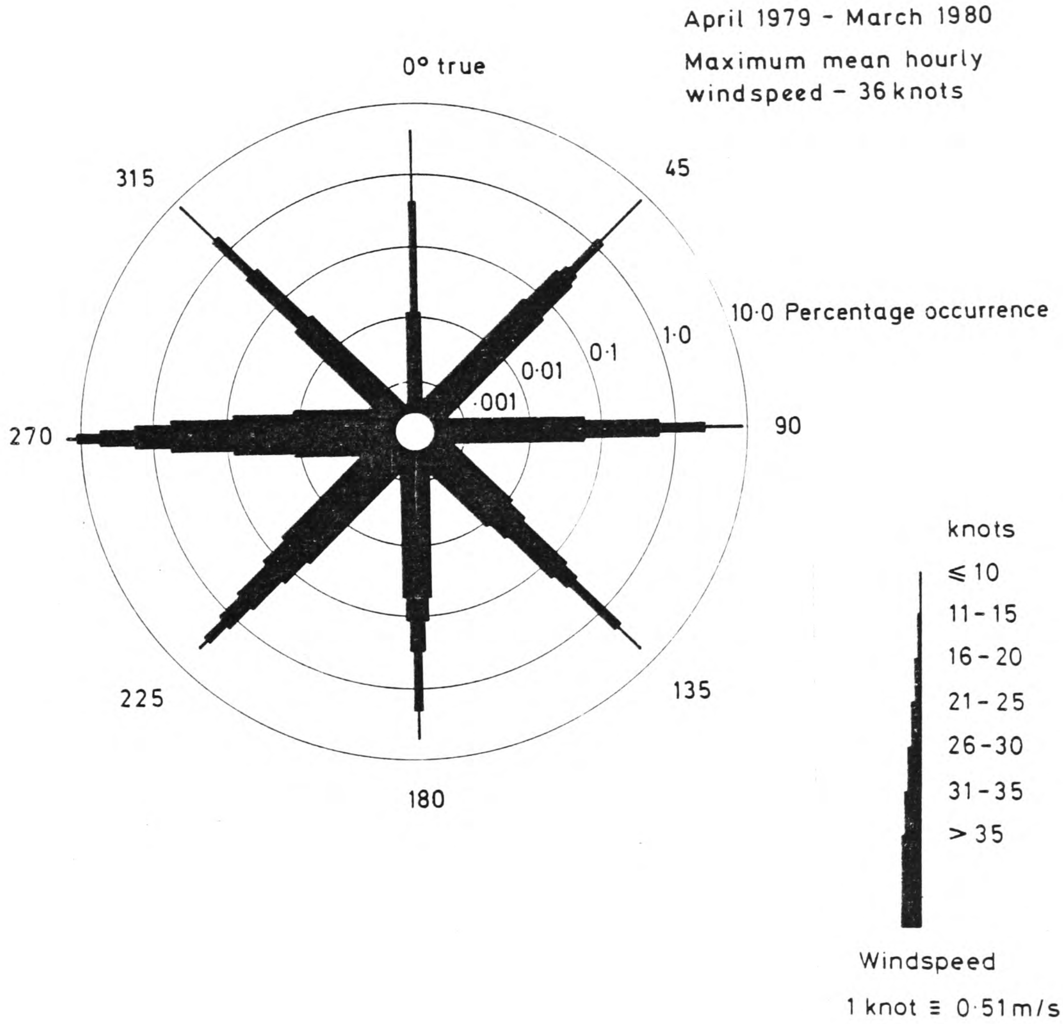
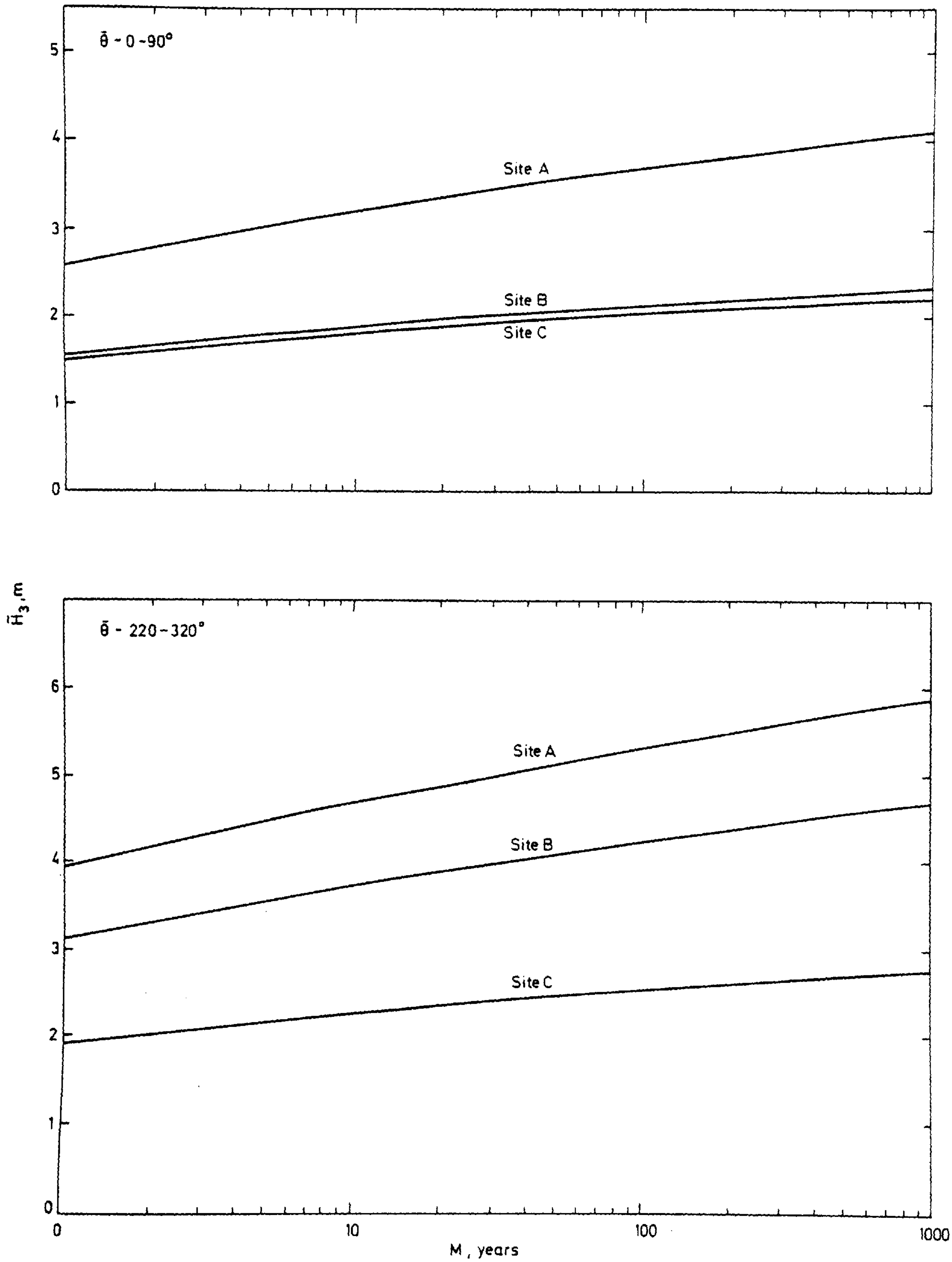
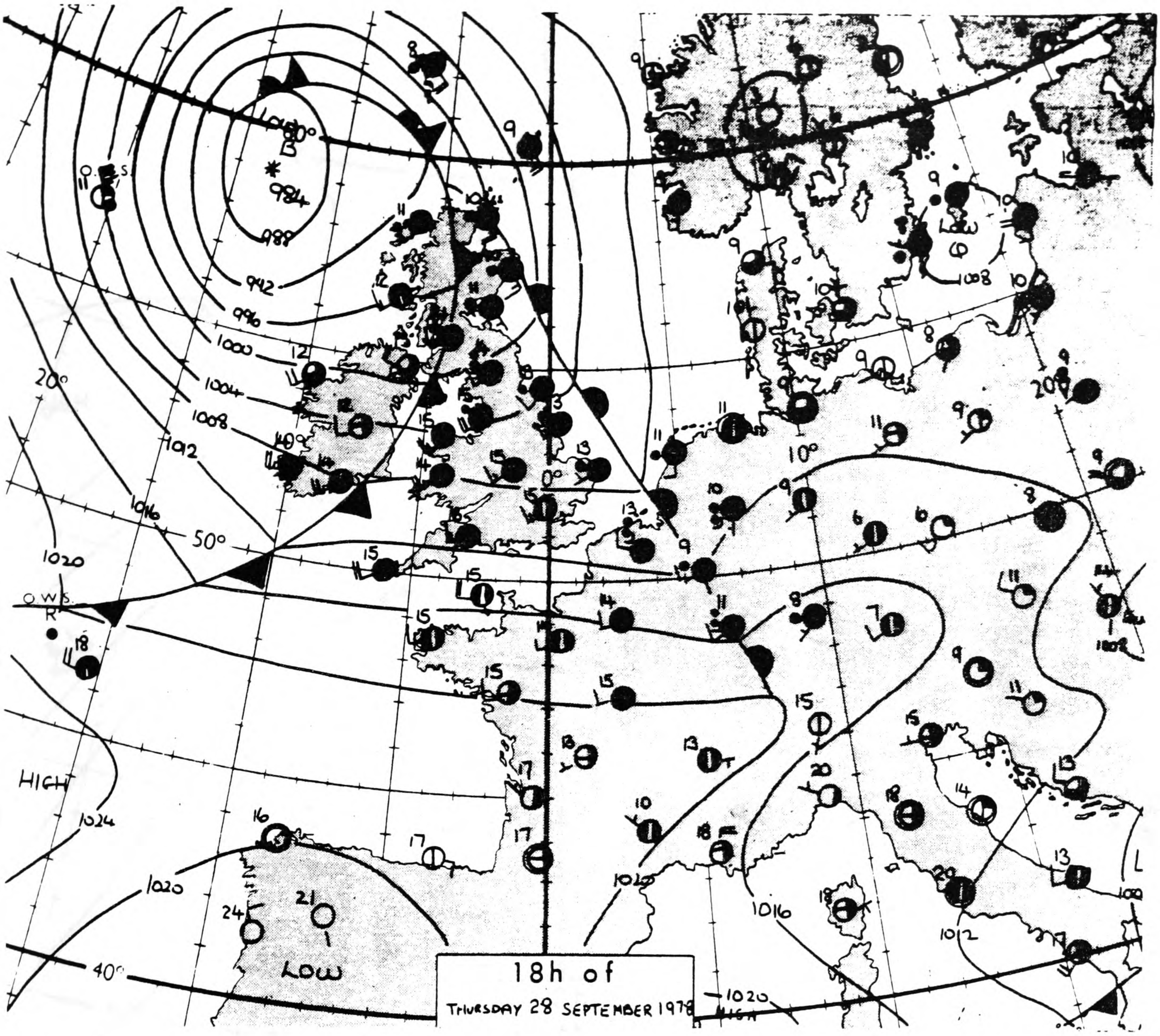


FIGURE 2.14 WIND ROSE FOR MEAN HOURLY WIND SPEED FOR CARDIFF, WALES' AIRPORT (Reproduced from HRS Report EX 933)



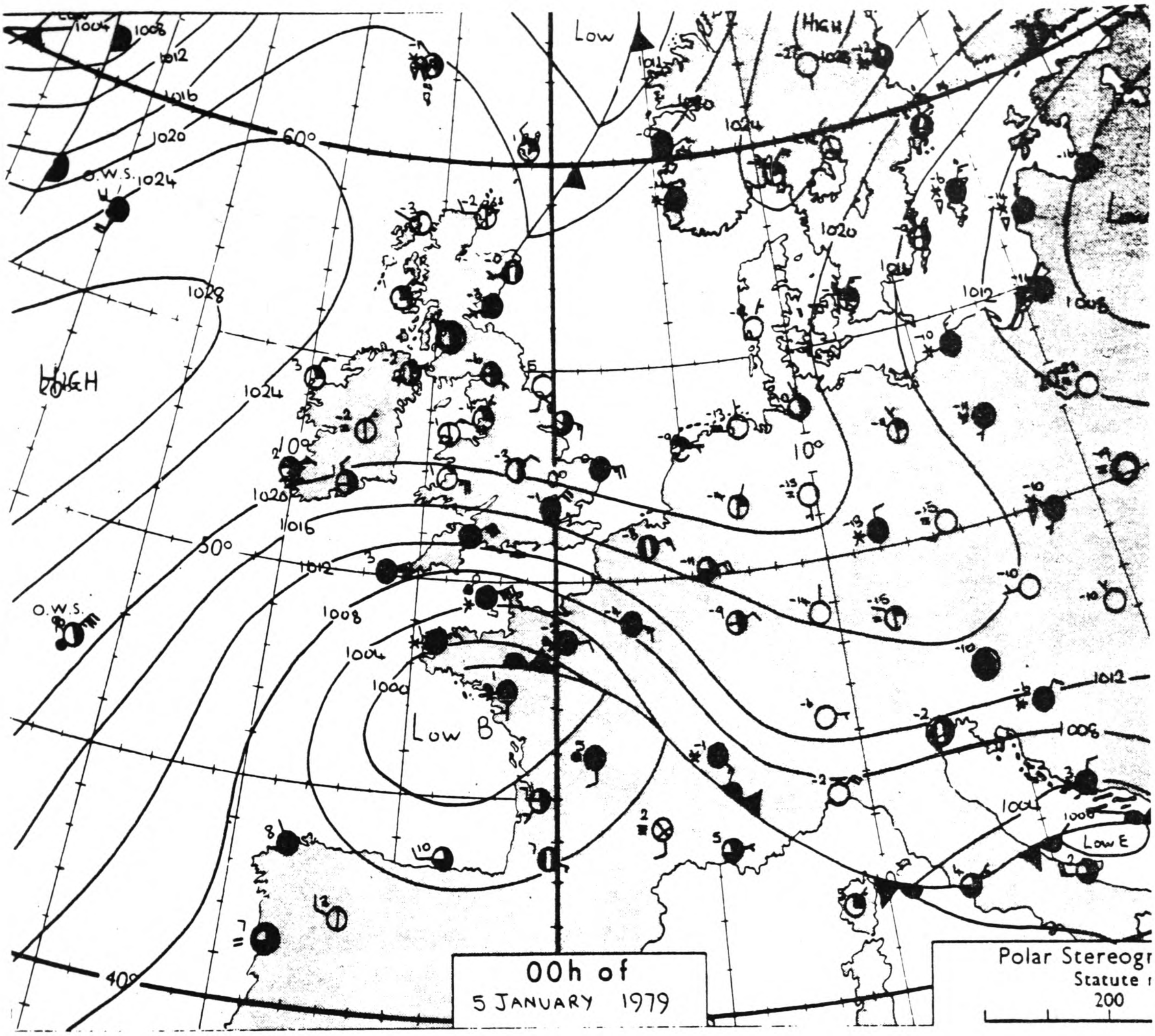
Expectation value of maximum $\bar{H}_3$ in M years

FIGURE 2.15 (Reproduced from HRS Report EX 994)



Synoptic chart September 28 1978 18·00 hrs

FIGURE 2.16 (Reproduced from HRS Report EX 914)



Synoptic chart January 5 1979 00·00hrs

FIGURE 2.17 (Reproduced from HRS Report EX 914)

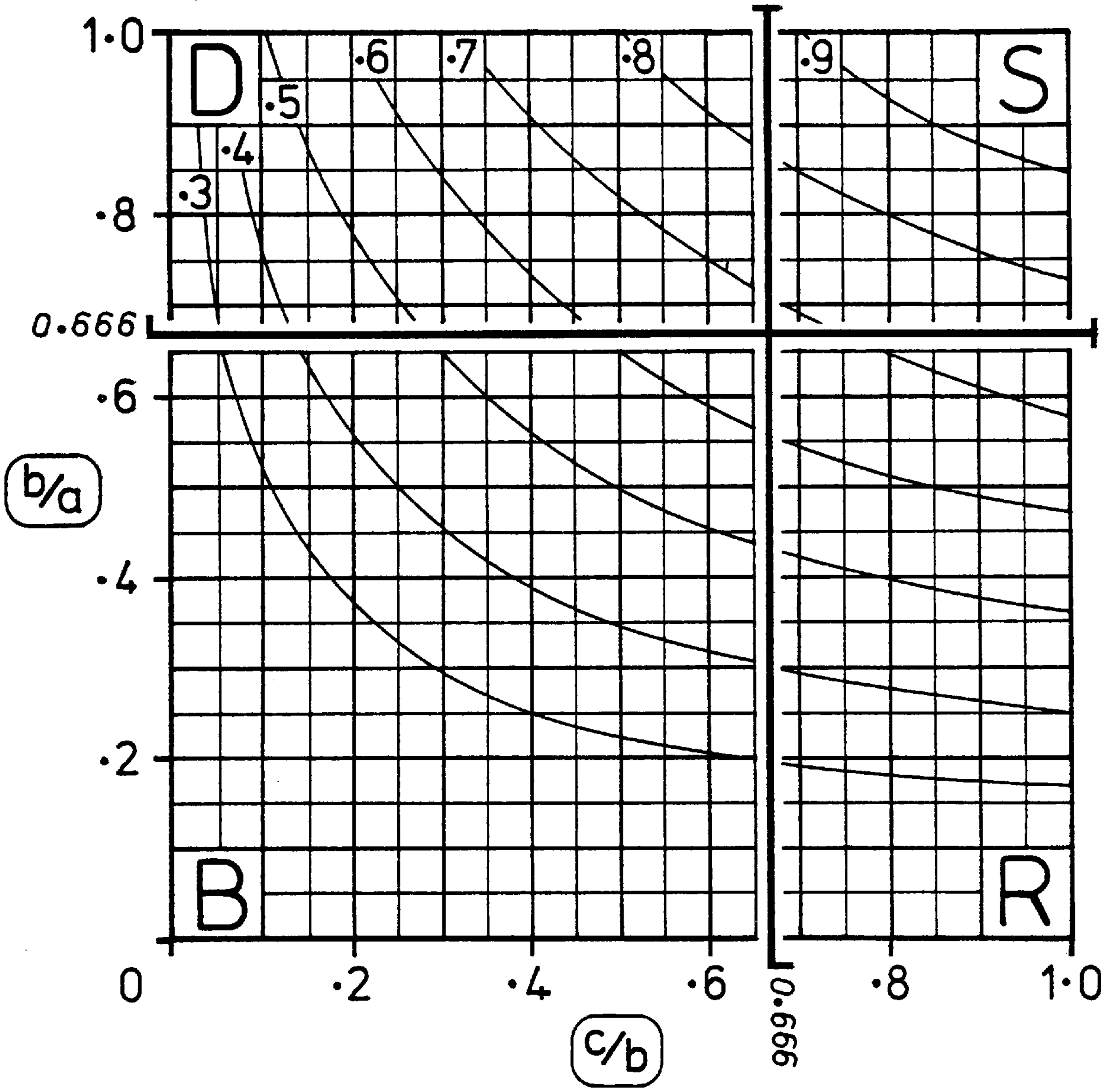


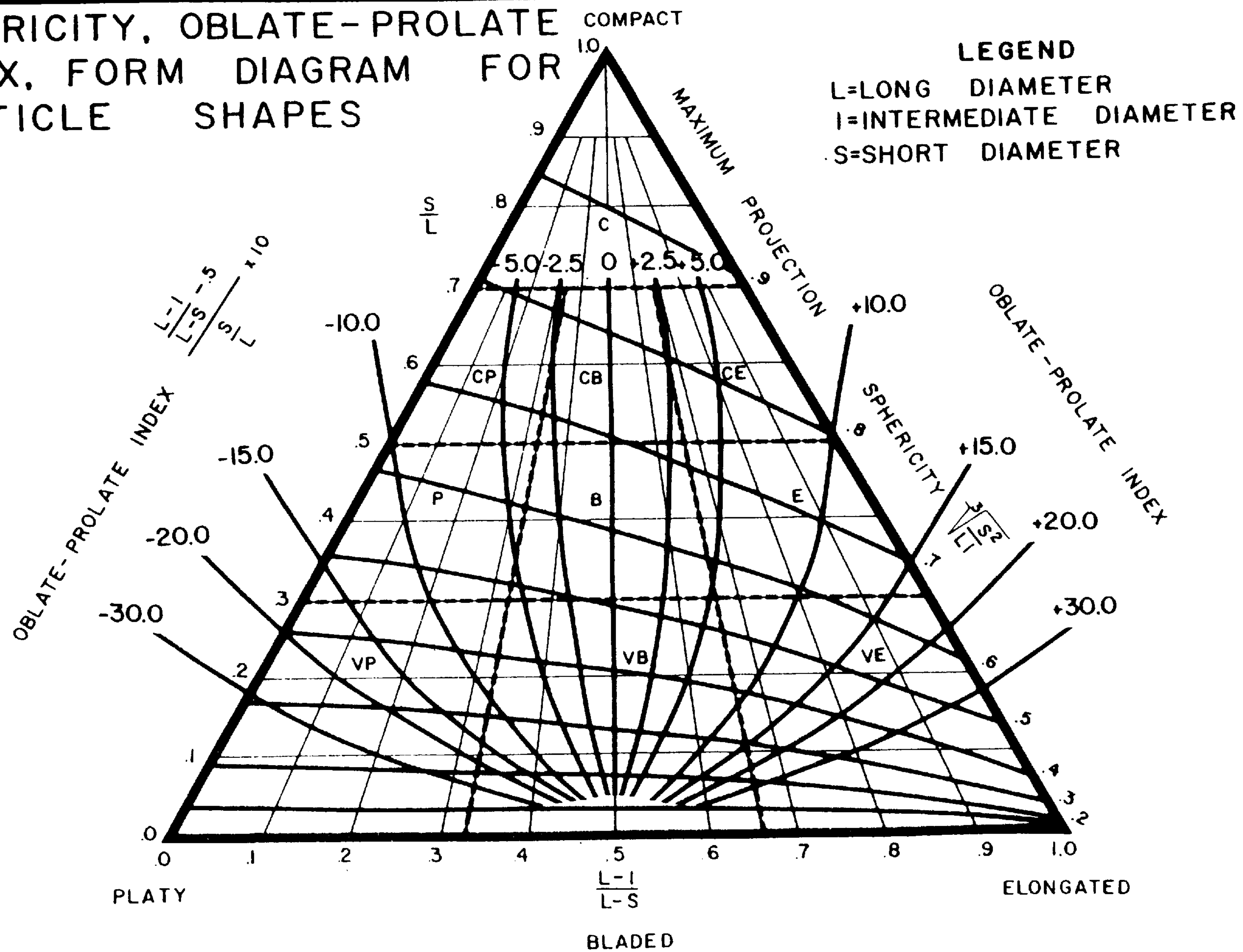
FIGURE 3.1 ZINGG'S (1935) PARTICLE SHAPE DIAGRAM
(Lower case letters a, b and c refer to the three orthogonal particle axes, whereas upper case letters B, D, R and S refer to the four principal shapes: Blades, Discs, Rods and Spheres)

NOTE: Curves indicating the location of Krumbein's (1941) Sphericity Index (0.3 to 0.9) are superimposed.

FIGURE 3.2 SNEED AND FOLK'S (1958) PARTICLE SHAPE DIAGRAM
(The letters L (long), I (intermediate) and S (short) refer to the three particle axes A, B and C respectively. The diagram breaks down into 10 shape categories divided by the dotted lines. C = compact, P = platy, B = blady, E = elongate, and V = very)

NOTE: The curved lines indicate the position of Dobkins and Folk's (1970) Oblate-Prolate Index.

SPHERICITY, OBLATE-PROLATE INDEX, FORM DIAGRAM FOR PARTICLE SHAPES



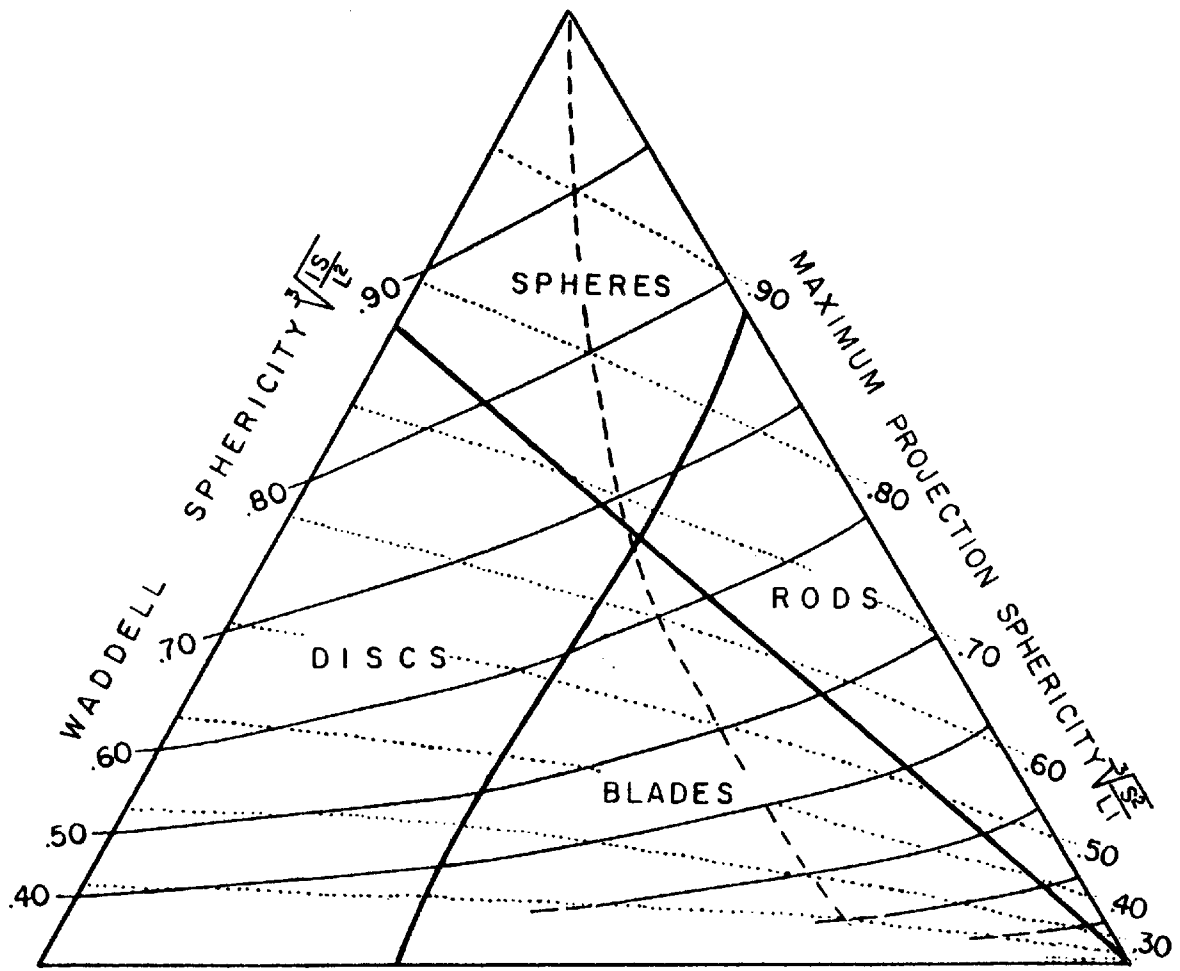


FIG. 3.—Form triangle comparing Wadell-Żingg shape measures with those introduced herein. Basic co-ordinates of the triangle, (S/L) and $(L-I)/(L-S)$, are the same as shown in fig. 2, except that they have been left off this figure to avoid a confusion of lines. Maximum projection sphericity (*dotted lines*) is equivalent to Wadell sphericity (*light solid lines*) at all points along the heavy dashed line curving down from the apex of the triangle. Heavy solid lines divide the field into form classes defined by Zingg. Note small size of the rodlike field.

FIGURE 3.3 (Reproduced from Sneed and Folk, 1958)

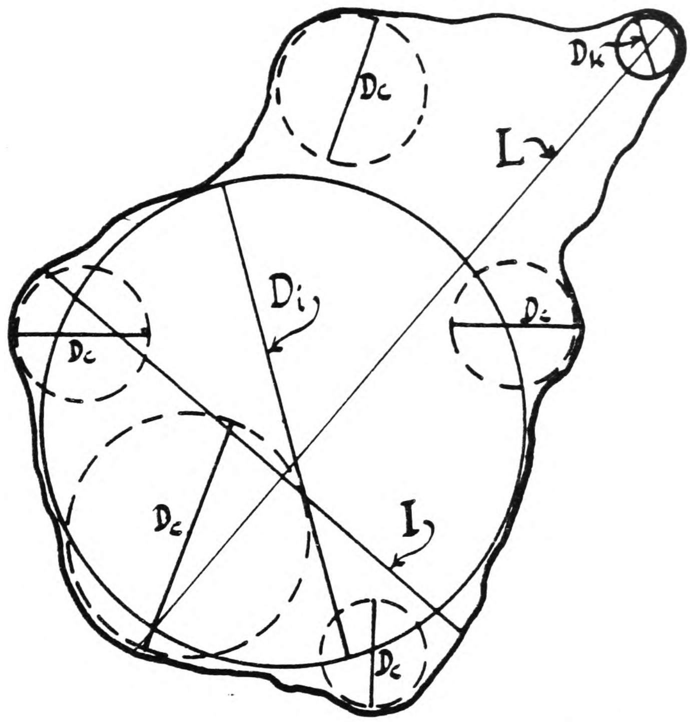


FIG. 7.—A comparison of various roundness measurements. Values are given for the dimensions of the hypothetical grain sketched here, shown as if lying on its maximum projection plane with the short axis vertical to the paper. L: Long axis of the grain, here 66 mm. I: Intermediate axis of the grain, here 45 mm. D_i, diameter of the largest inscribed circle, here 40 mm. D_c, D_k diameter of curvature of corners. D_k, diameter of curvature of the sharpest corner, here 5 mm. Roundness according to several authorities would be as follows:

Wentworth (1919), $\frac{D_k}{L}$, here $\frac{5}{66} = .08$

Wadell (1932), $\frac{(D_k, D_c)/n}{D_i}$,

$$\text{here } \frac{(5+9+10+11+12+20)/6}{40} = .28$$

Cailleux (1947), $\frac{D_k}{L}$, here $\frac{5}{66} = .08$

Kuenen (1956), $\frac{D_k}{I}$, here $\frac{5}{45} = .11$

This paper, $R_{Wi}\,\frac{D_k}{D_i}$, here $\frac{5}{40} = .125$

FIGURE 3.4 (Reproduced from Dobkins and Folk, 1970)

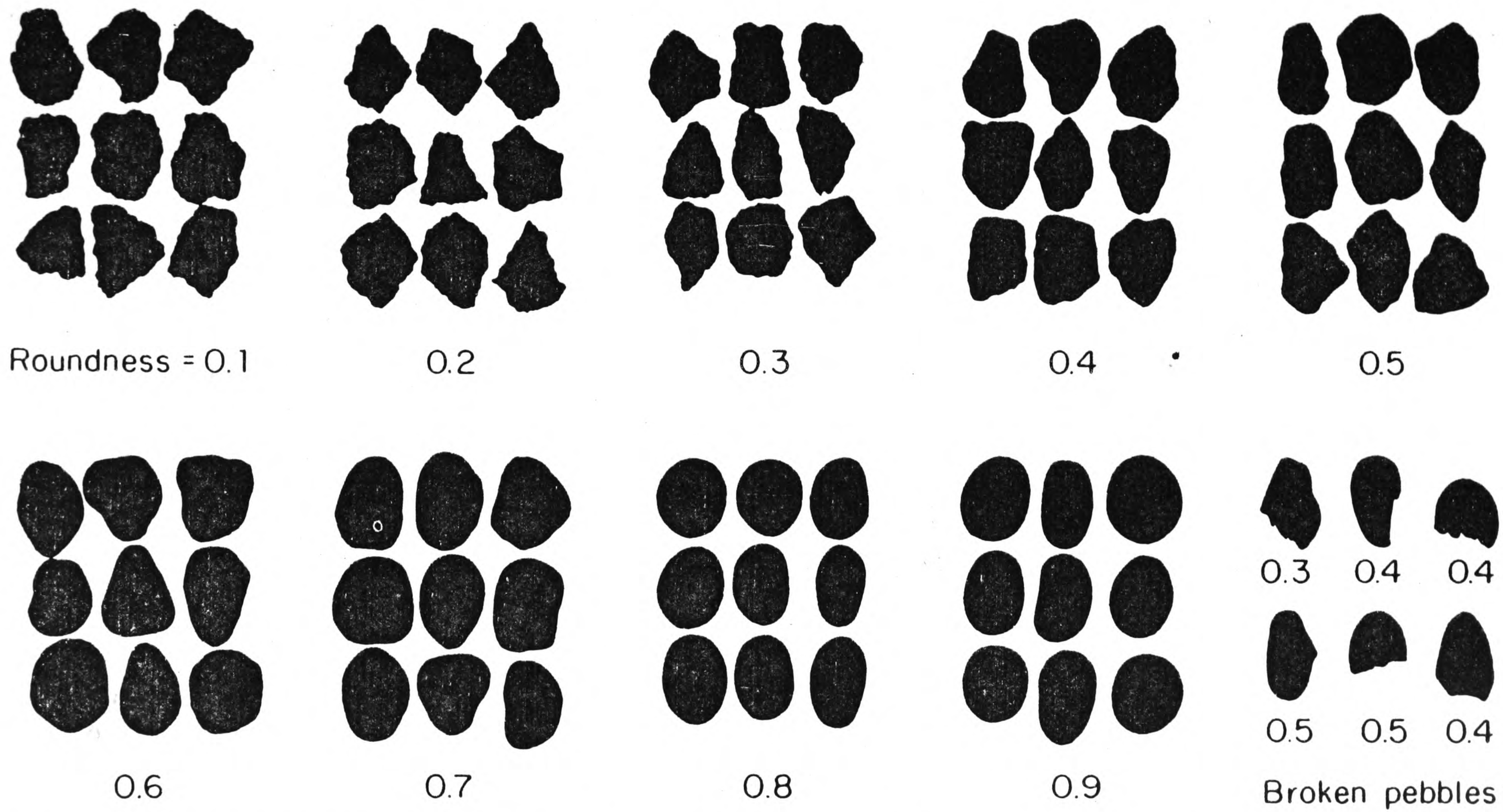


Figure 6.3 Images for estimating visual roundness. [*After W. C. Krumbein, Measurement and Geological Significance of Shape and Roundness of Sedimentary Particles, J. Sediment. Petrol.*, **11**:*68 (1941), Society of Economic Palaeontologists and Mineralogists.*]

FIGURE 3.5 Reproduced from GRIFFITHS, J.C. "Scientific Method in the Analysis of Sediments", McGraw-Hill, 502pp

STANDARD SAMPLING TECHNIQUE

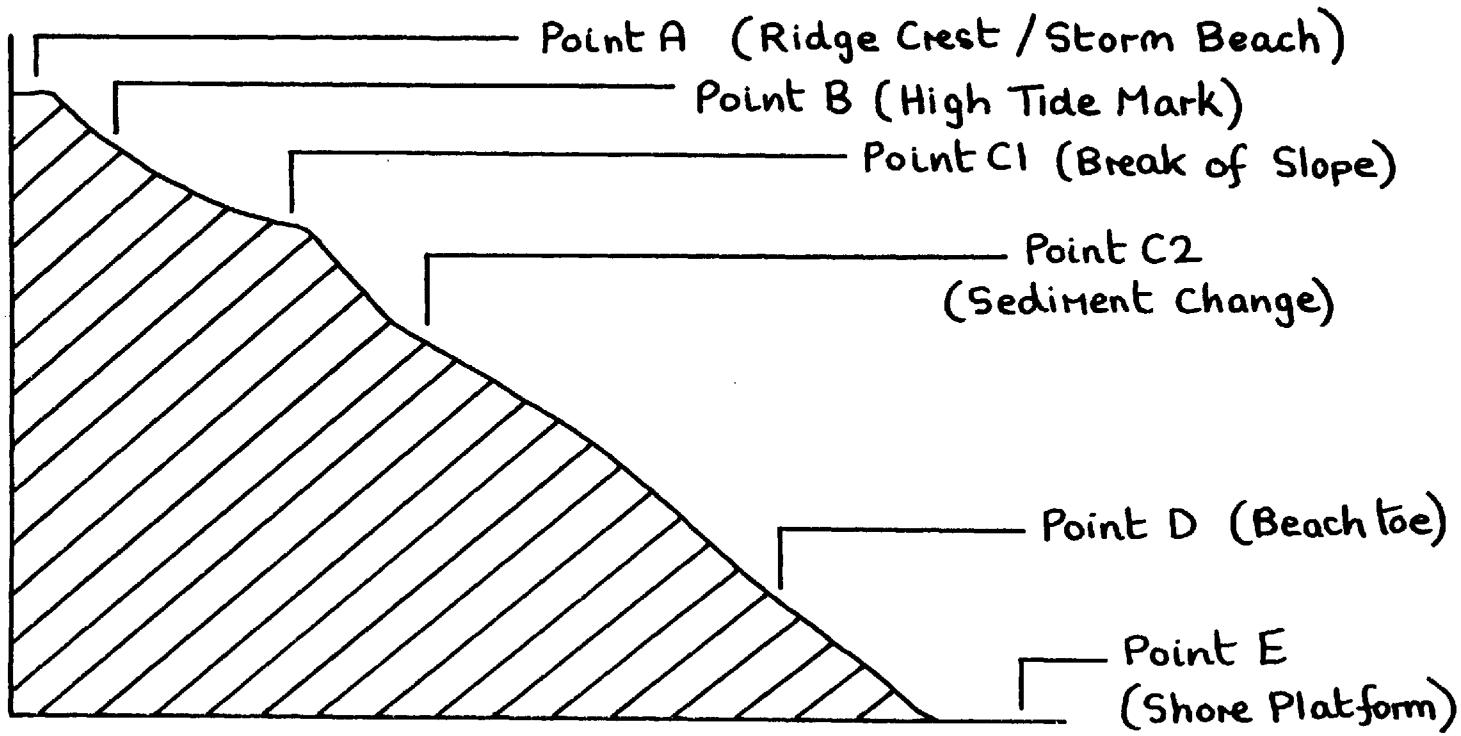


FIGURE 3.6 SHOWING STANDARD SAMPLING POINTS (see text section 3.3.1)

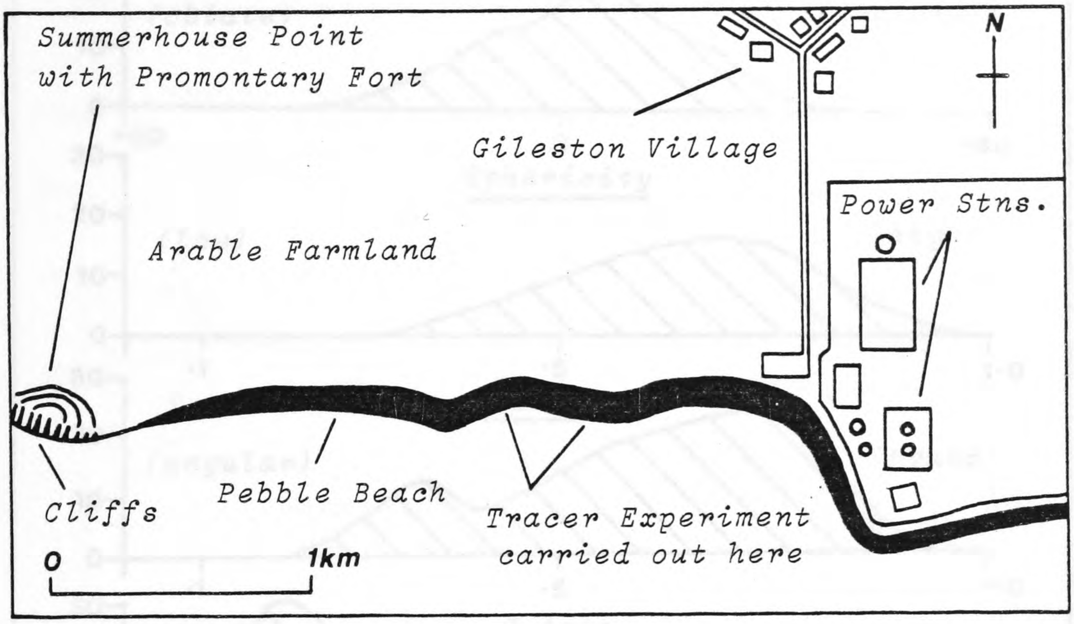


FIGURE 4.1 LOCATION OF TRACER EXPERIMENT ON GILESTON BEACH

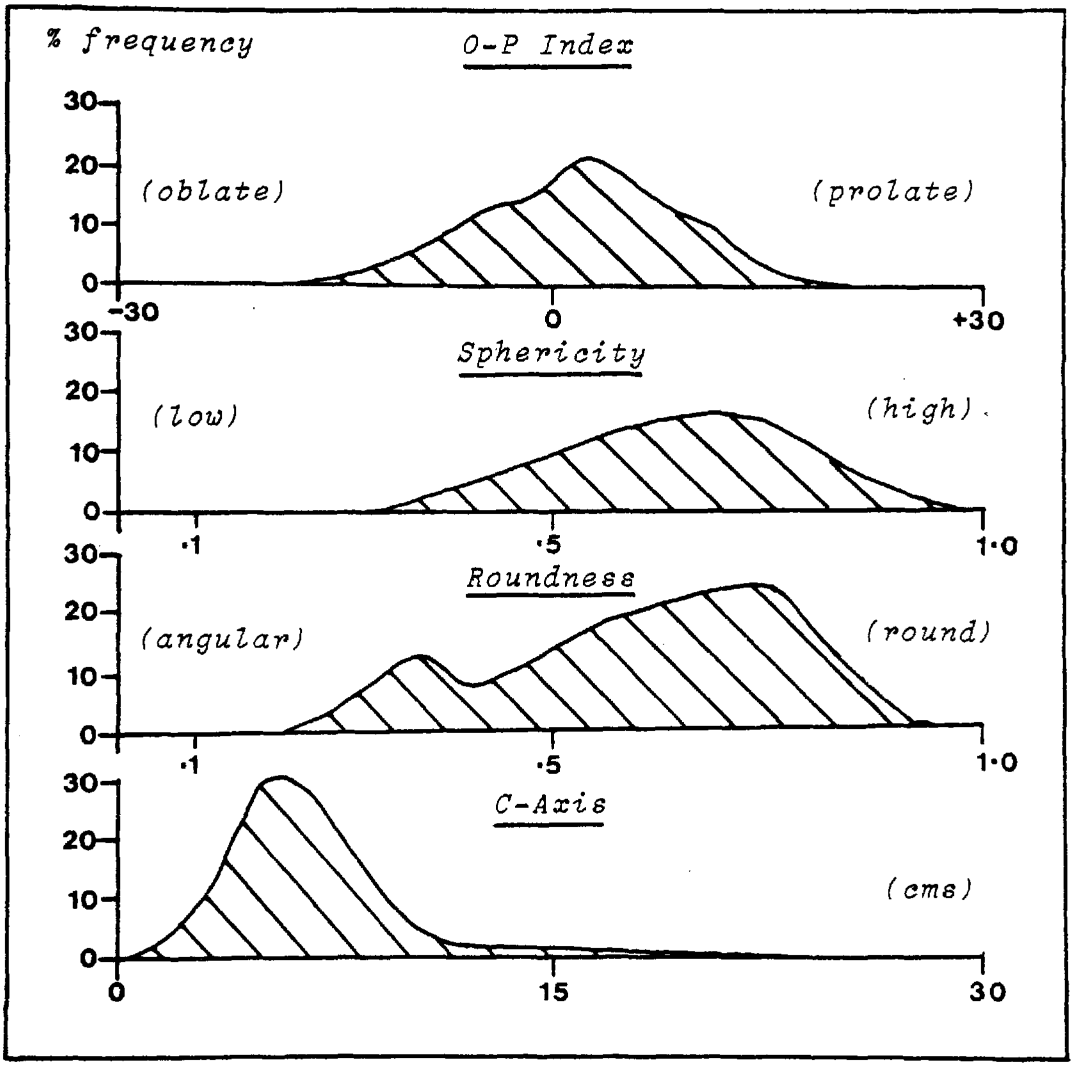
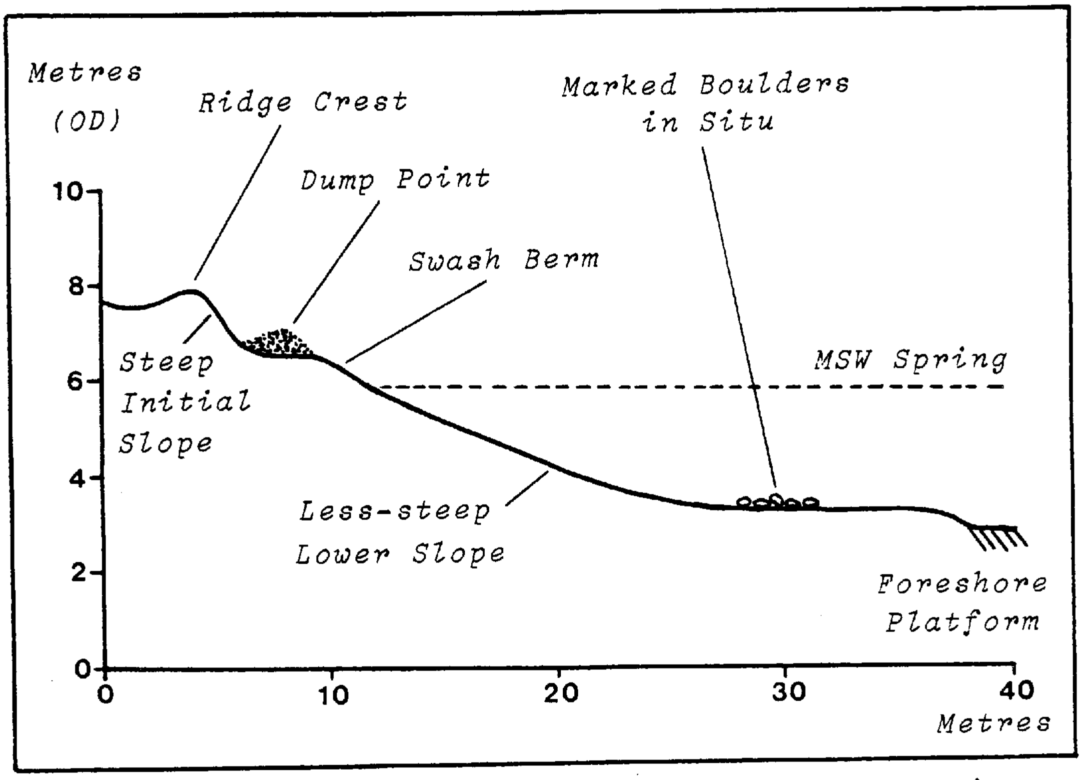


FIGURE 4.2 FREQUENCY DISTRIBUTIONS OF FOUR PARAMETERS OF THE ORIGINAL 2000 TRACERS



Profile of Gileston Beach on 1/3/78 at Dump Point

FIGURE 4.3 LOCATION OF THE INJECTION (DUMP) POINT ON THE PROFILE

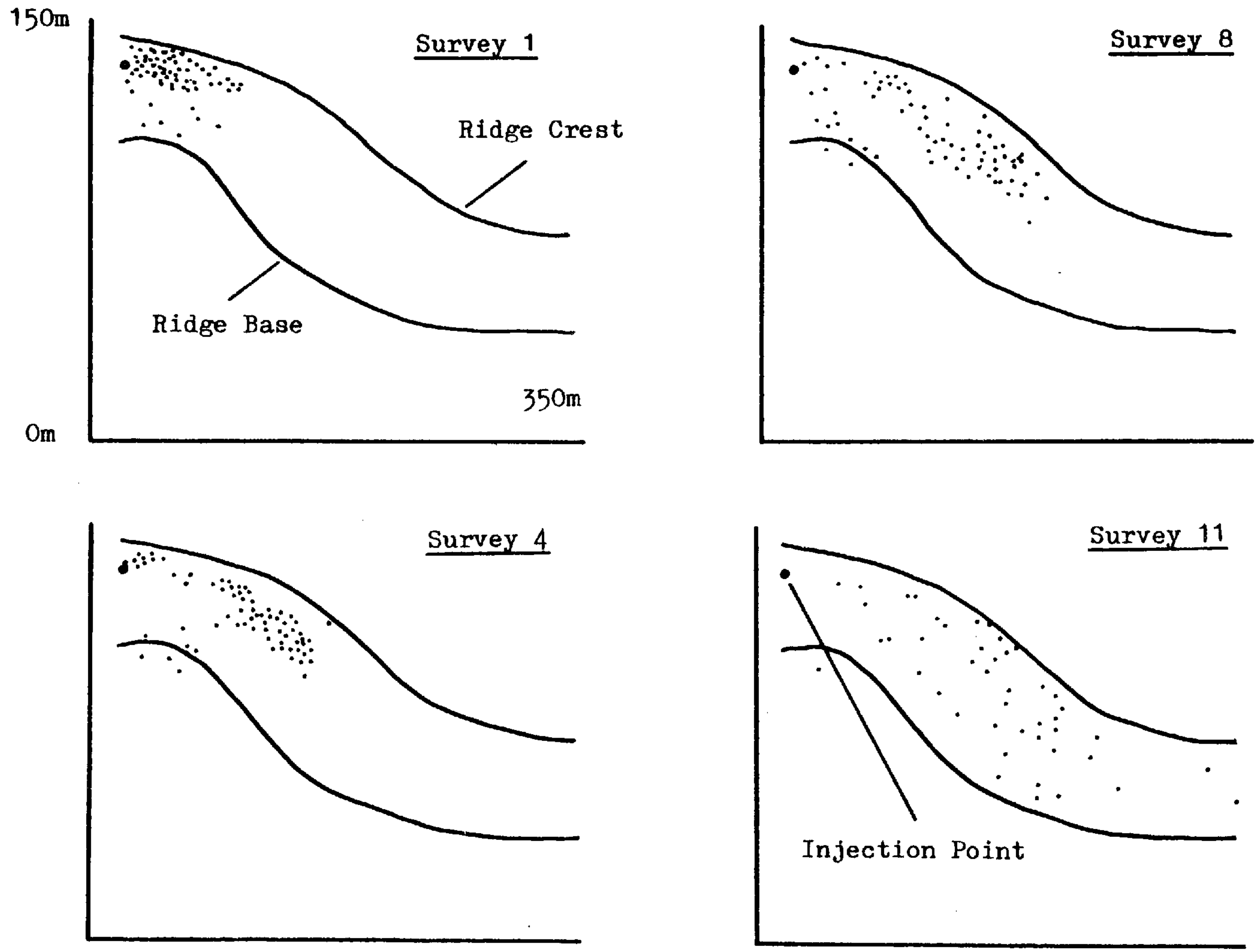


FIGURE 4.4 FOUR EXAMPLES OF THE DISPERSING TRACER

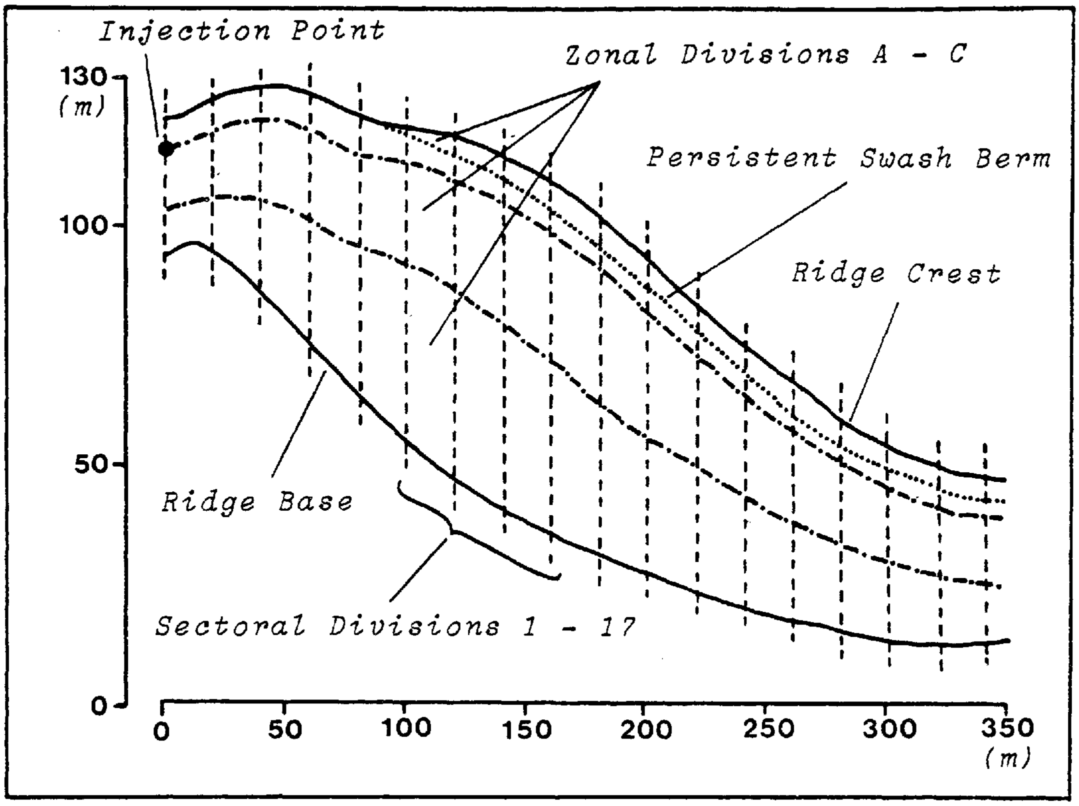


FIGURE 4.5 BEACH PLAN SHOWING THE DIVISION BY ZONES AND SECTORS

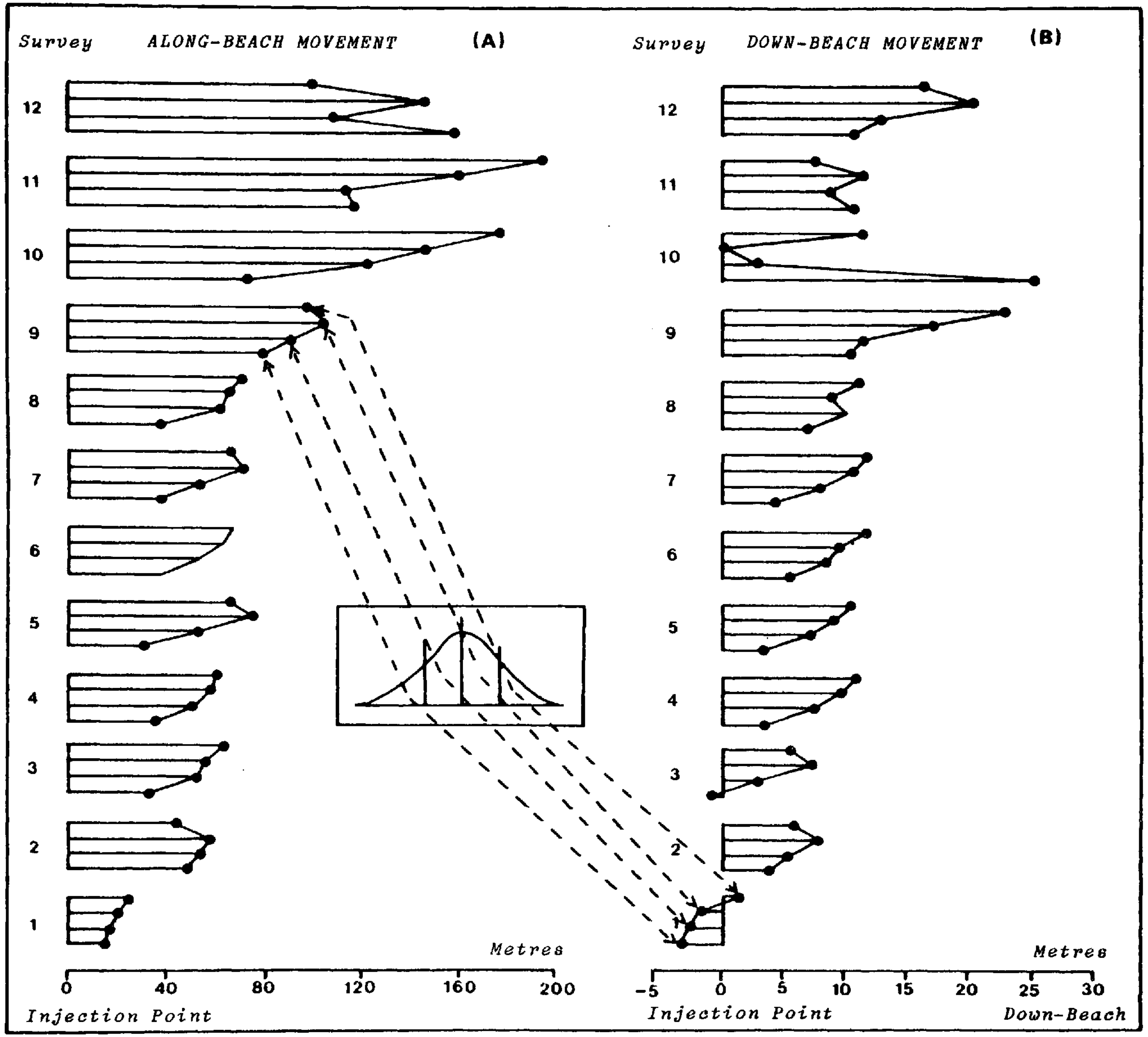
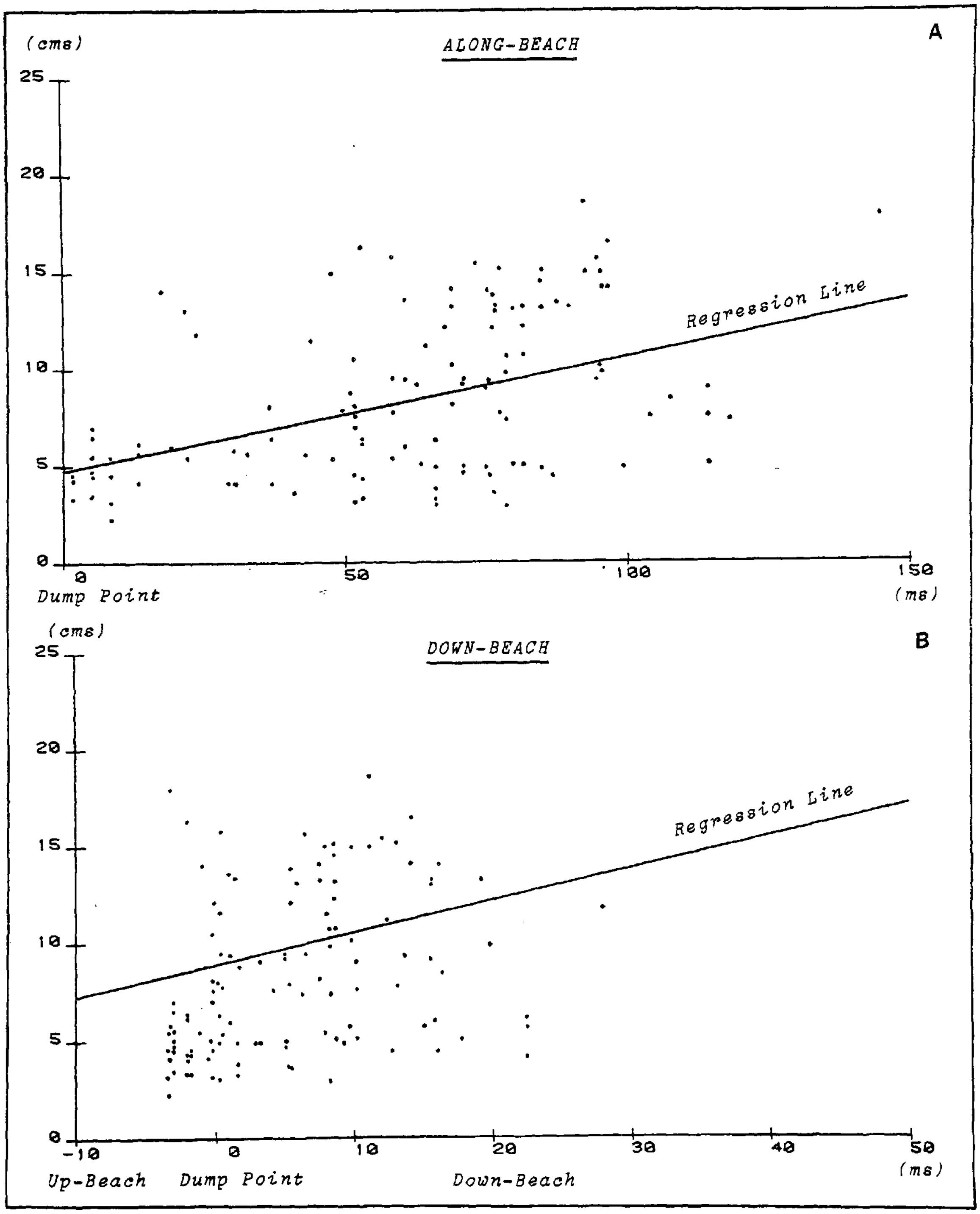


FIGURE 4.6 Distances travelled along-beach and down-beach by the sub-group centroids calculated for the small (C) axis. (See section 4.3.2 of text)



Regression Lines Fitted for C Axis Distribution Observed on the 5th Survey

FIGURE 4.7 SCATTER AROUND REGRESSION LINES

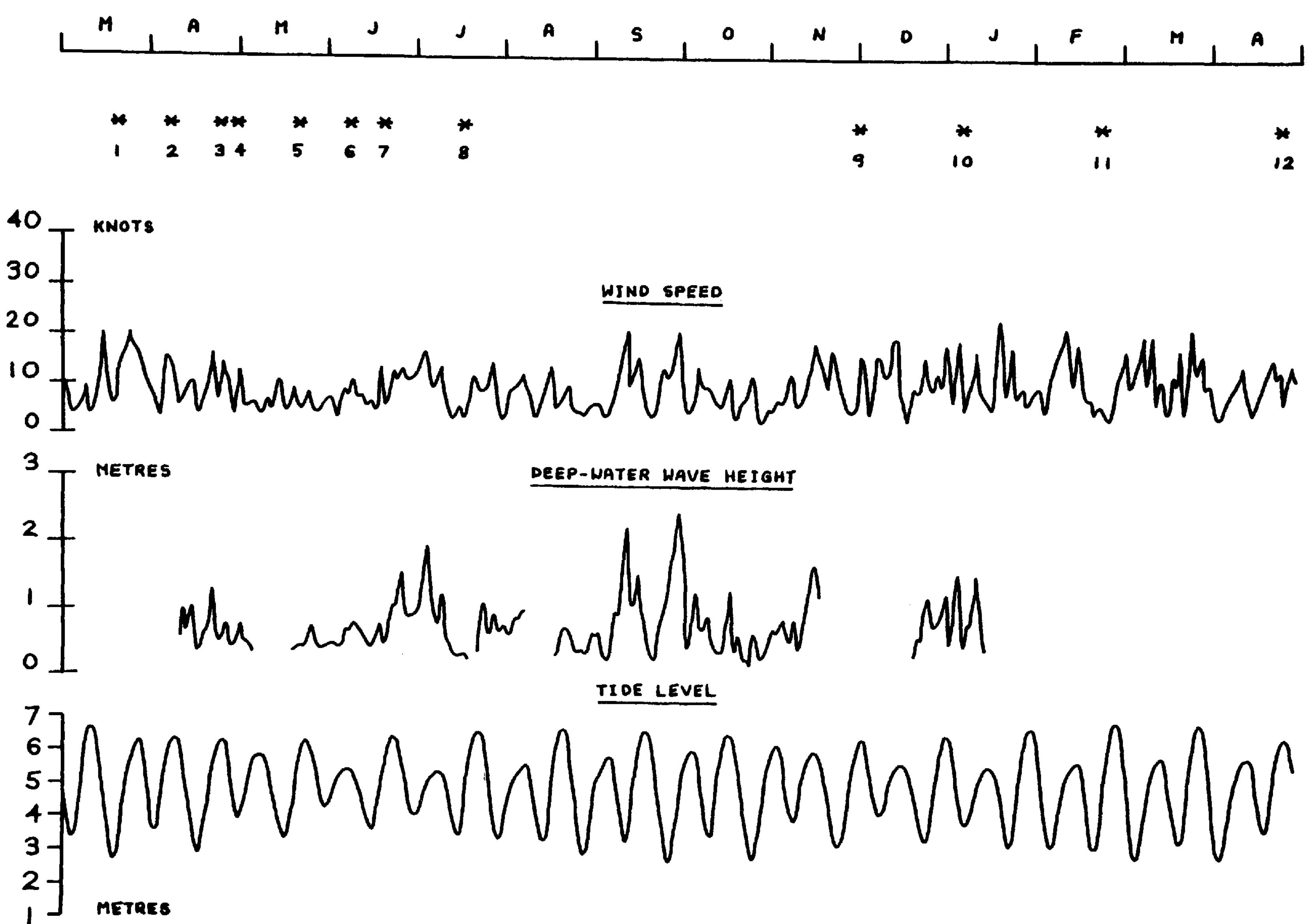


FIGURE 4.8 The environmental regime during the tracer experiment. (The dates of the 12 surveys are indicated at the top. See section 4.3.4 of text)

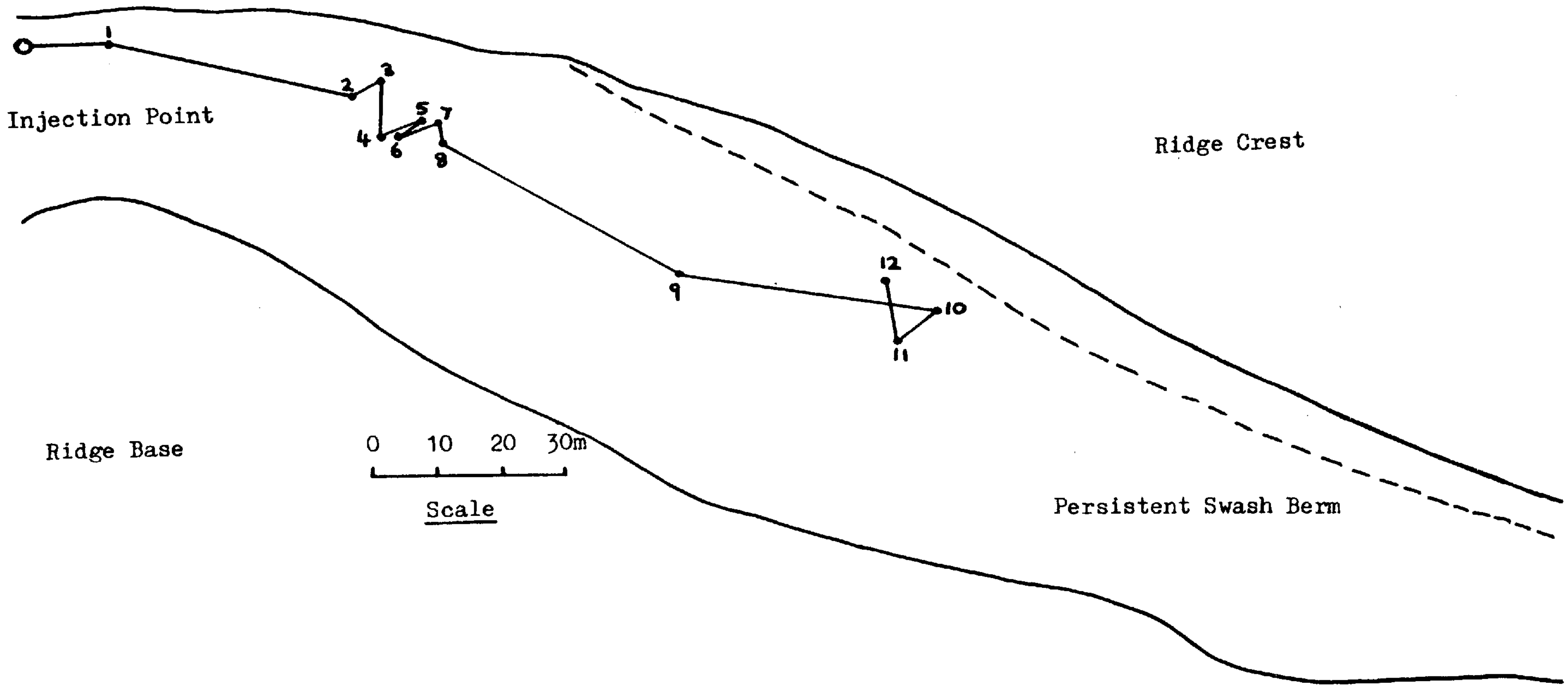


FIGURE 4.9 POSITION OF THE 12 OVERALL TRACER CENTROIDS (See section 4.3.4)

The numbers 1-12 refer to the tracer survey dates which can be found on Table 4.1.

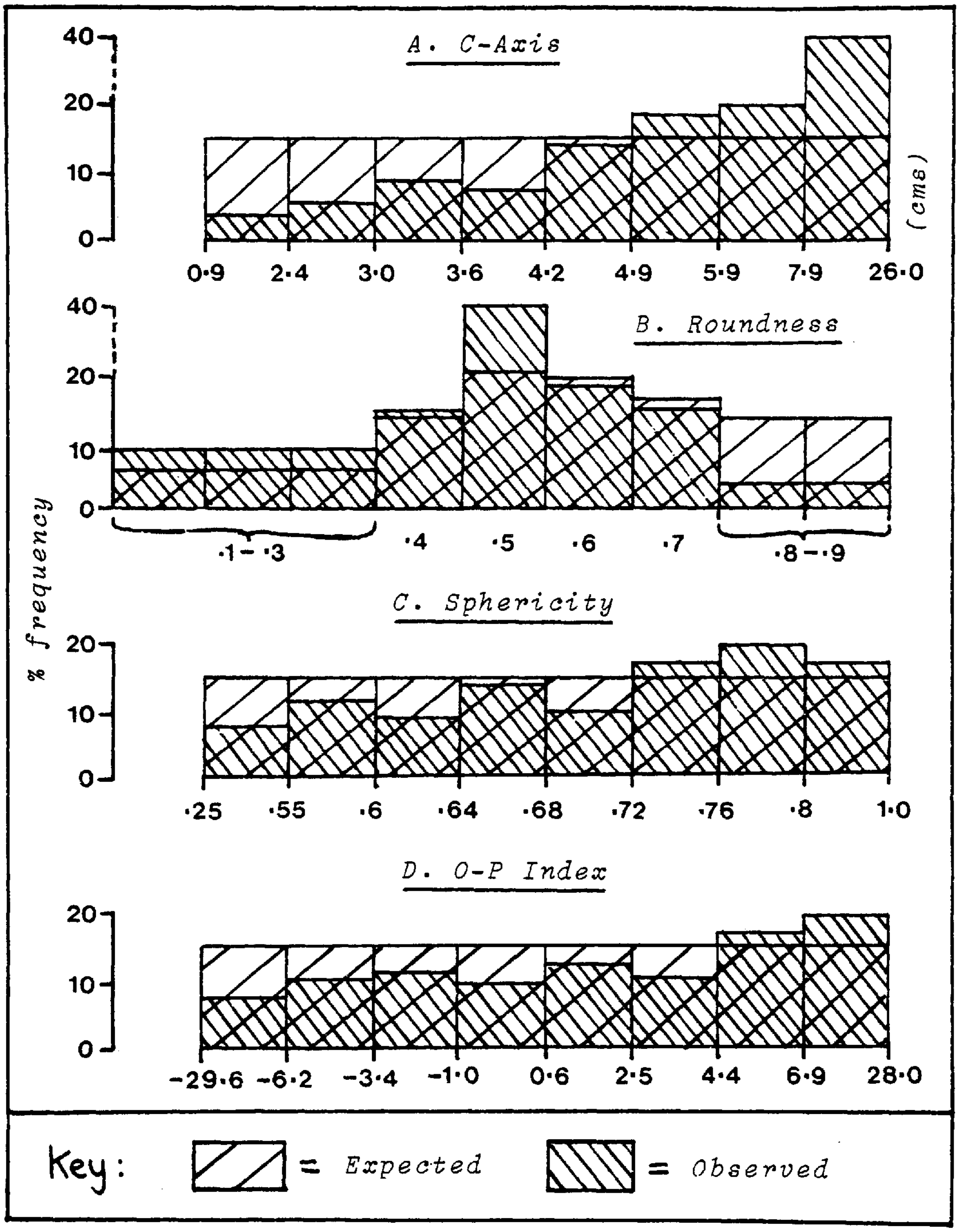
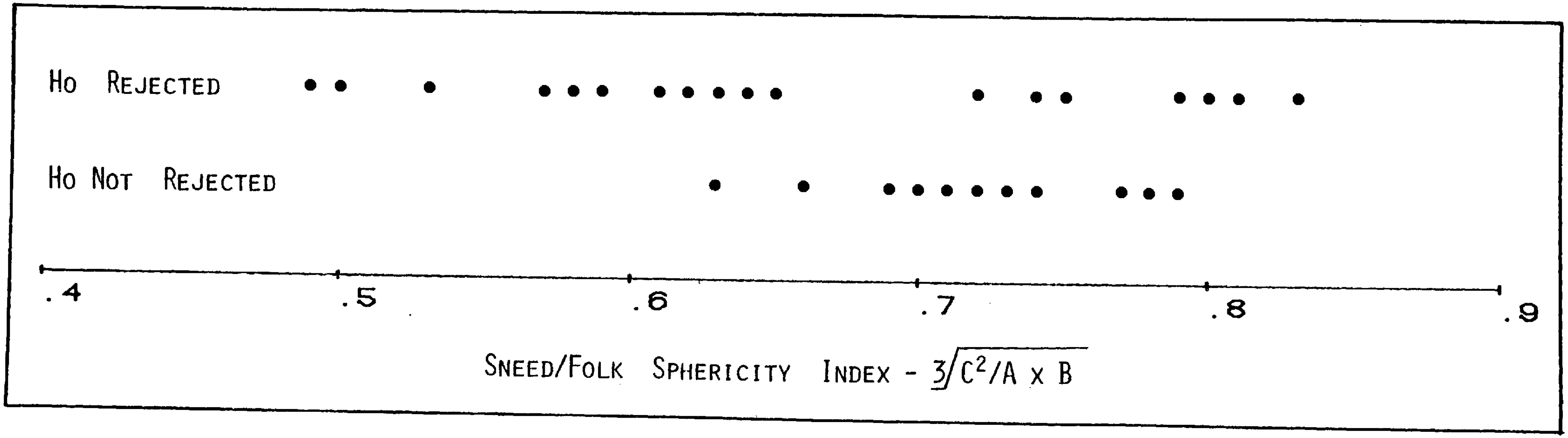
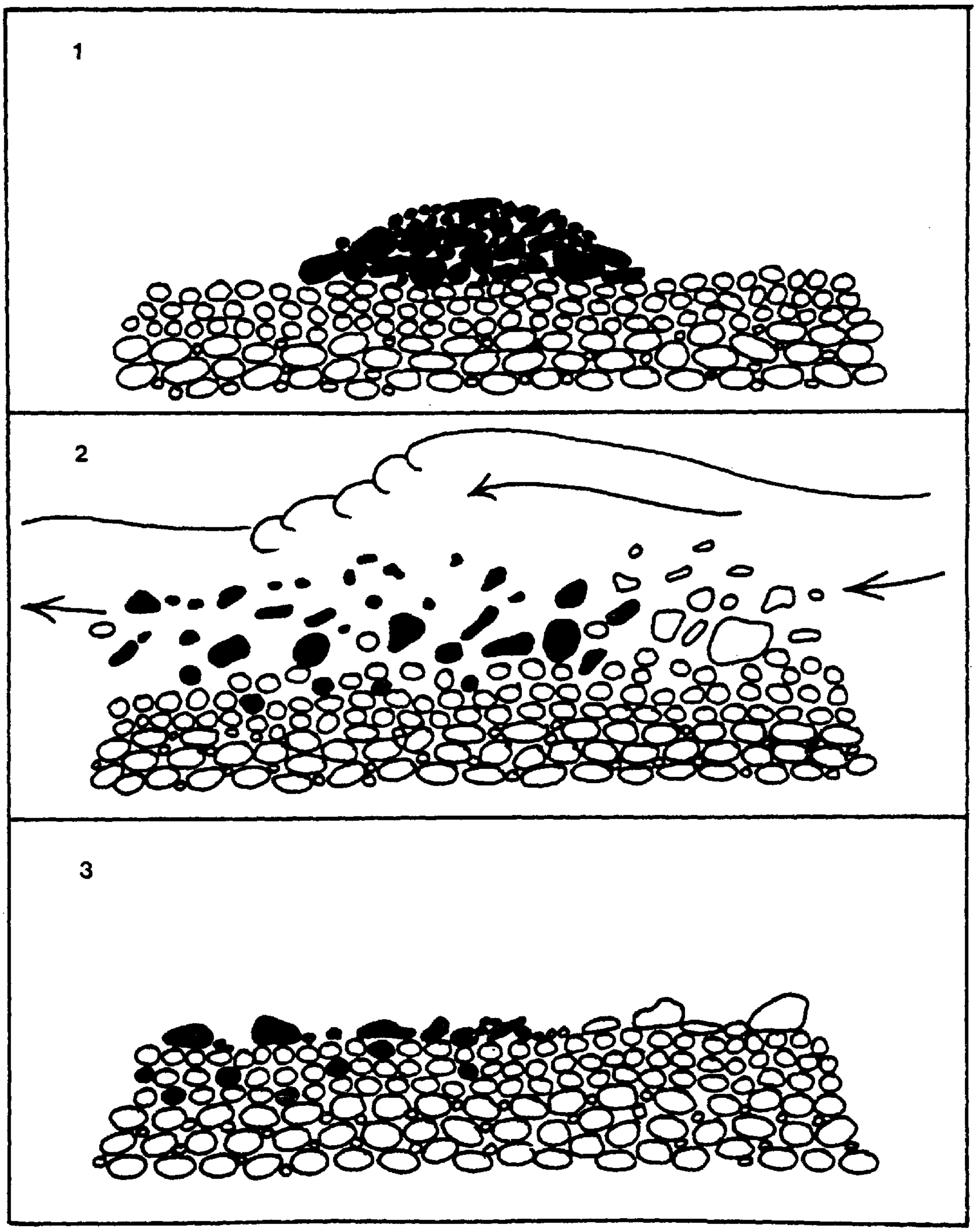


FIGURE 4.10 *Expected and Observed Frequencies of the 12 'Returned Populations'*

FIGURE 4.11 SPHERICITY VALUES FOR TRACERS IN TRACER/'HOST' TESTS





The Ultimate Fate of Tracer Material

FIGURE 4.12 MODEL SHOWING THE PROPOSED SELECTIVE SORTING OF TRACER BENEATH WAVES

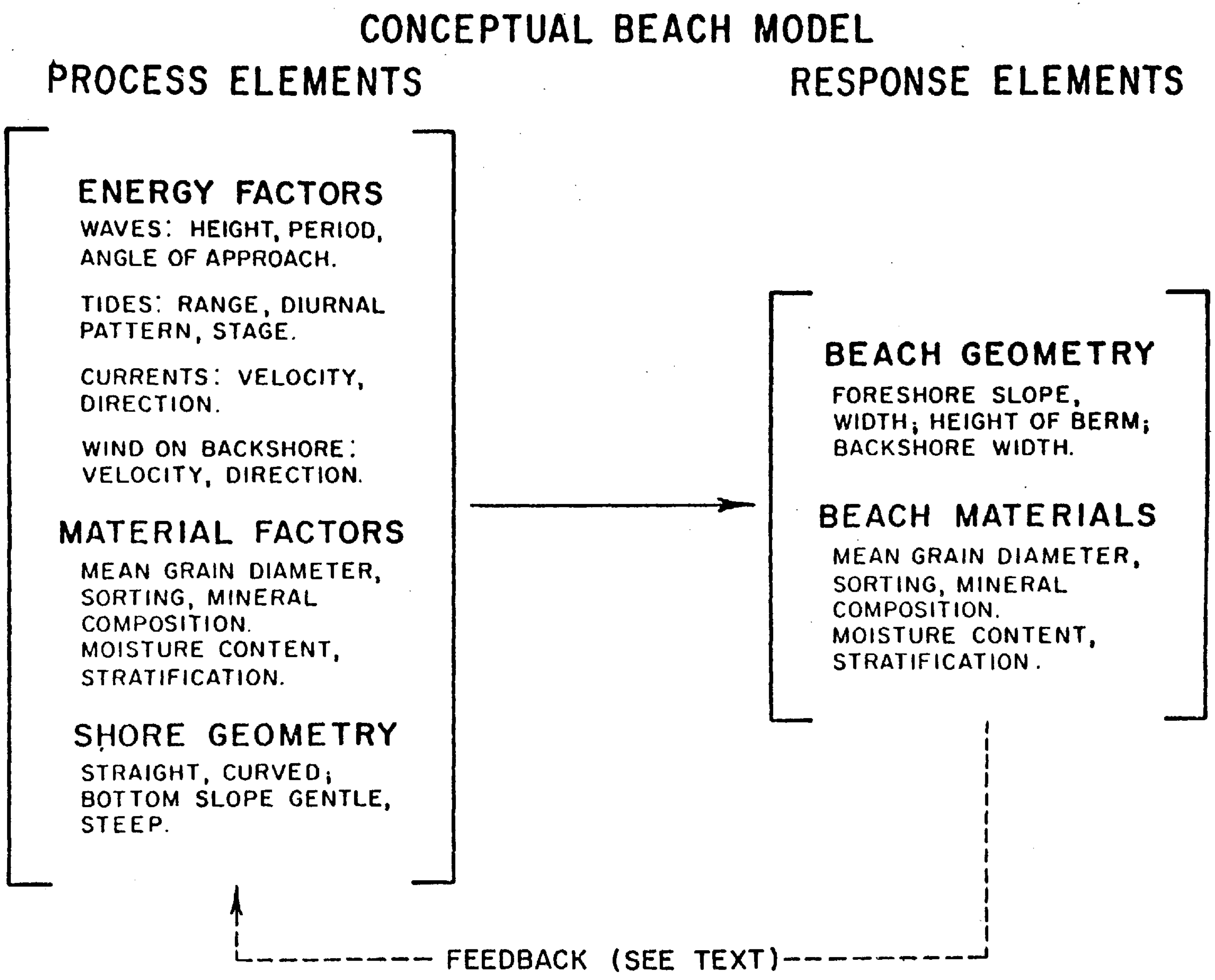


FIGURE 5.1 PROCESS-RESPONSE MODEL OF A BEACH

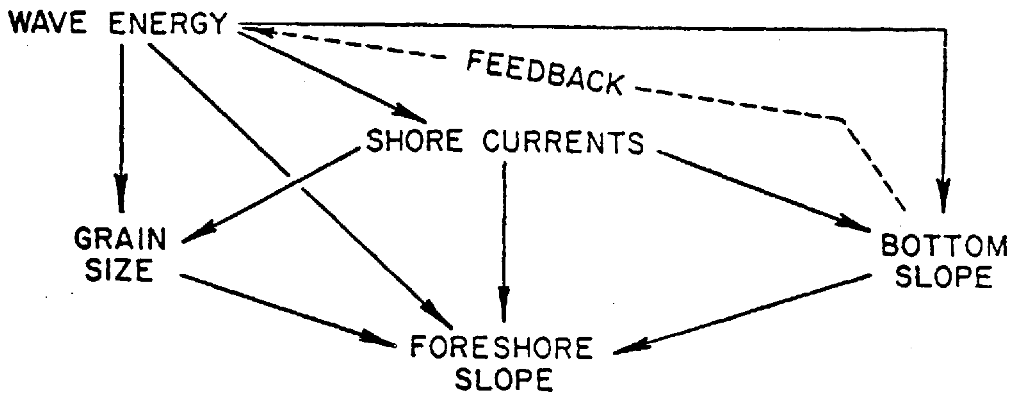


FIGURE 5.2 BEACH PROCESS-RESPONSE MODEL FROM KRUMBEIN (1963)

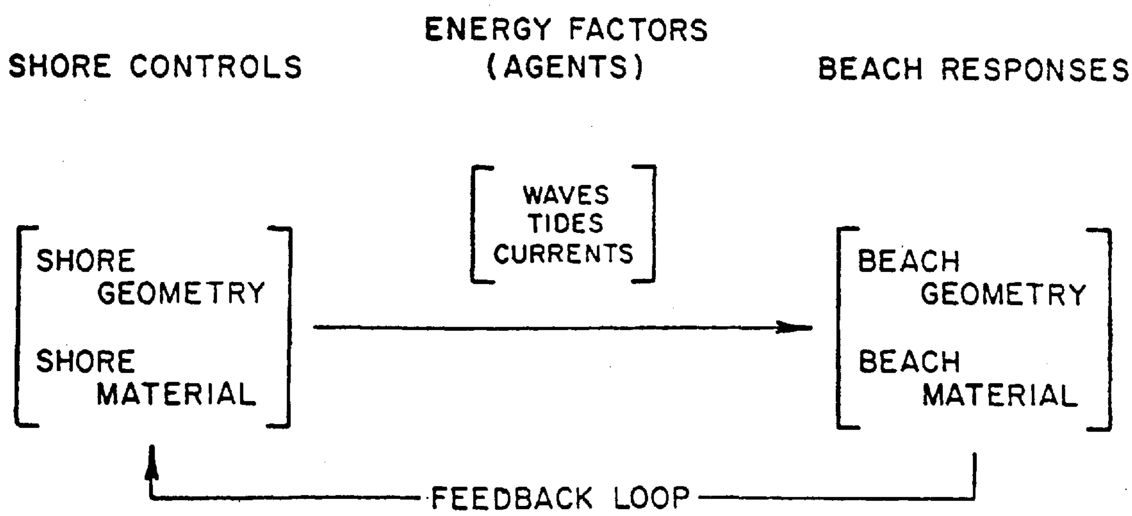
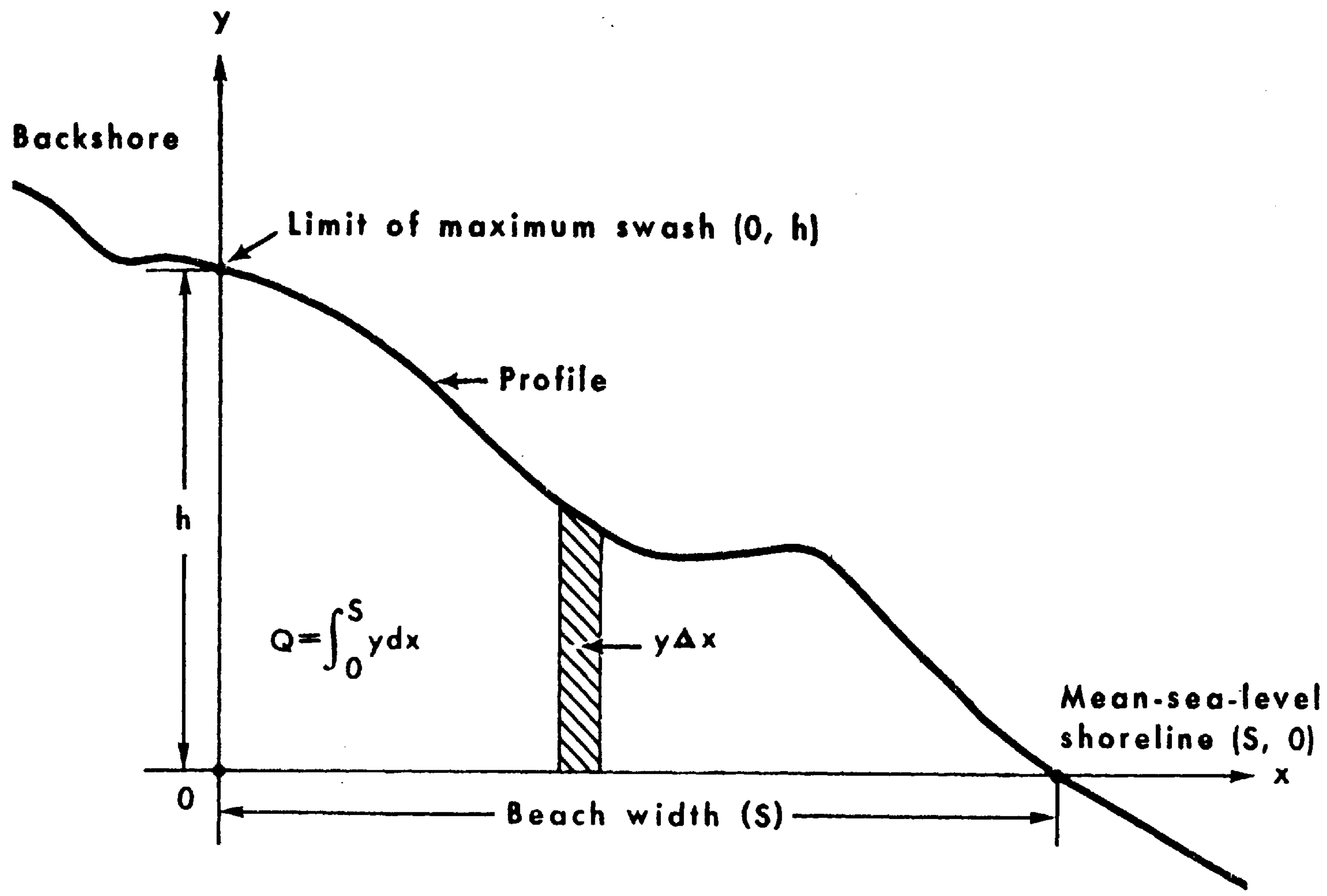
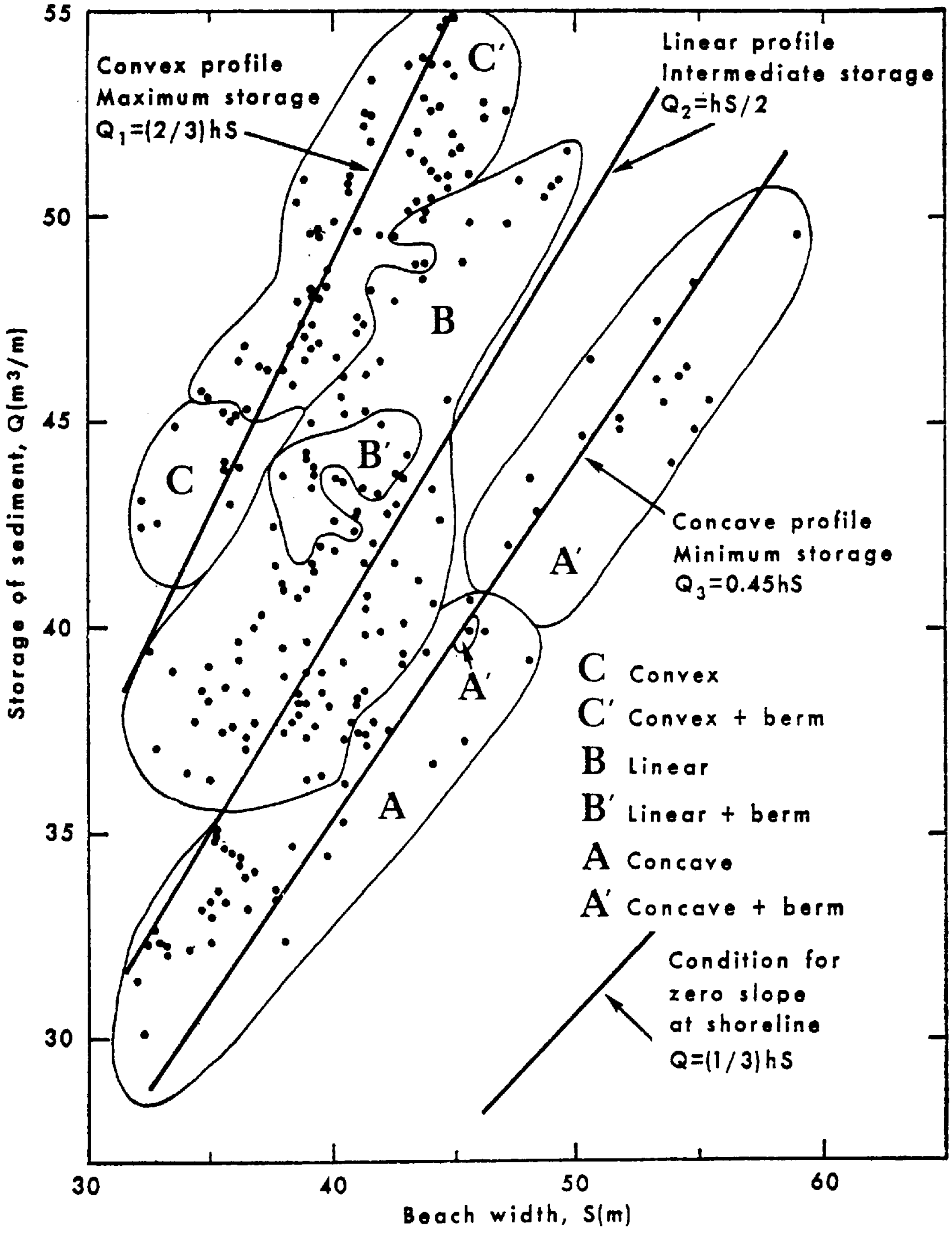


FIGURE 5.3 BEACH PROCESS-RESPONSE MODEL FROM KRUMBEIN (1963)



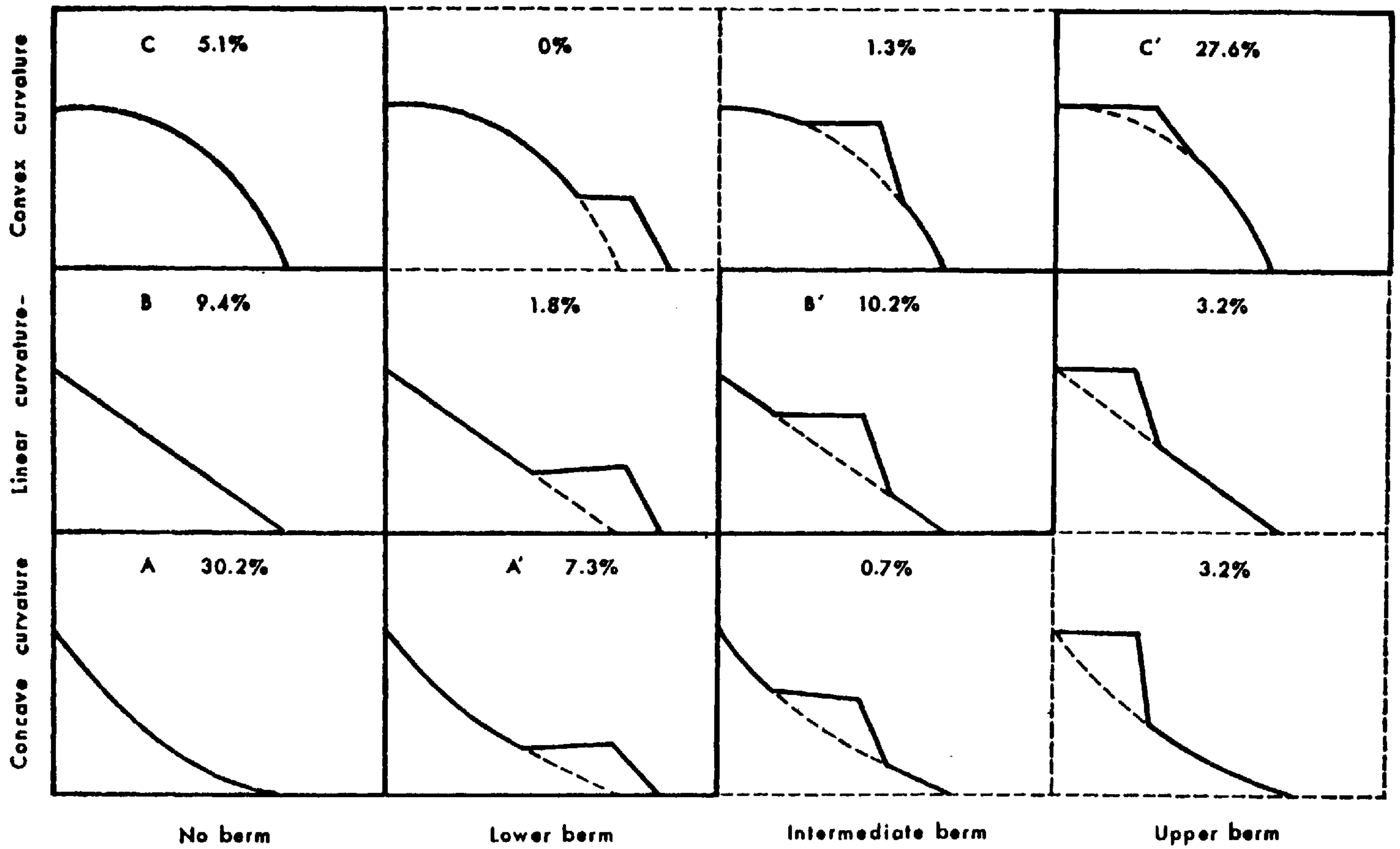
Coordinate system employed for representation of beach profiles

FIGURE 5.4 BEACH CO-ORDINATE SYSTEM FROM SONU AND VAN BEEK (1971)



Comprehensive presentation of beach-profile data as a multiple function of three selected parameters, i.e., beach width, sediment storage, and configuration.

FIGURE 5.5 DIVISION OF PROFILES BY CONFIGURATION FROM SONU AND VAN BEEK (1971)



Classification of profile configurations as possible combinations of three curvatures and three berm elevations.

FIGURE 5.6 SONU AND VAN BEEK'S (1971) PROFILE CLASSIFICATION

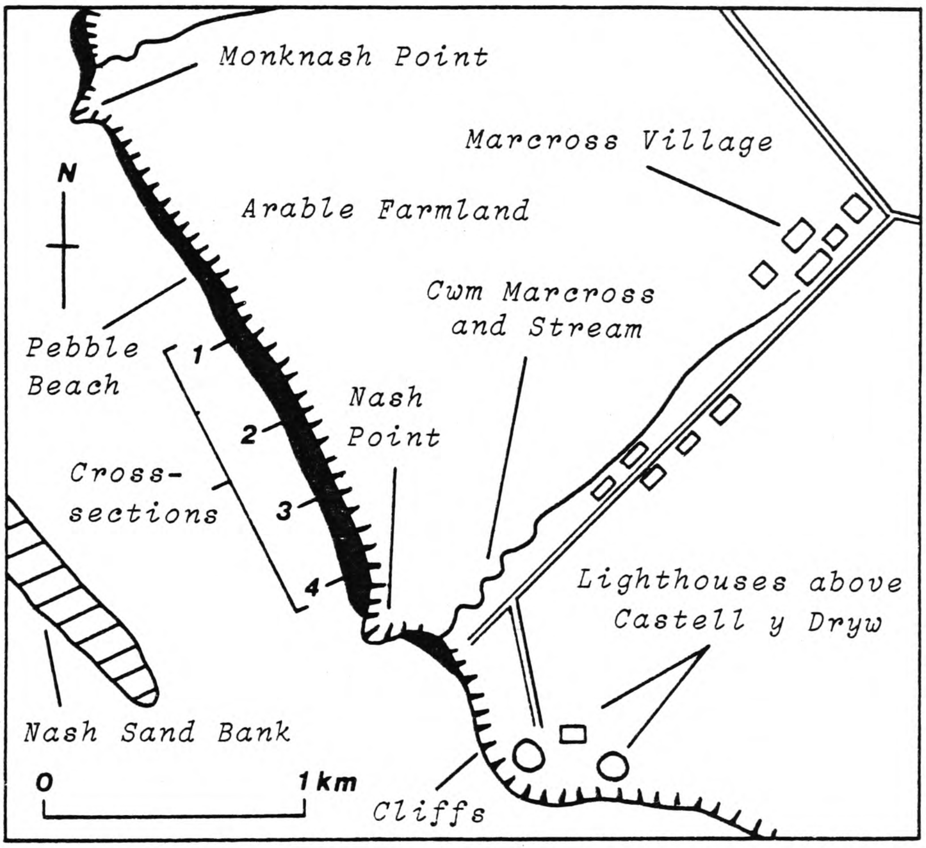


FIGURE 5.7 <u>LOCATION OF CROSS-SECTIONS 1 - 4 ON NASH BEACH</u>

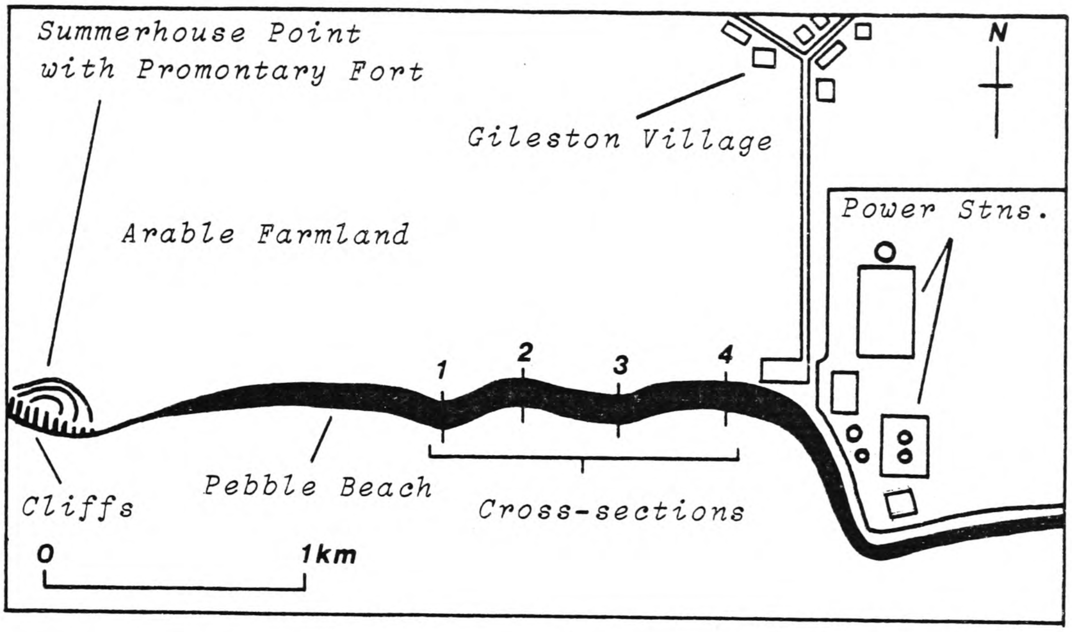


FIGURE 5.8 LOCATION OF CROSS-SECTIONS 1 - 4 ON GILESTON BEACH

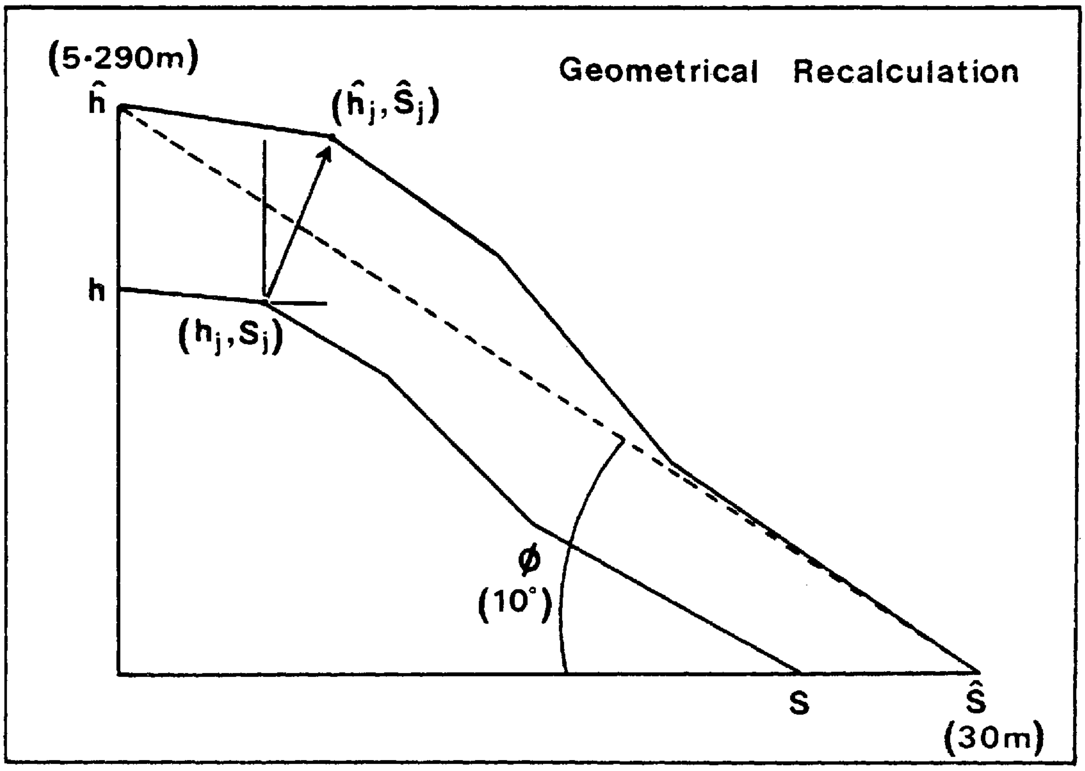


FIGURE 5.9 <u>GEOMETRIC RECALCULATION OF PROFILES</u> (see section 5.4)

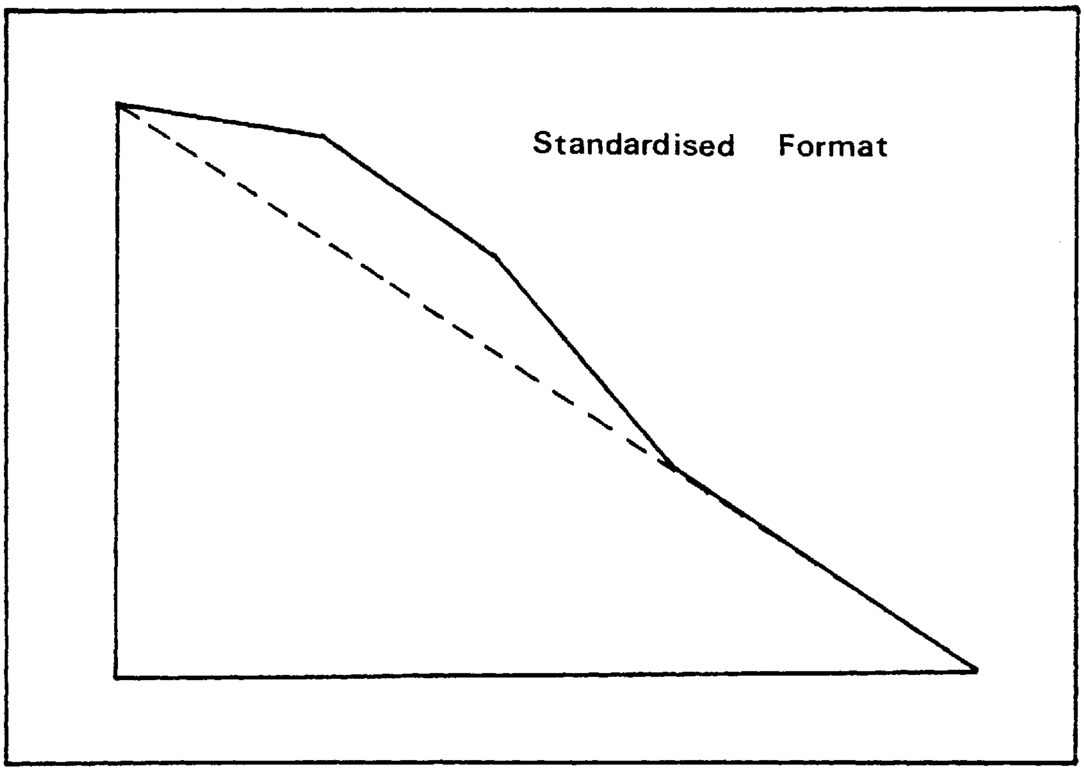


FIGURE 5.10 STANDARDISED FORMAT THROUGH WHICH CLASSIFICATION WAS MADE

(Example is of a Linear, Upper Berm (LUB) configuration. The diagonal dashed line assists in the classification of profile macro-form.)

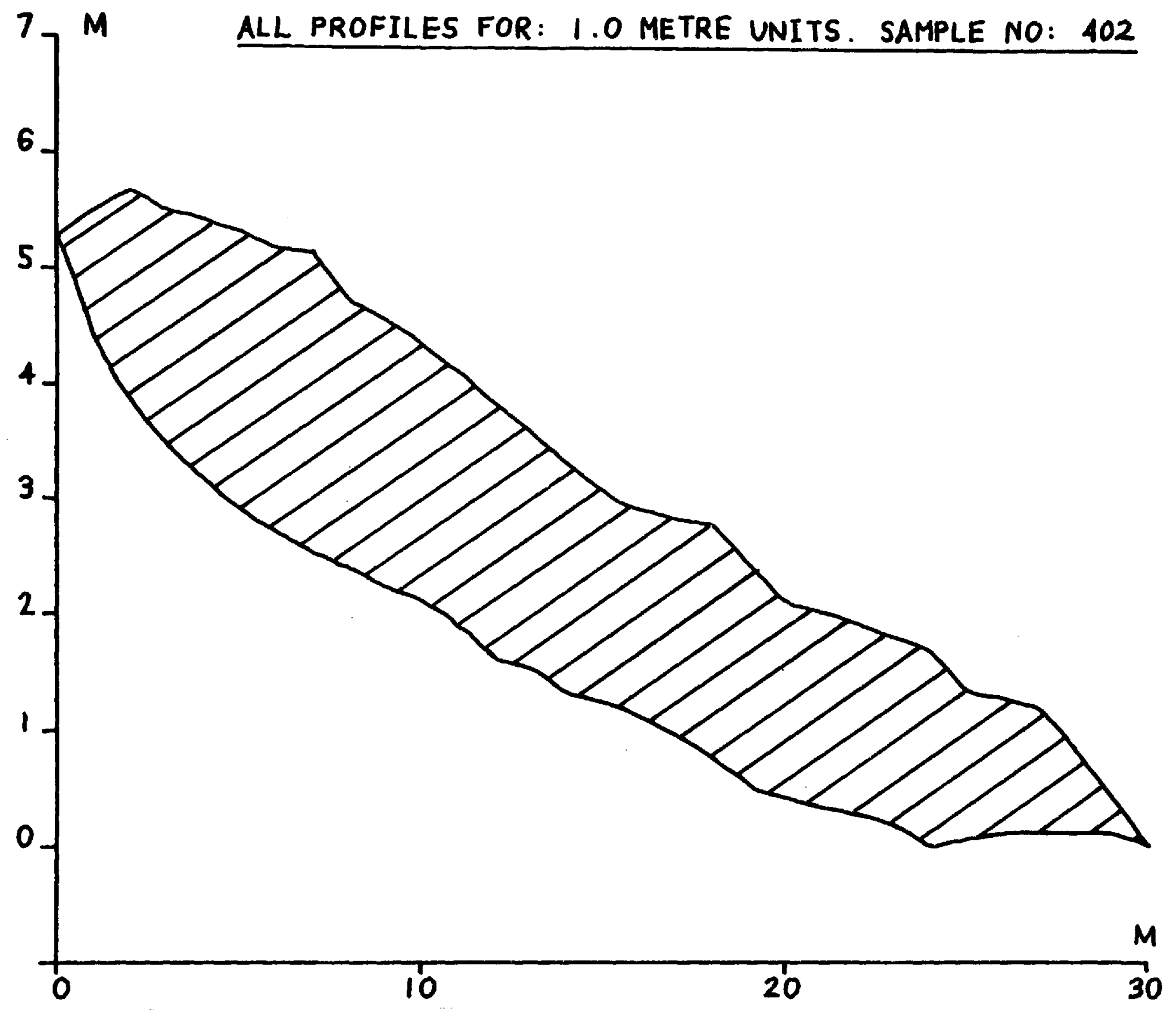


FIGURE 5.11 HYPOTHETICAL 'SWEEP ZONE' OF THE 402 STANDARDISED PROFILES

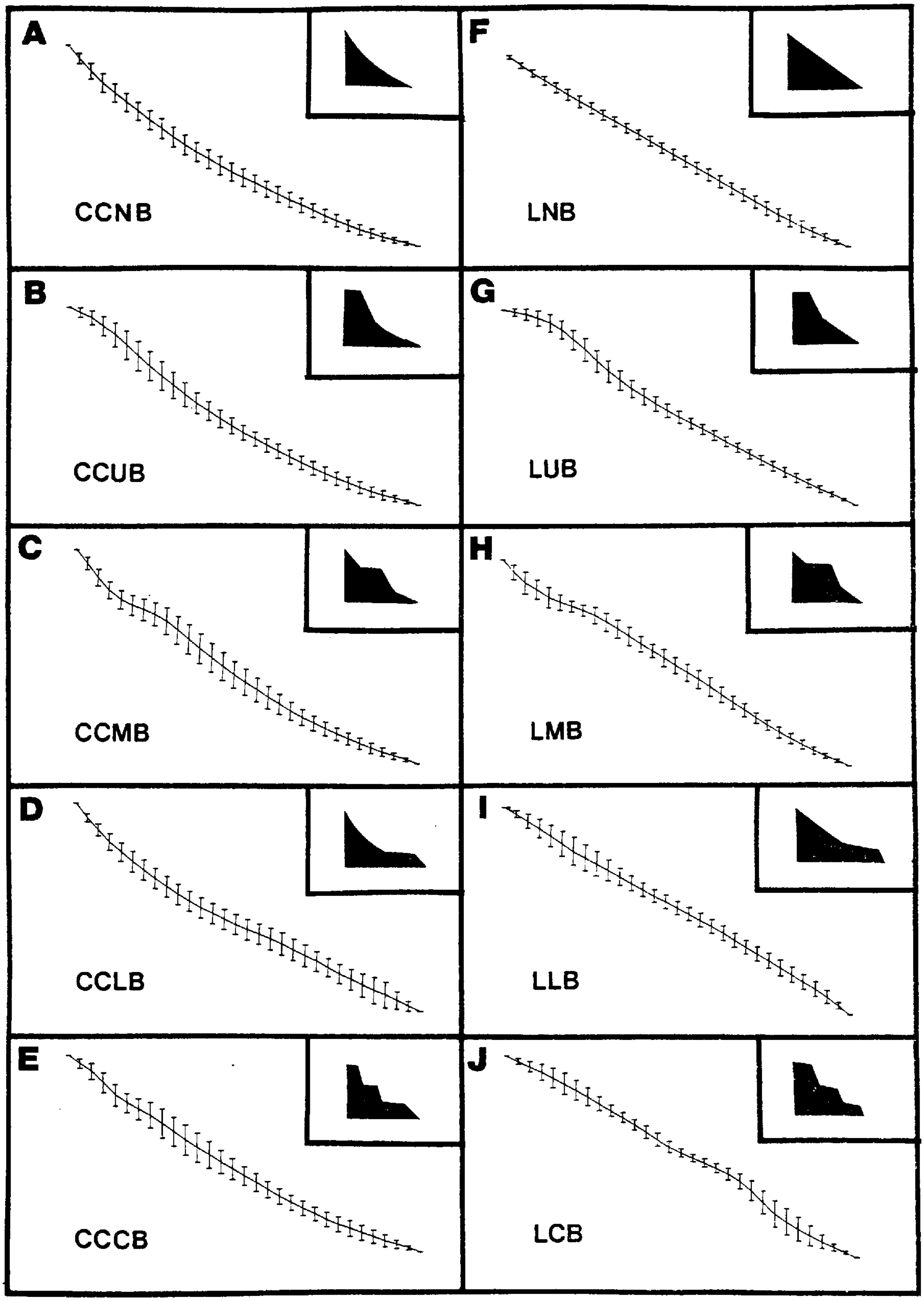
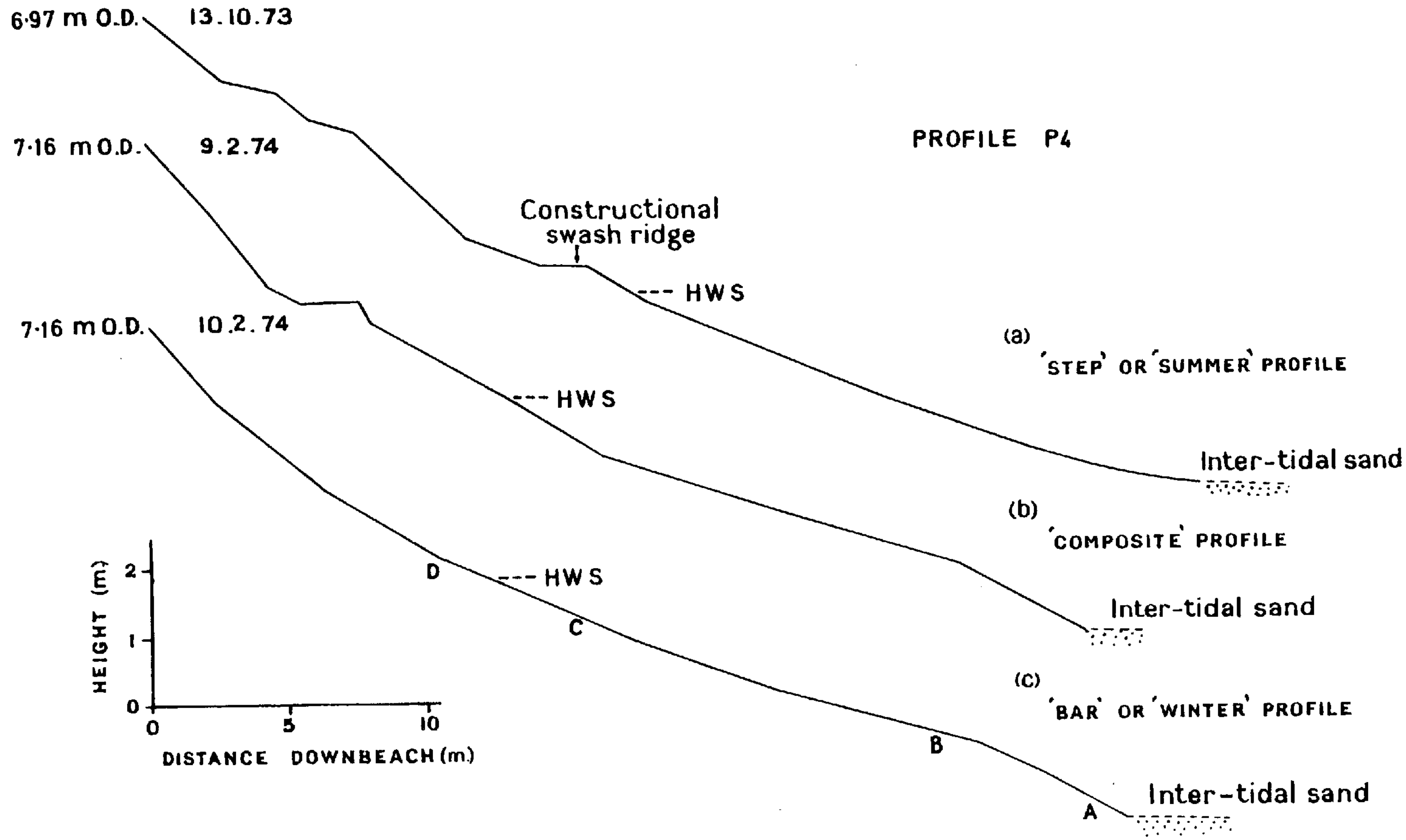


FIGURE 5.12 AVERAGE PROFILES COMPUTED USING ALL STANDARDISED PROFILES FOR EACH CONFIGURATION CATEGORY (Vertical bars indicate one standard deviation either side of the mean profile every 1m down-beach. An idealised model for each configuration is inset. Abreviations CCNB, CCUB etc. refer to configuration types indicated in the key to Table 5.2)



Step, bar and composite beach profiles as observed at Llanrhystyd

FIGURE 5.13 <u>ORFORD'S (1977) THREE-TYPE PROFILE CLASSIFICATION</u>

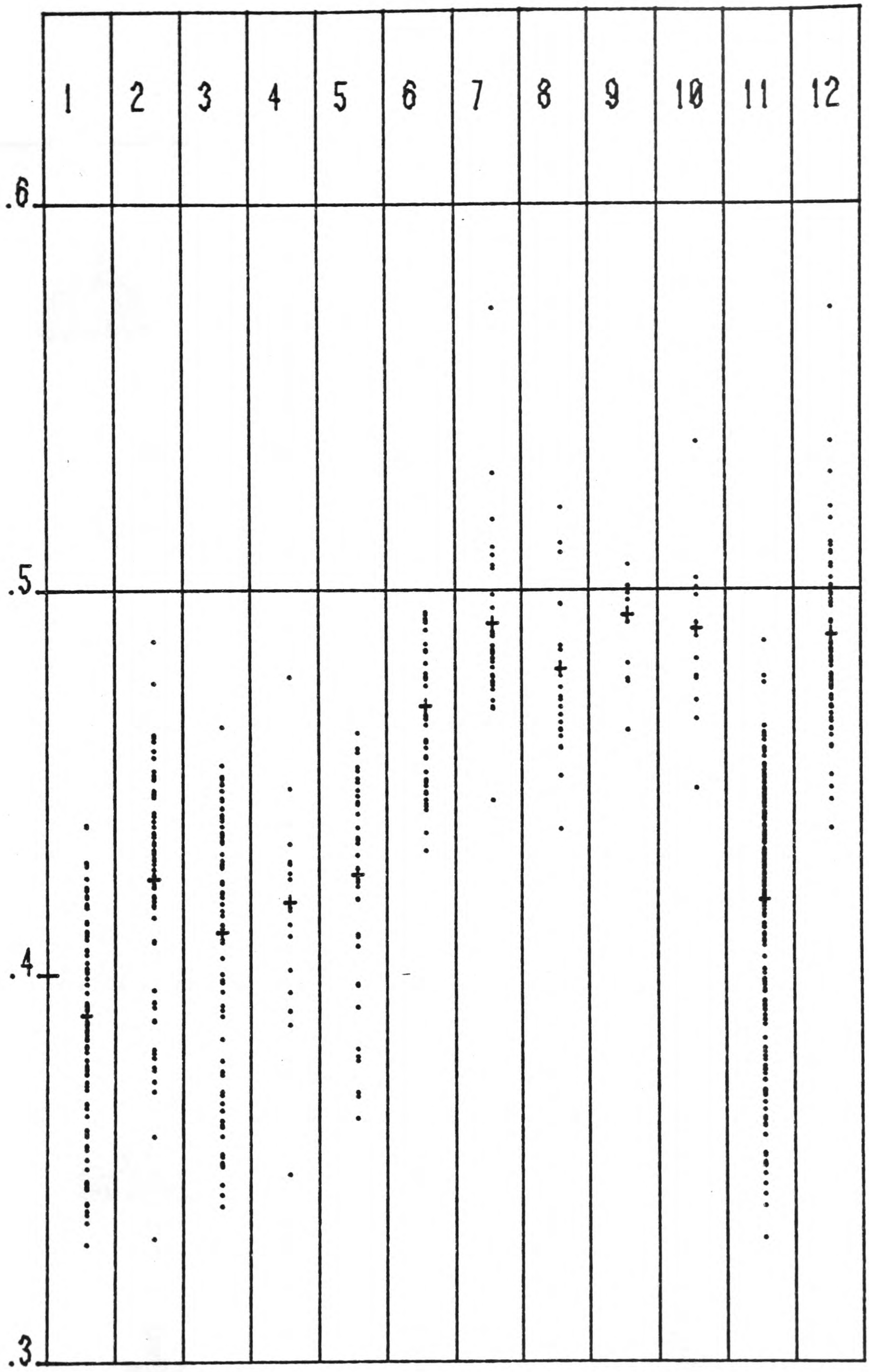


FIGURE 5.14 INTEGRALS PLOTTED FOR 12 CONFIGURATION GROUPINGS

(Each dot represents the integral value between 0 and 1 for each profile, and a + indicates the mean position for a configuration group. The numbers 1 to 10 are equivalent to the letters A to J in Figure 5.12, whereas 11 and 12 refer to all concave and linear profiles regardless of profile position, respectively - see section 5.5)

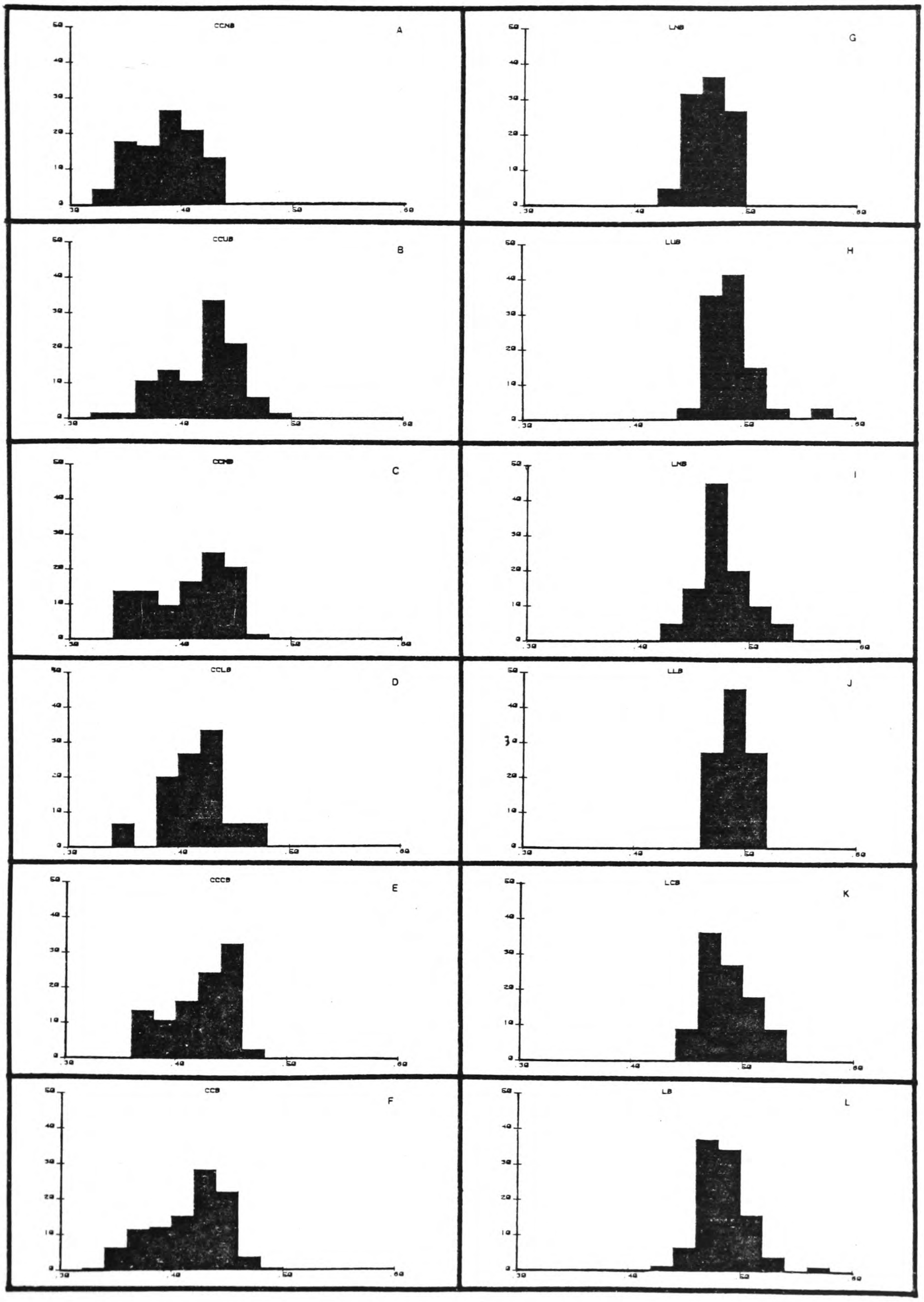
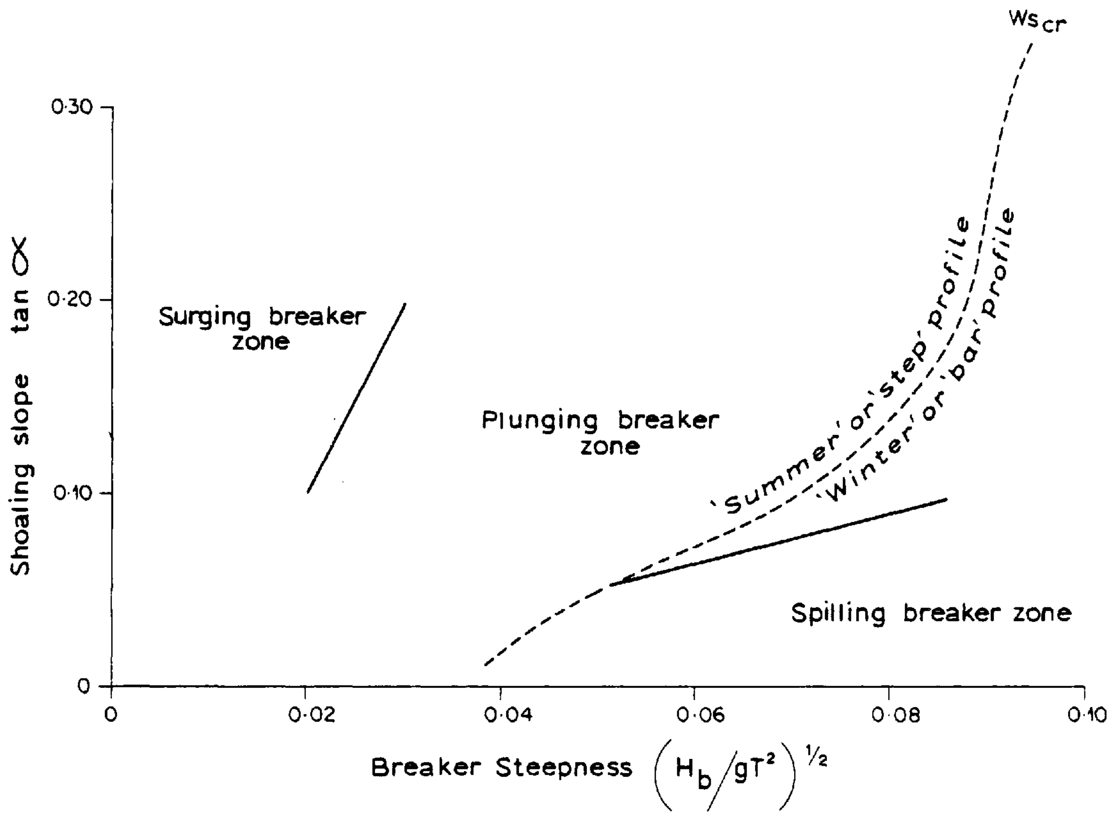


FIGURE 5.15 <u>CONFIGURATION GROUP INTEGRAL FREQUENCY HISTOGRAMS</u> (see section 5.5)

	CCNB	CCUB	CCMB	CCLB	CCCB	LNB	LUB	LMB	LLB	LCB	CCB
CCUB	●										
CCMB	●	○									
CCLB	●										
CCCB	●		○								
LNB	$\boxed{\bullet}$	●	●	●	●						
LUB	●	●	●	●	●	●					
LMB	●	●	●	●	●		○				
LLB	●	●	●	●	●	●		○			
LCB	●	●	●	●	●	○					
CCB	$\boxed{\bullet}$					$\boxed{\bullet}$	●	●	●	●	
LB	$\boxed{\bullet}$	●	●	●	●	$\boxed{\bullet}$					$\boxed{\bullet}$

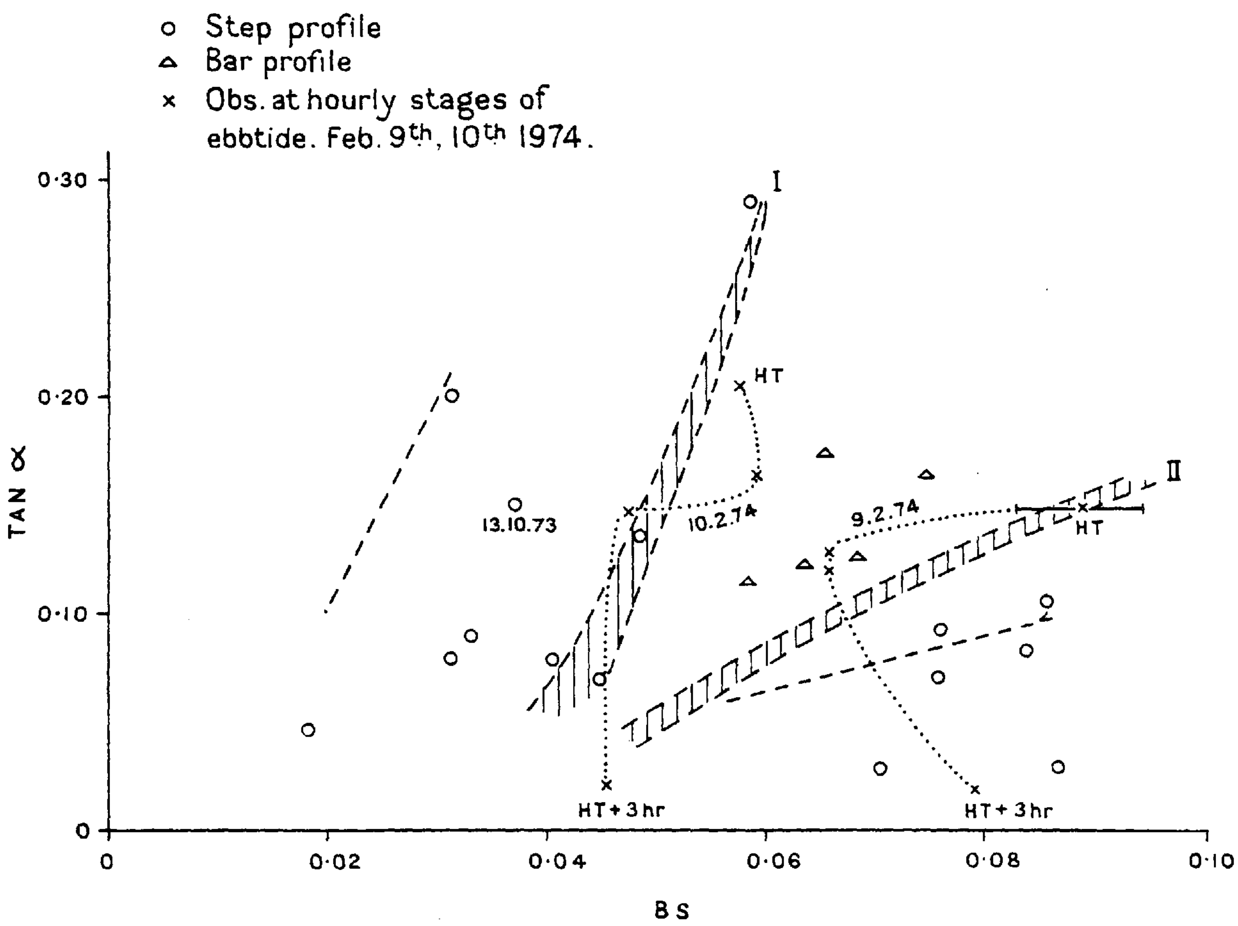
FIGURE 5.16 RESULTS OF MANN-WHITNEY U TEST ON CONFIGURATION GROUP INTEGRALS

(Abreviations CCNB, CCUB etc. refer to configuration types indicated in the key to Table 5.2. A black circle indicates a significant difference between two populations of integrals at $p \leq 0.001$. A white circle indicates $p \leq 0.01$. Key results have been emphasised within a square - see section 5.5)



The relationship between breaker type and beach profile type as a function of breaker steepness and shoaling slope

FIGURE 5.17 GALVIN'S (1968) BREAKER TYPE BOUNDARIES (From Orford, 1977)



Amended relationship between breaker steepness and beach slope for discrimination of beach profile type based on Llanrhystyd data

FIGURE 5.18 <u>ORFORD'S (1977) BREAKER STEEPNESS BOUNDARIES</u>

(The fine dashed lines represent Galvin's surge-plunge and plunge-spill boundaries. The shaded zones I and II indicate the estimated lower and upper Bs boundaries on the basis of empirical observations of step and bar profiles at Llanrhystyd.)

FIGURES 5.19A-D, 5.20A-D, 5.21A-F and 5.22A-F

These show profiles obtained for each of the 20 cross-sections (Table 5.1) plotted in a three-dimensional format. As such, each diagram represents a time-lapse record of the morphological changes observed along each cross-section. The time interval between each profile in Figures 5.19A-D and 5.20A-D is one spring-neap-spring tidal cycle (circa 14 days), whereas in Figures 5.21A-F and 5.22A-F this interval is approximately 24 hours.

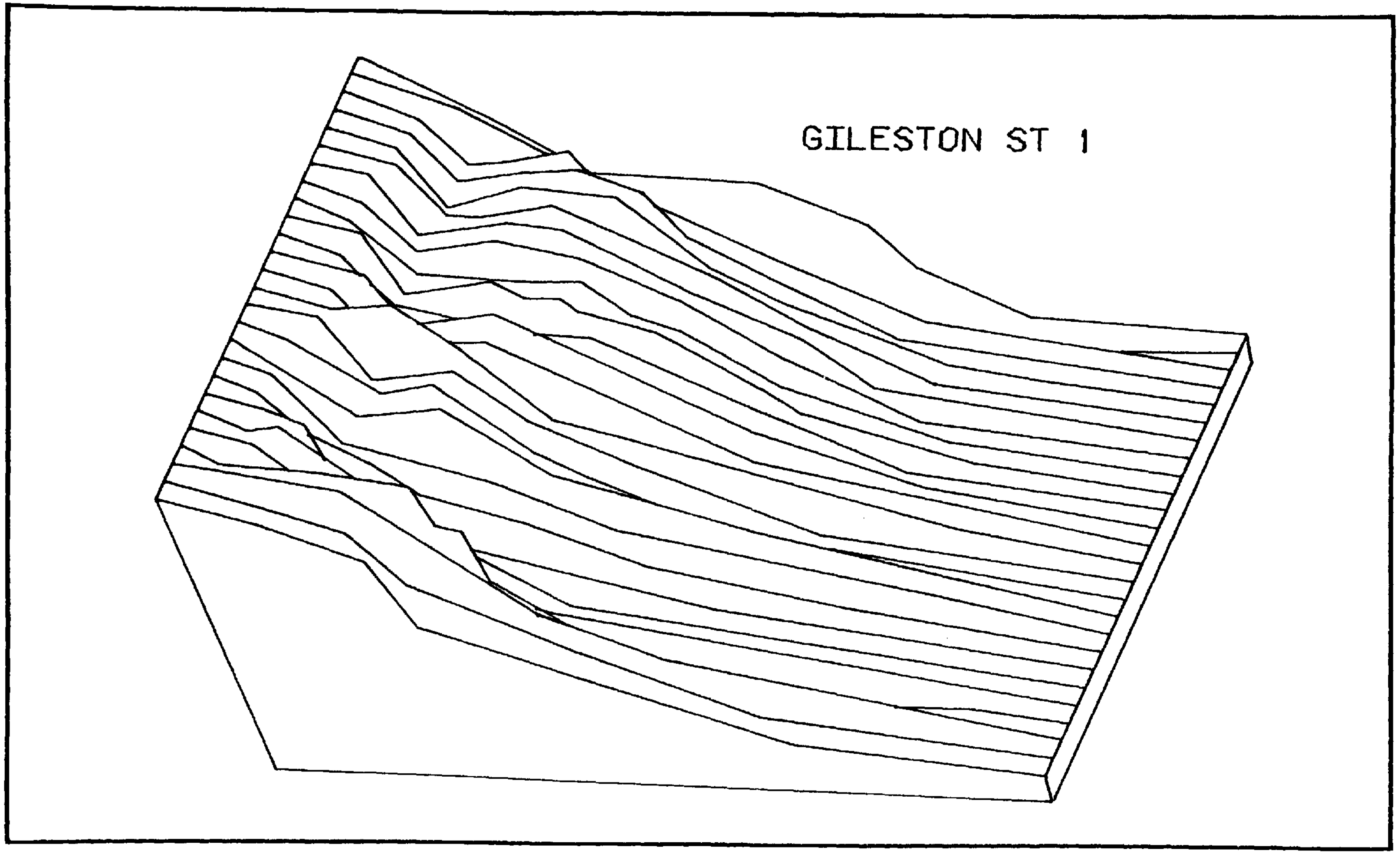


FIGURE 5.19A

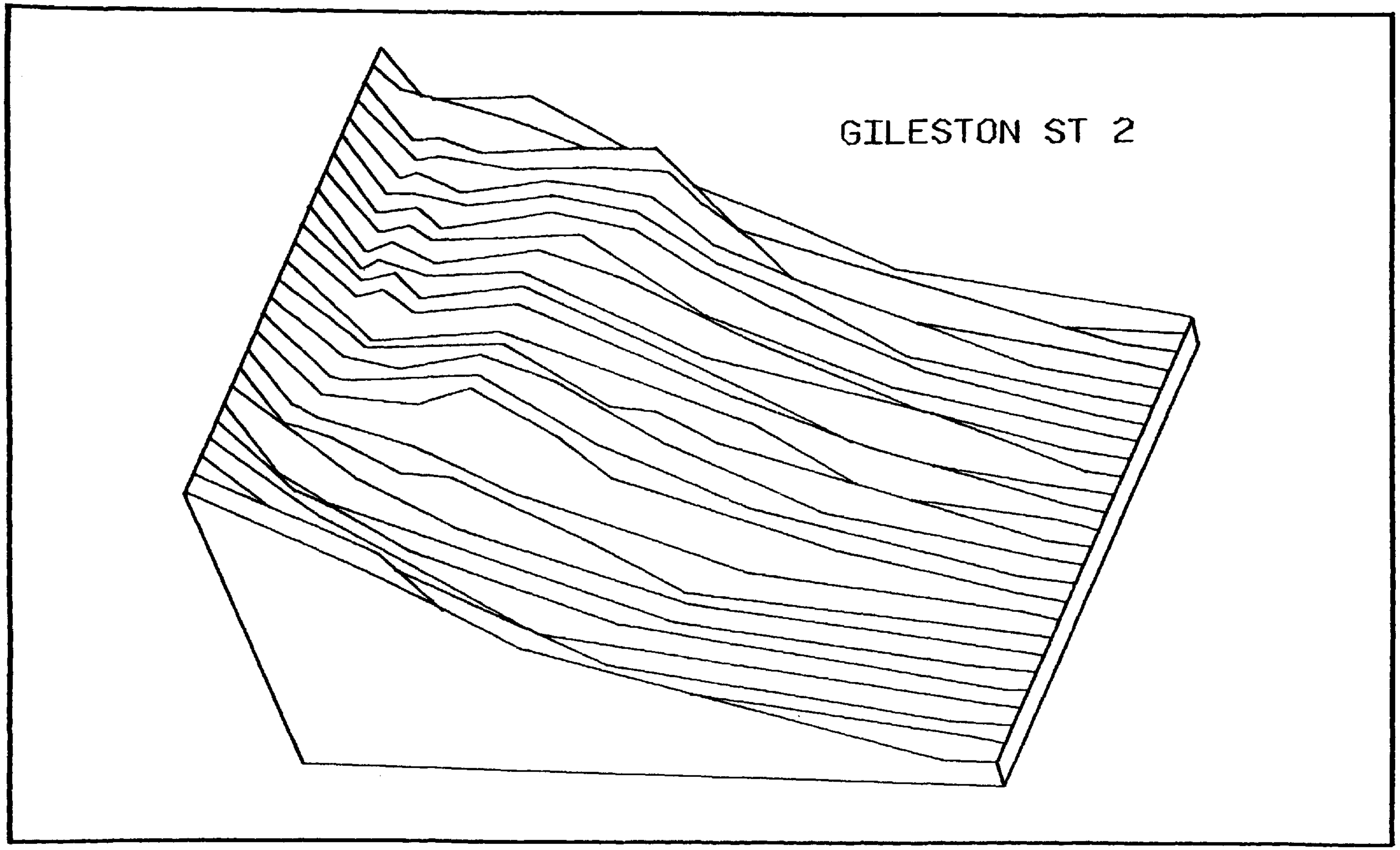


FIGURE 5.19B

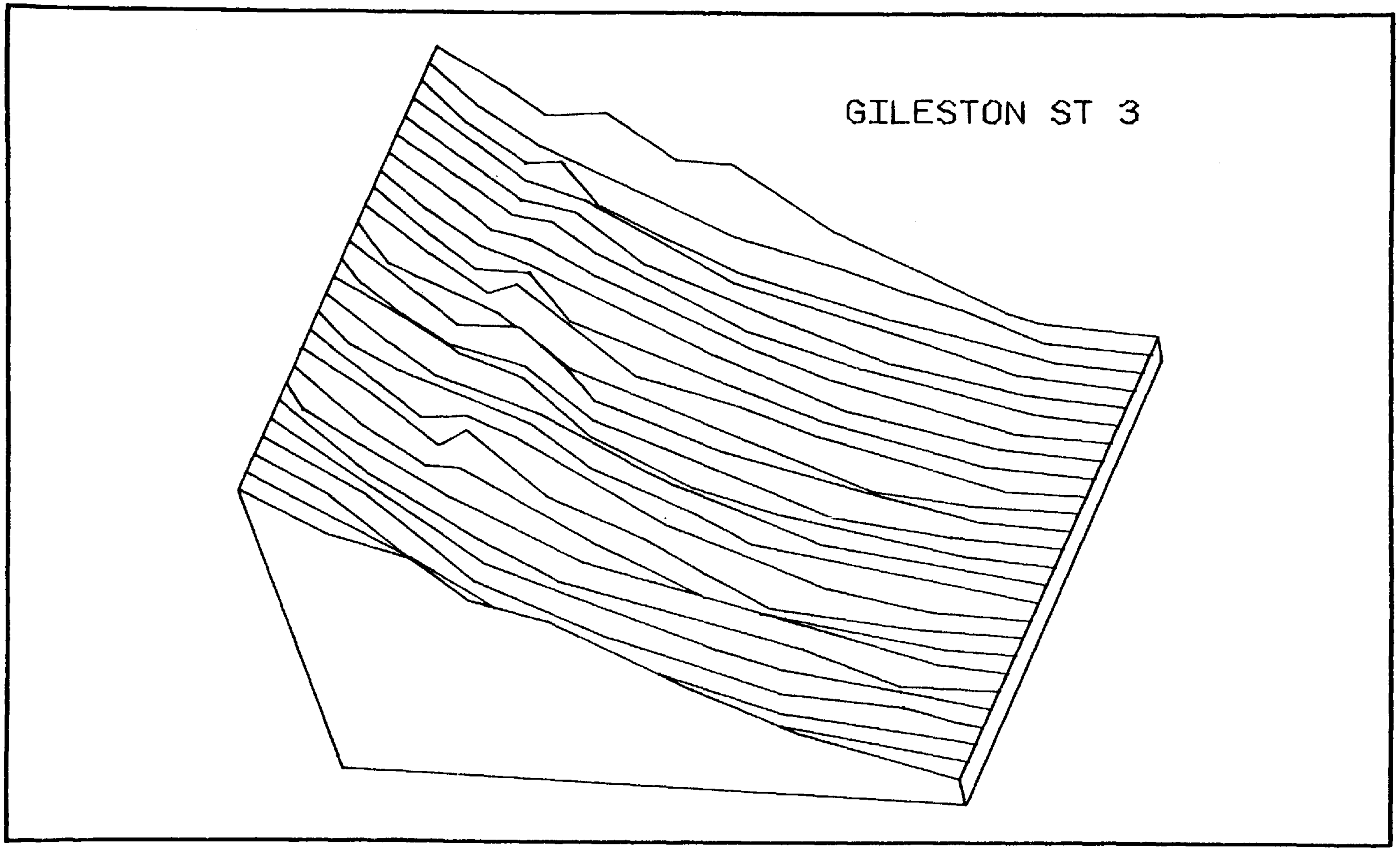


FIGURE 5.19C

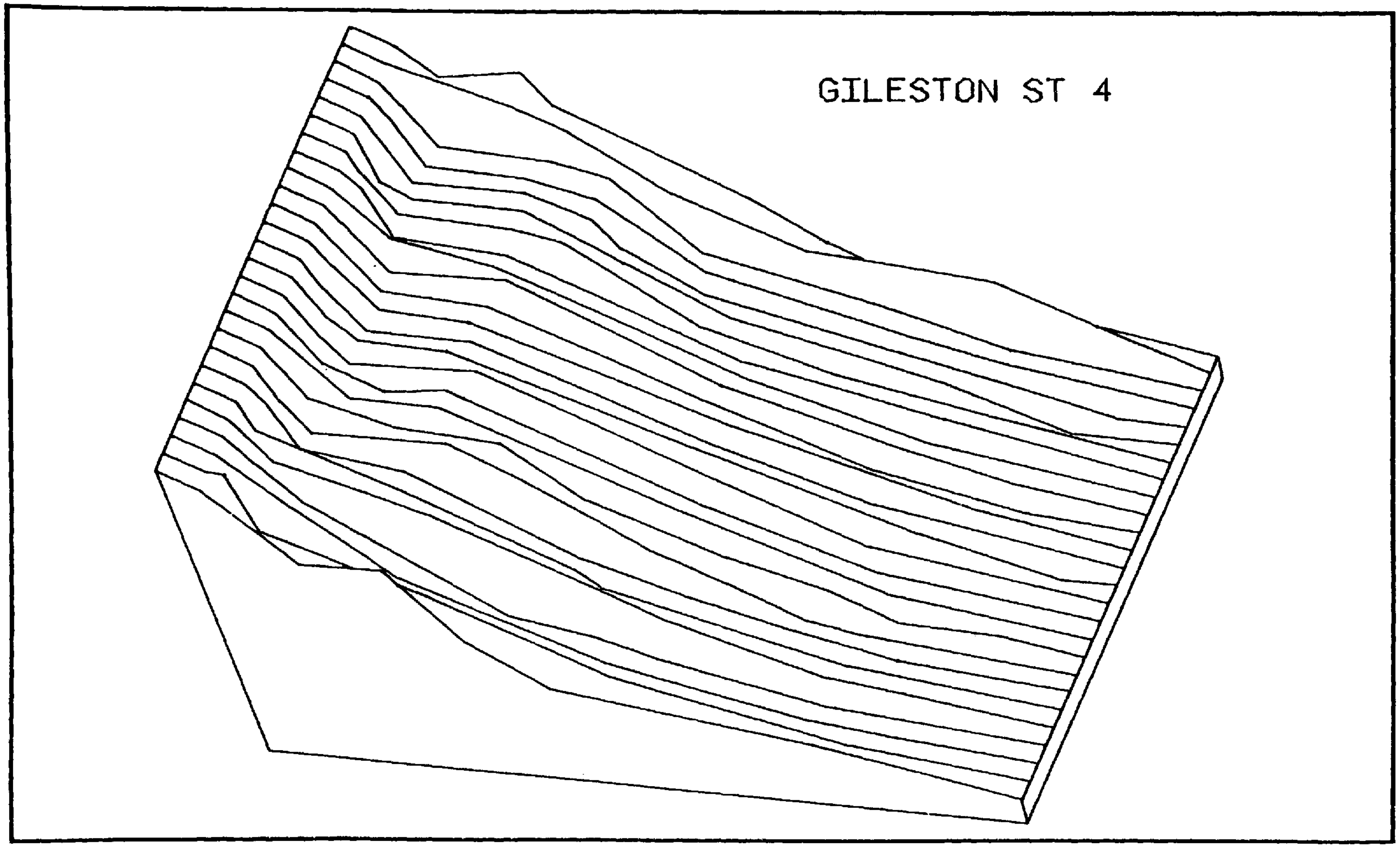


FIGURE 5.19D

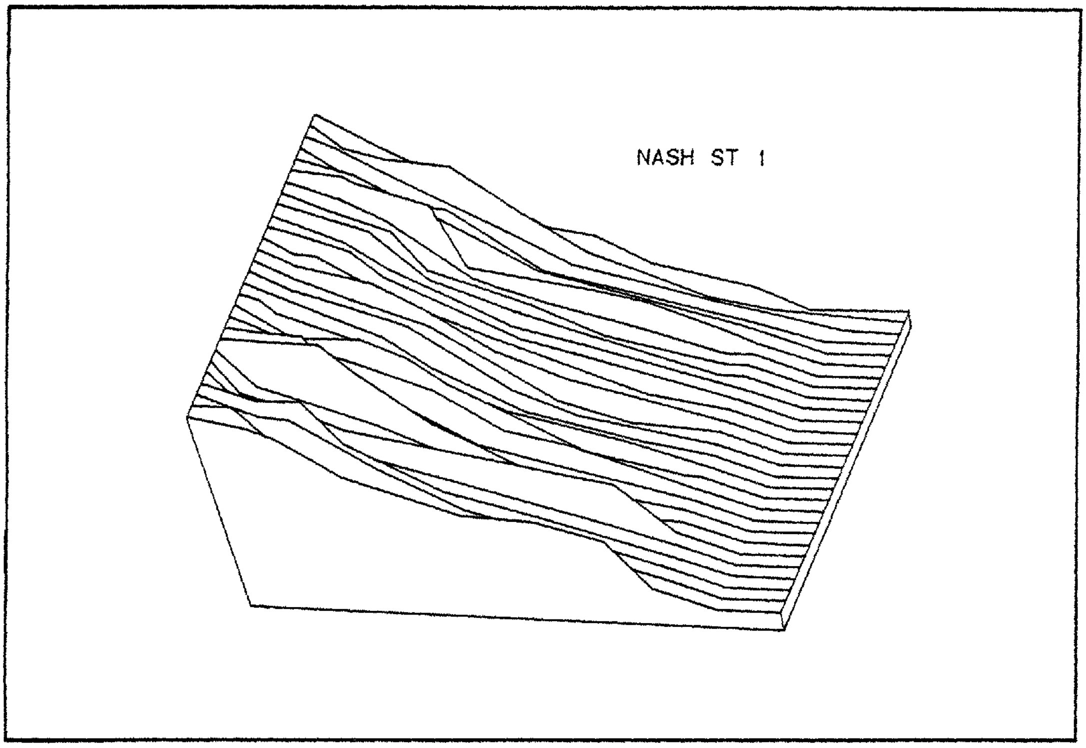


FIGURE 5.20A

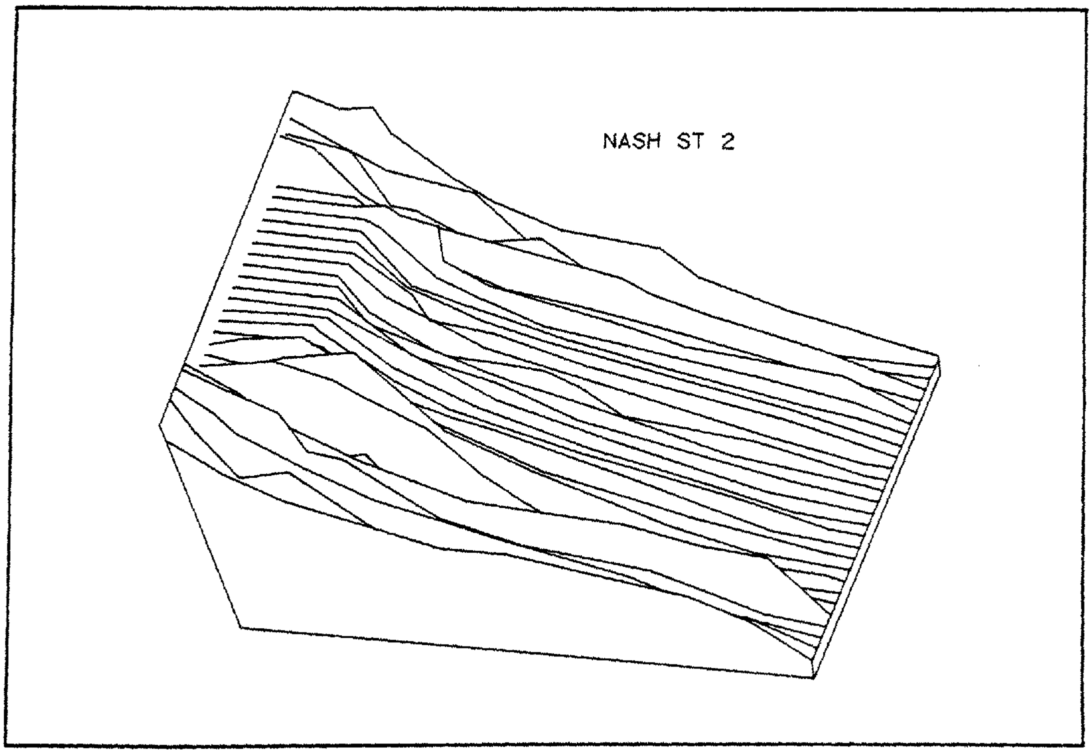


FIGURE 5.20B

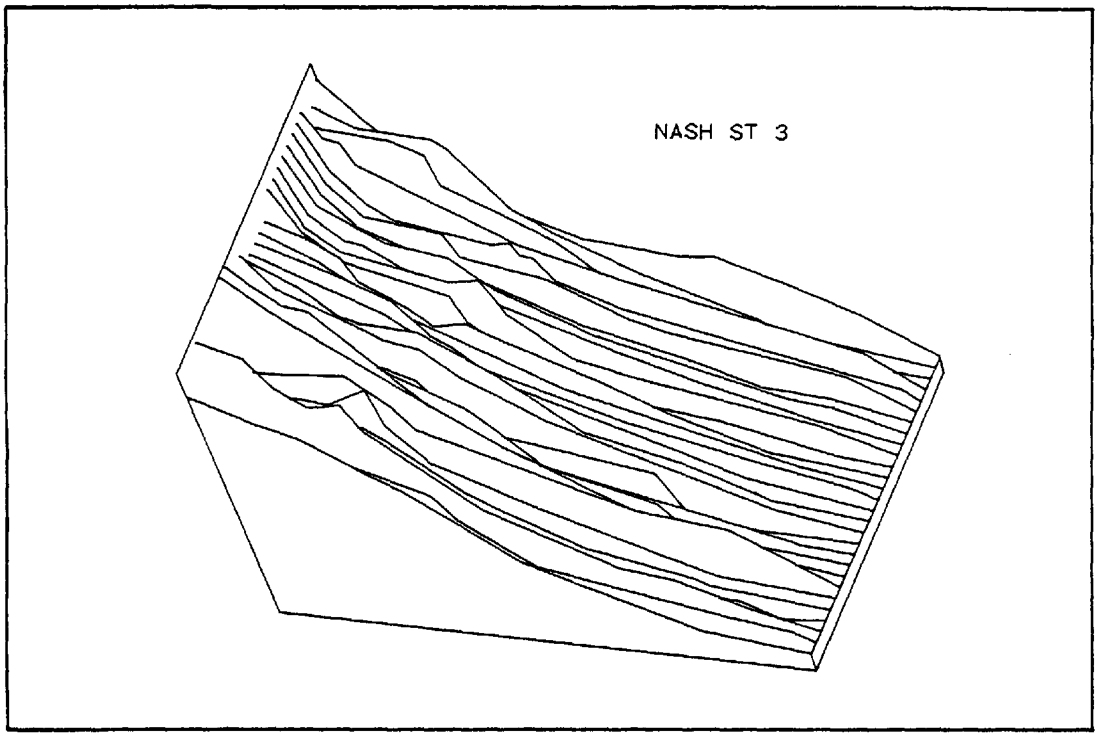


FIGURE 5.20C

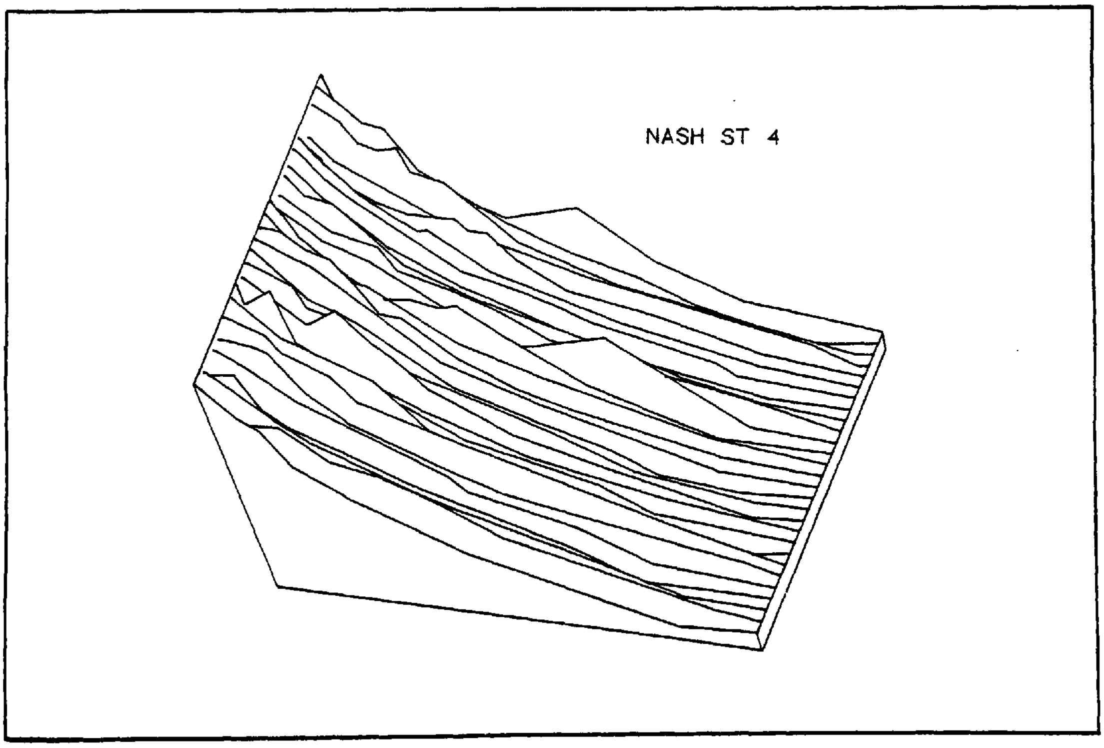


FIGURE 5.20D

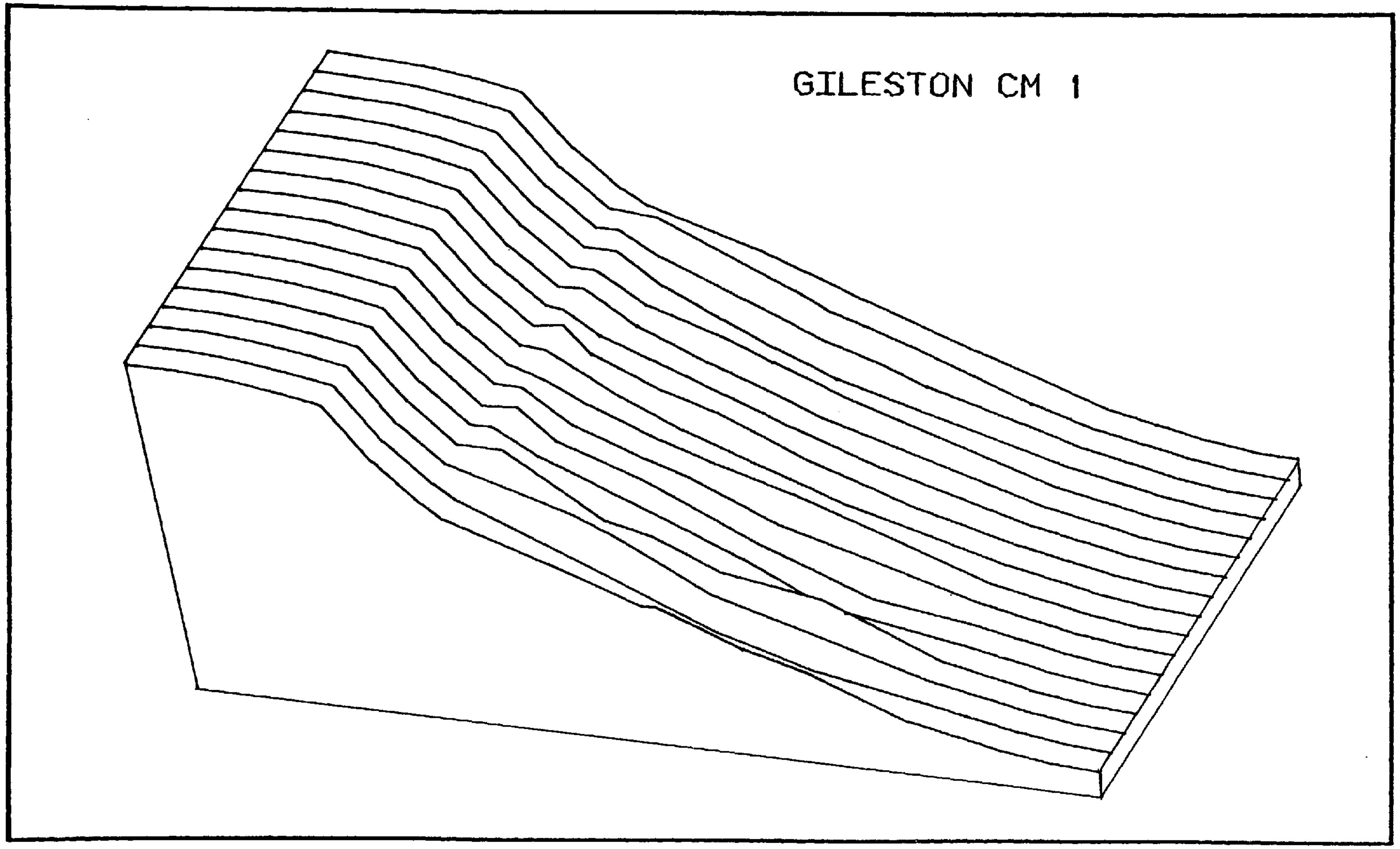


FIGURE 5.22A

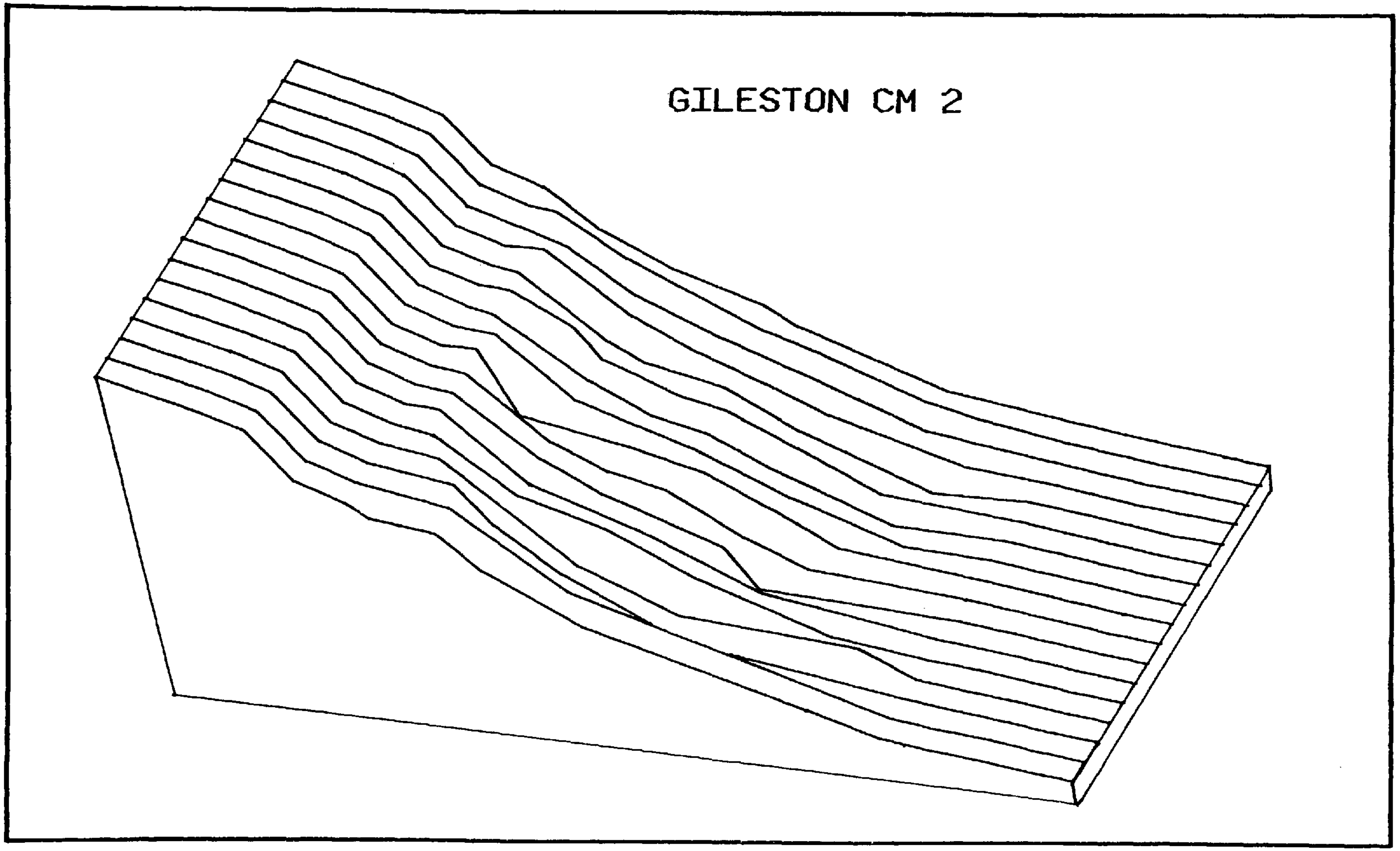


FIGURE 5.22B

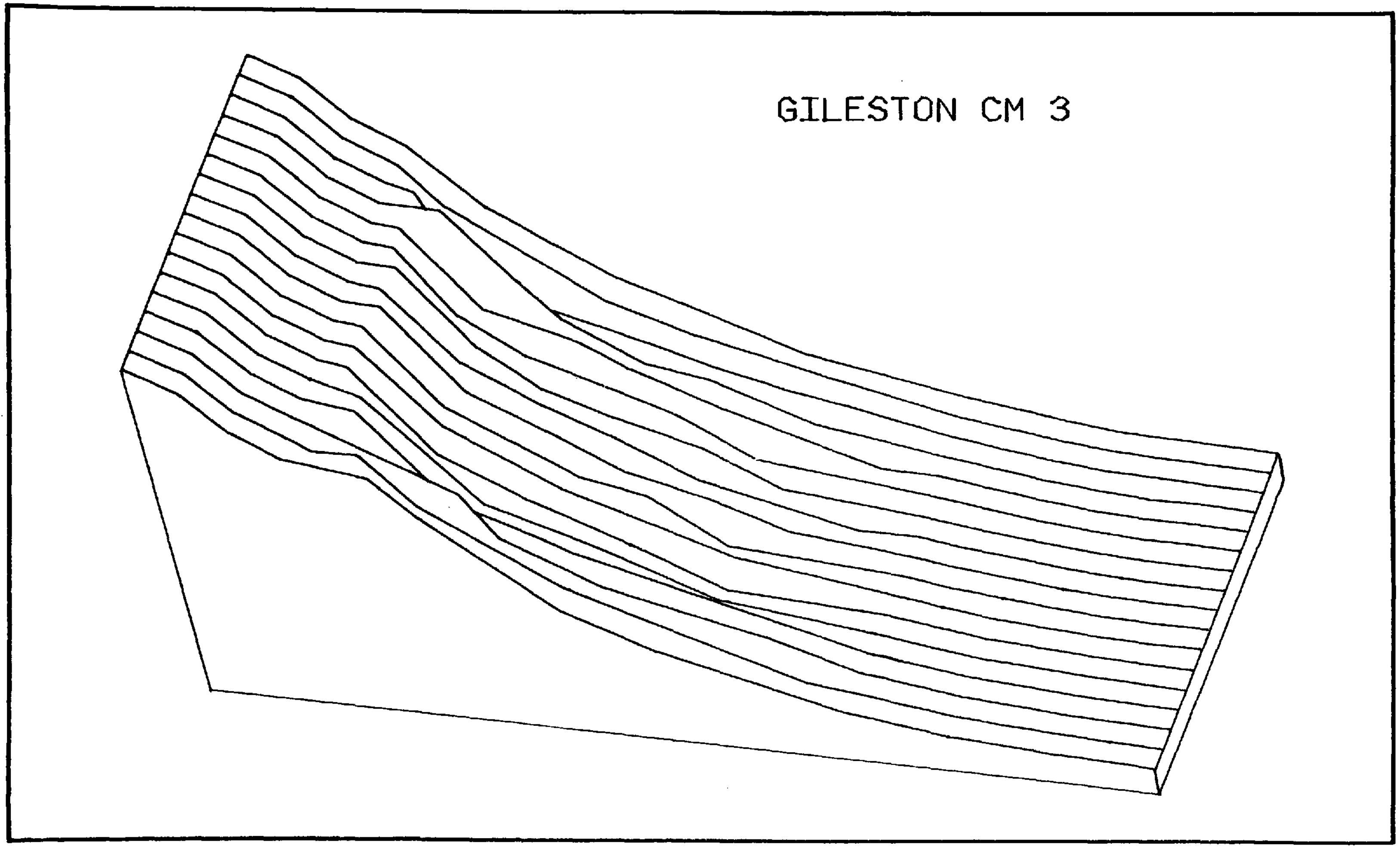


FIGURE 5.22C

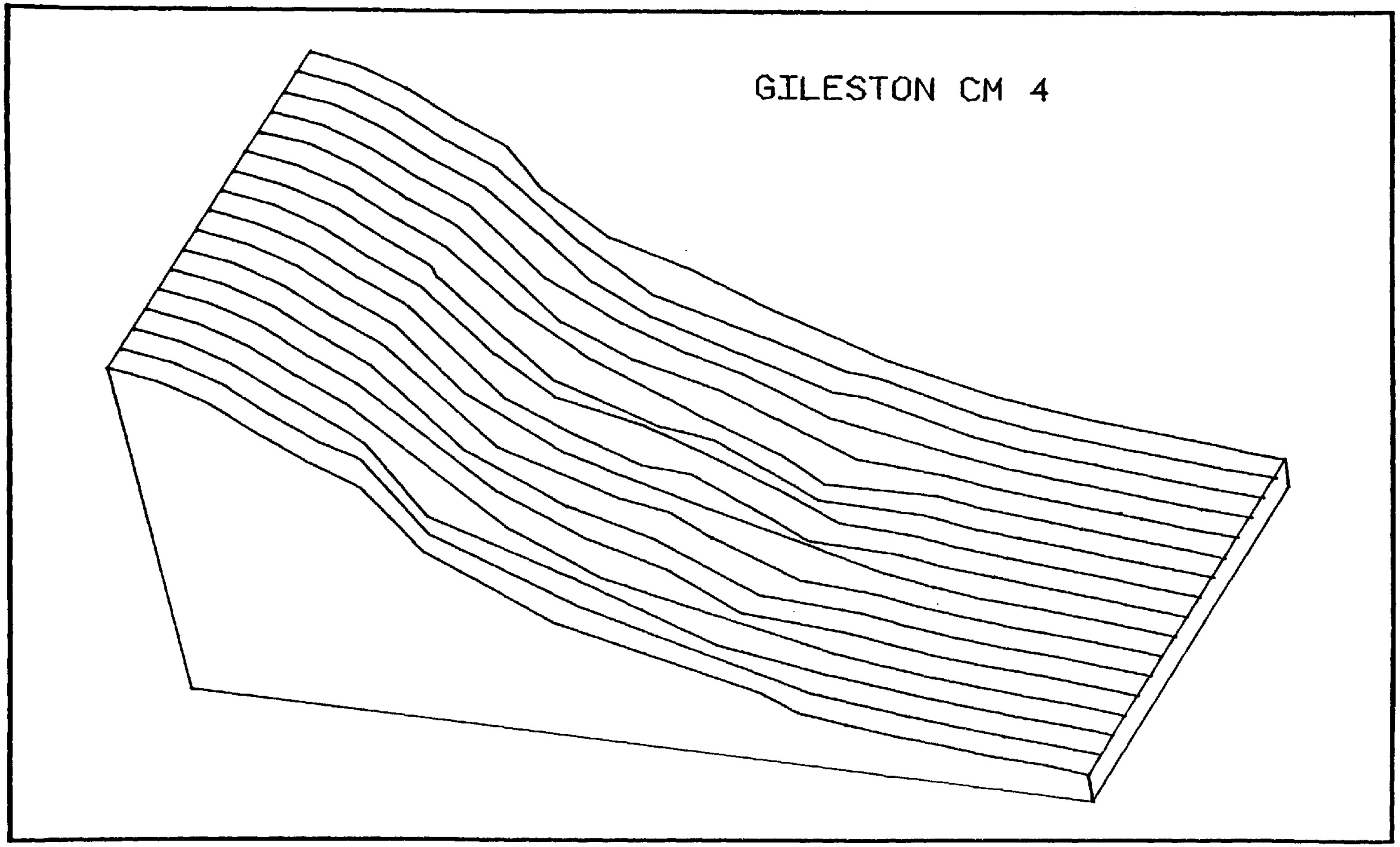


FIGURE 5.22D

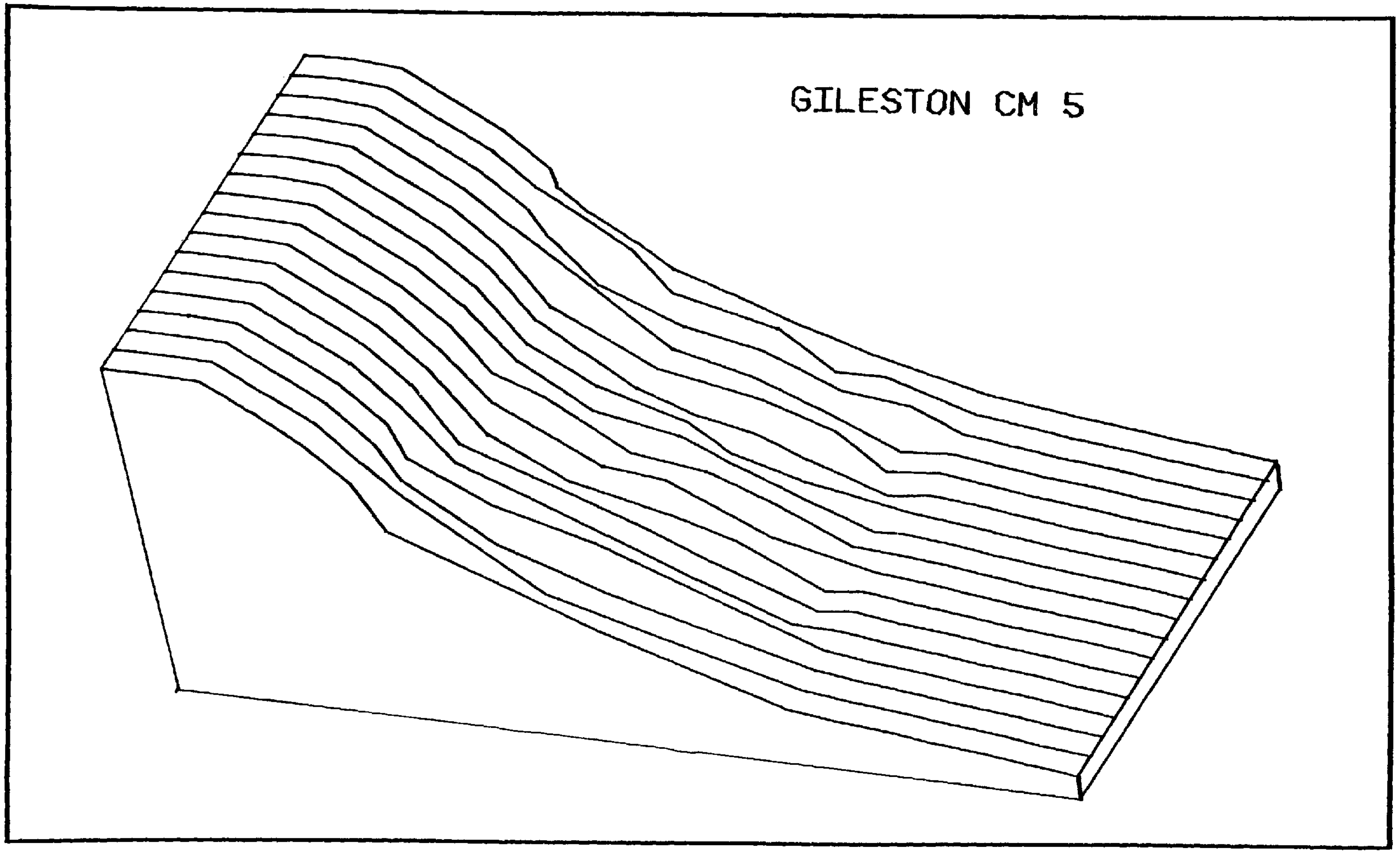


FIGURE 5.22E

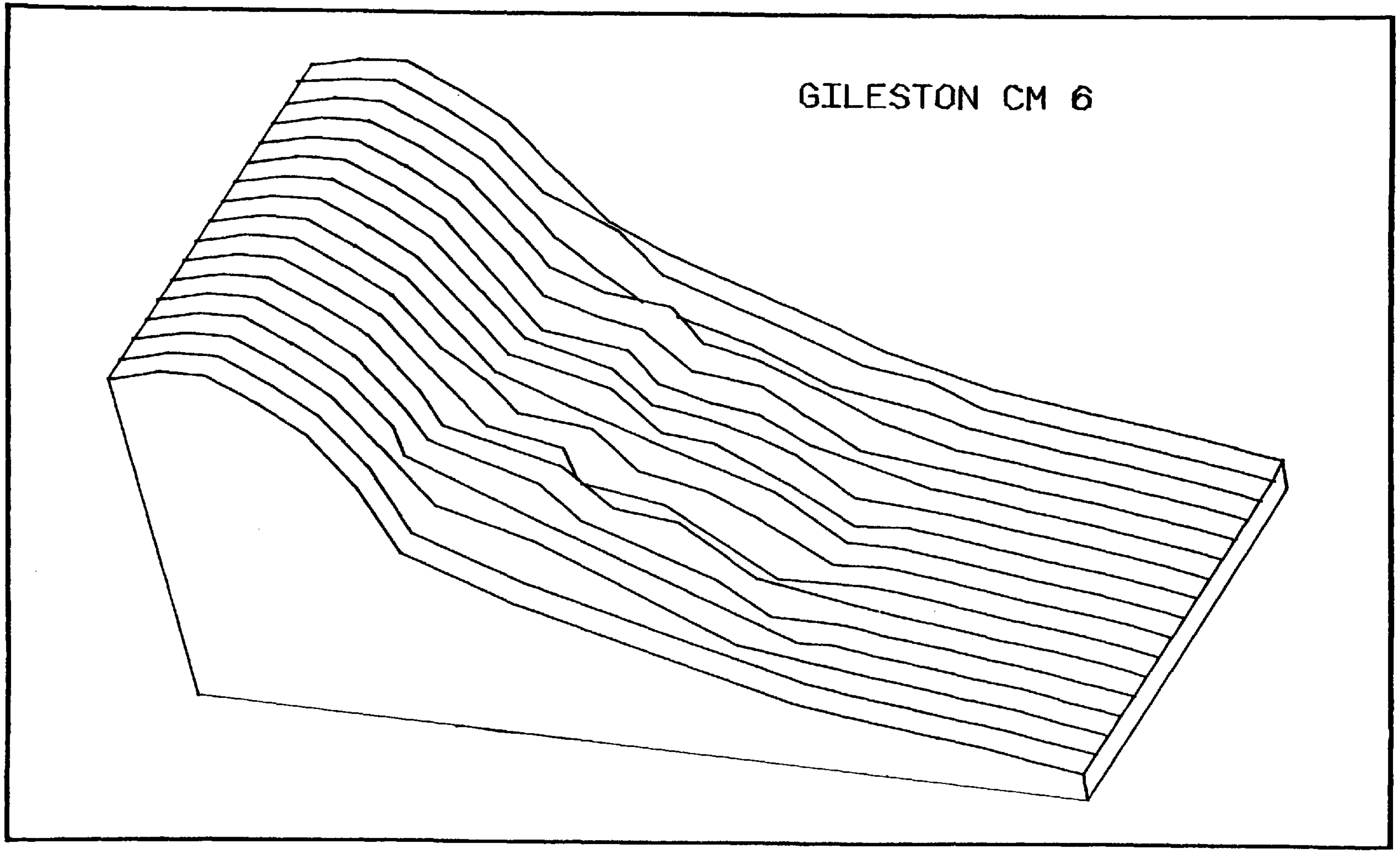


FIGURE 5.22F

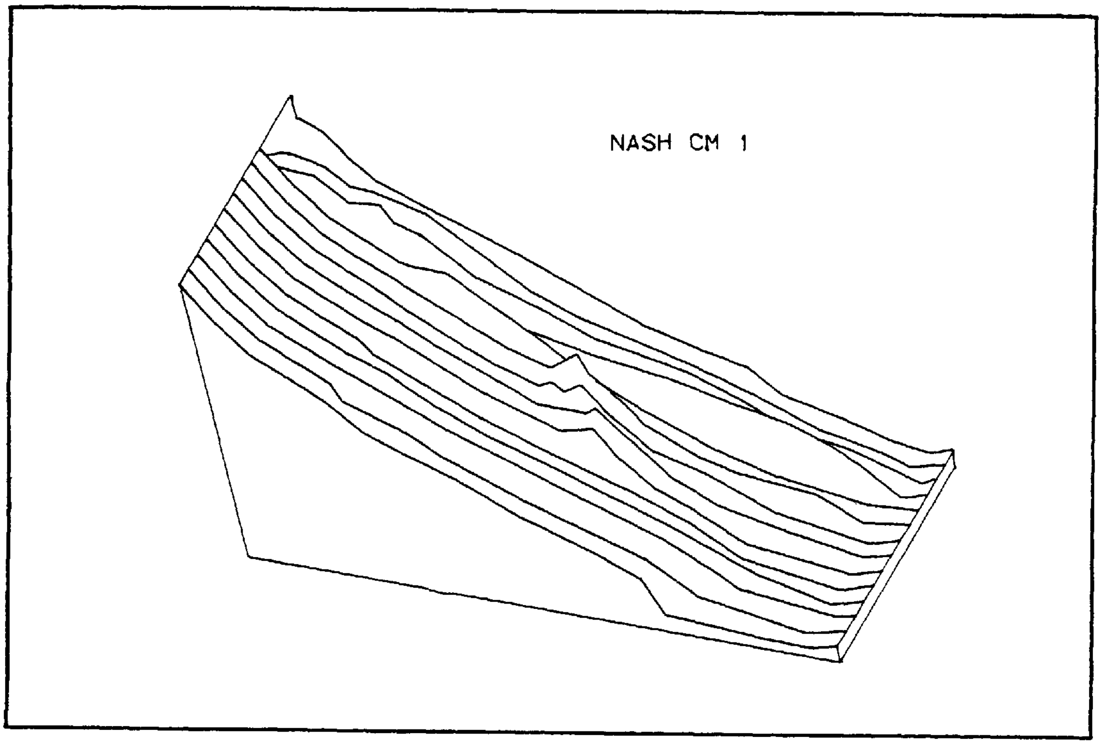


FIGURE 5.21A

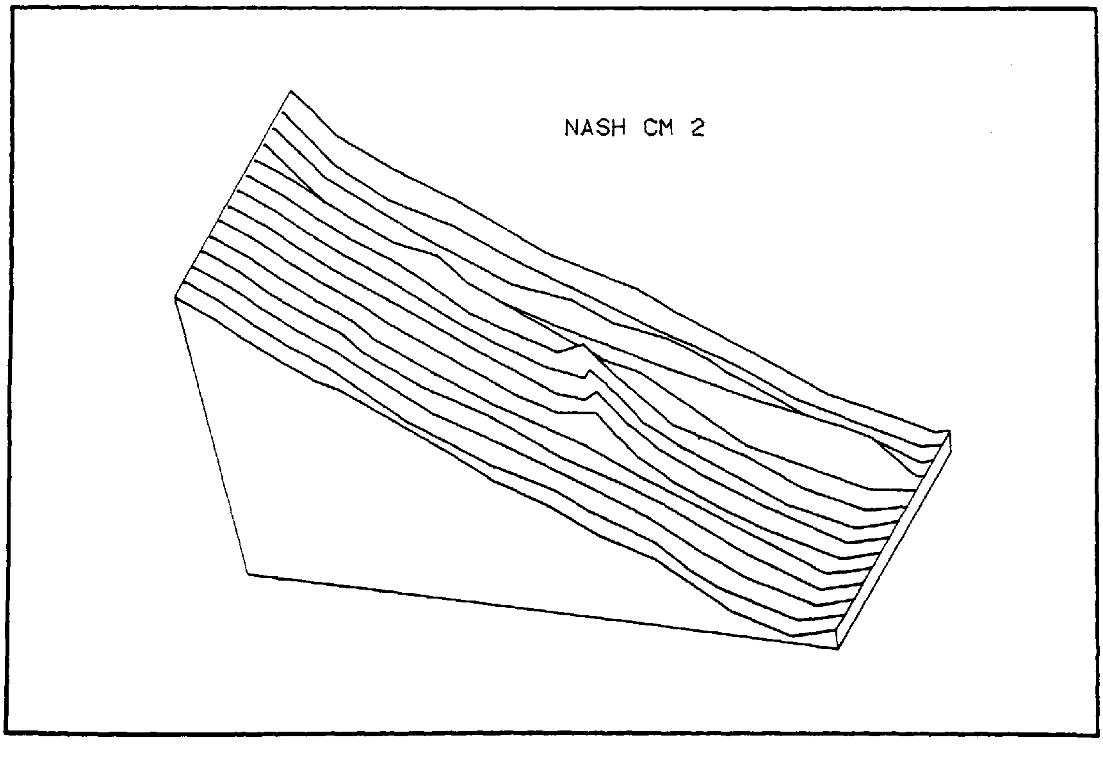


FIGURE 5.21B

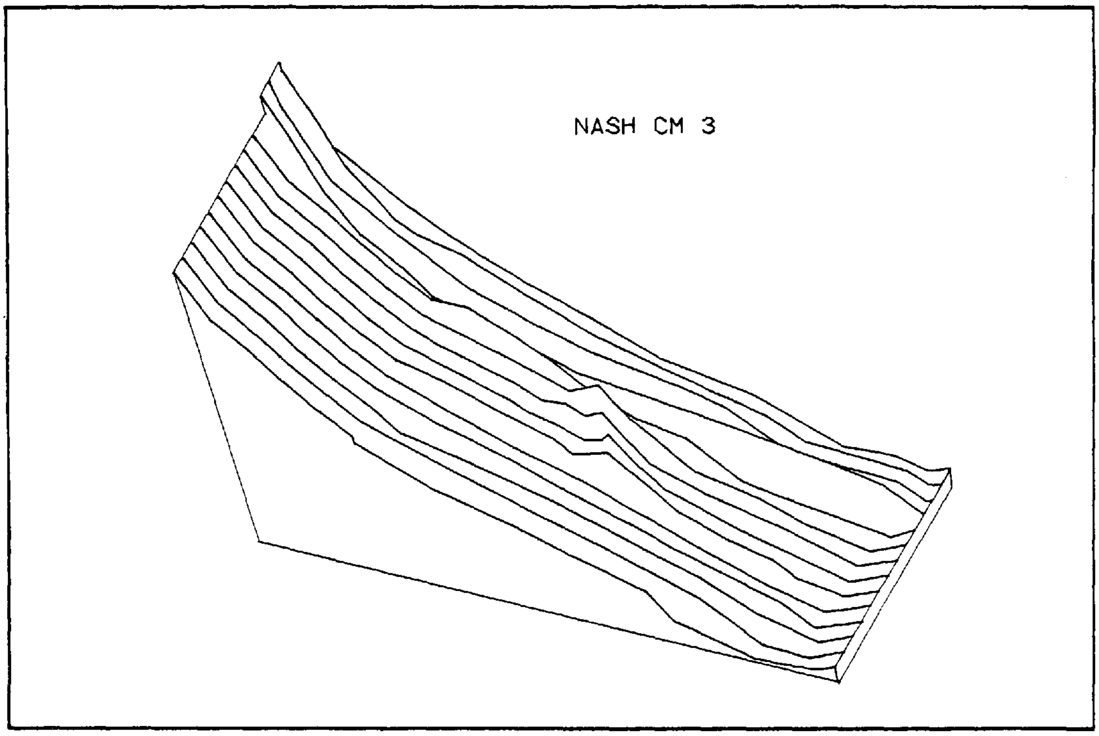


FIGURE 5.21C

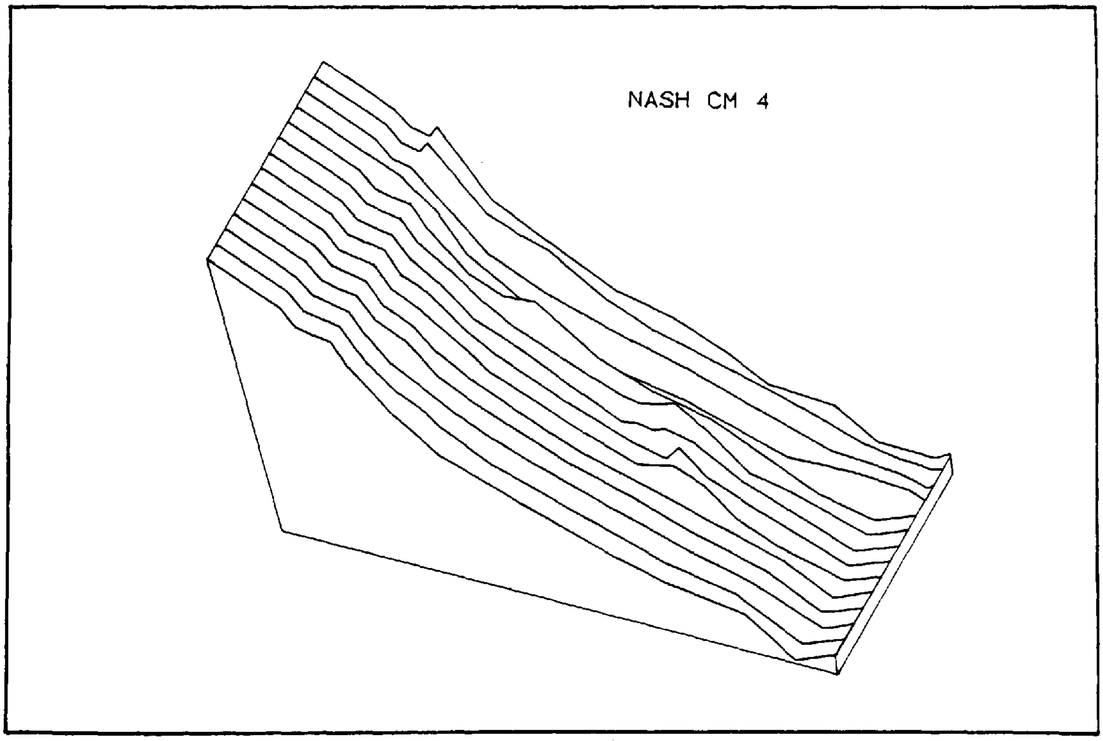


FIGURE 5.21D

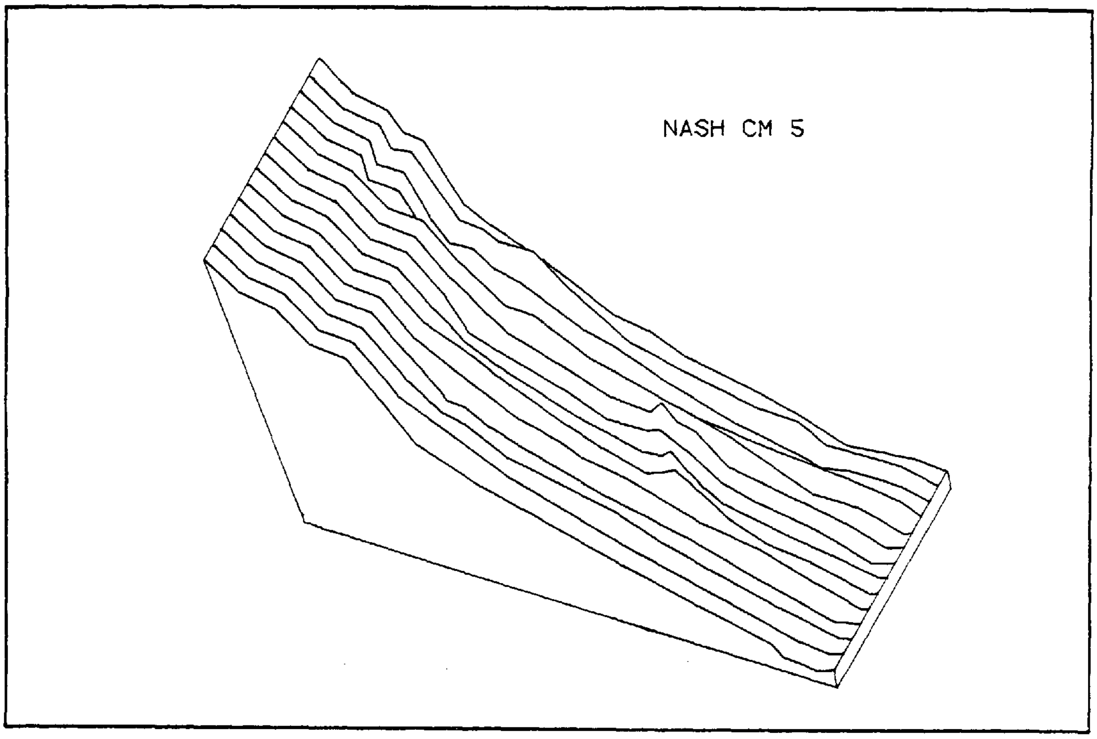


FIGURE 5.21E

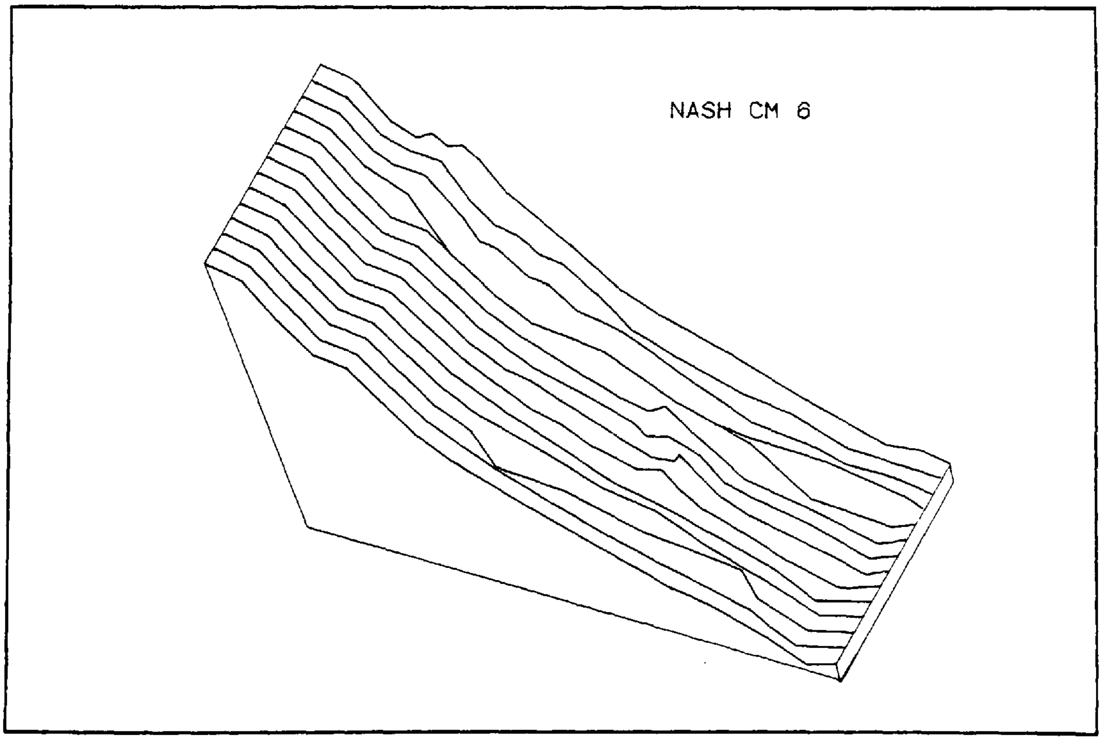


FIGURE 5.21F

FIGURES 5.23A-Q and 5.24A-N

These represent three-dimensional reconstructions of the actual beach face surveyed on Gileston and Nash beaches respectively. Each block diagram shows the morphology of all six 'temporary' cross-sections as recorded on one daily survey.

FIGURE 5.23A

GILESTON DAY 1

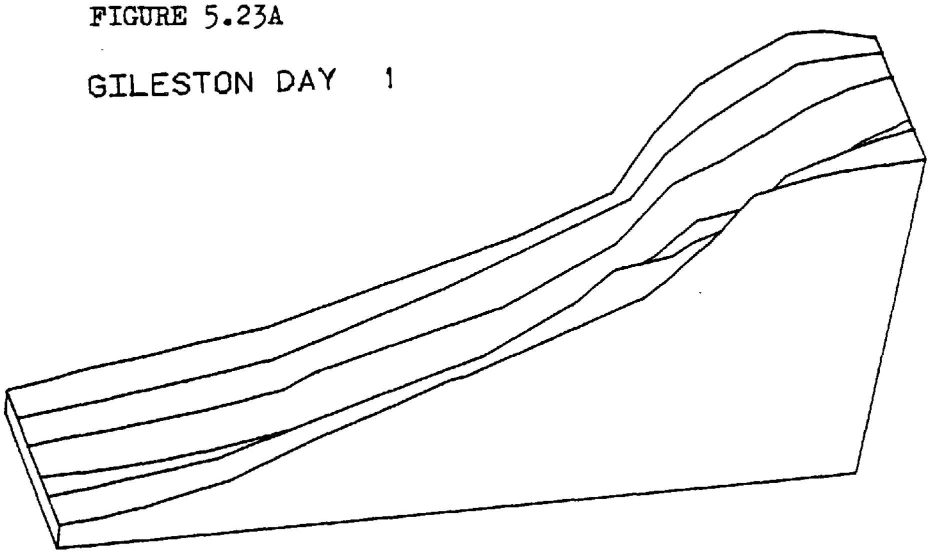


FIGURE 5.23B

GILESTON DAY 2

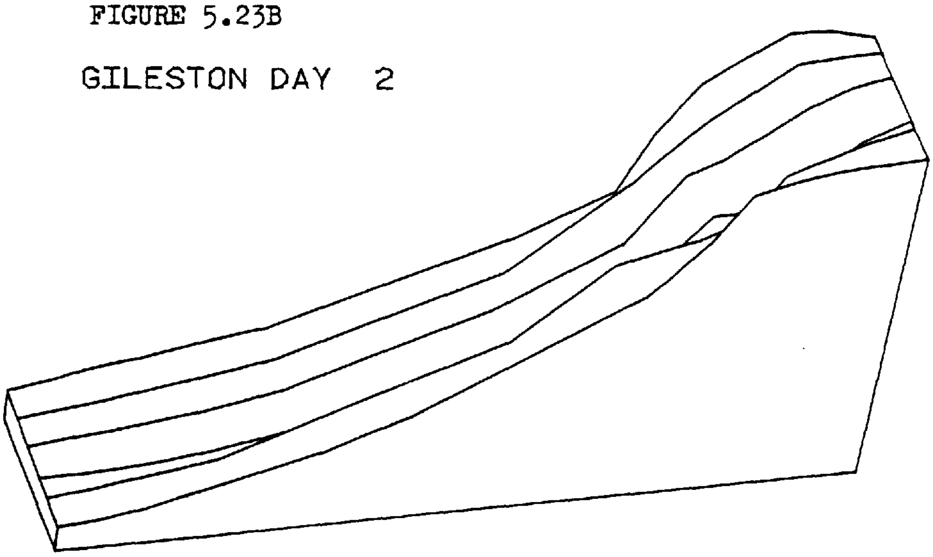


FIGURE 5.23C

GILESTON DAY 3

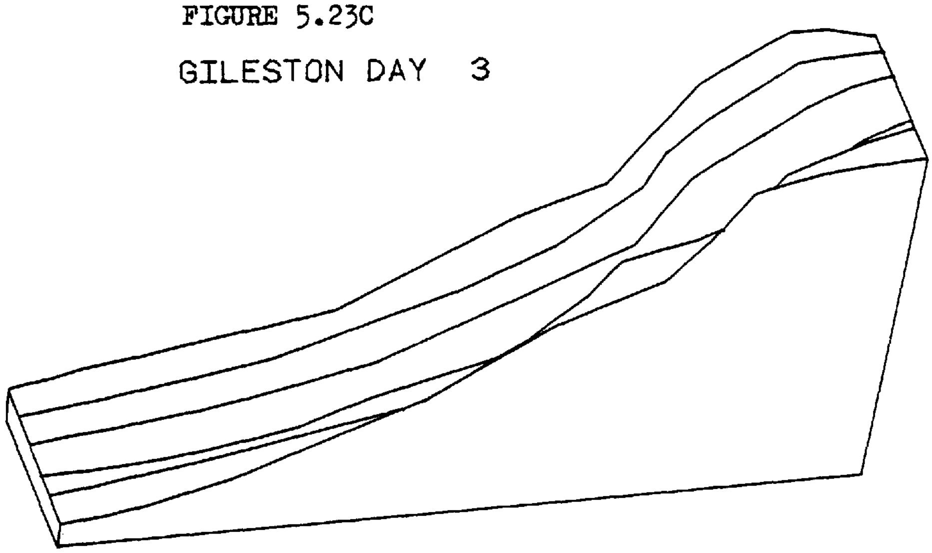


FIGURE 5.23D

GILESTON DAY 4

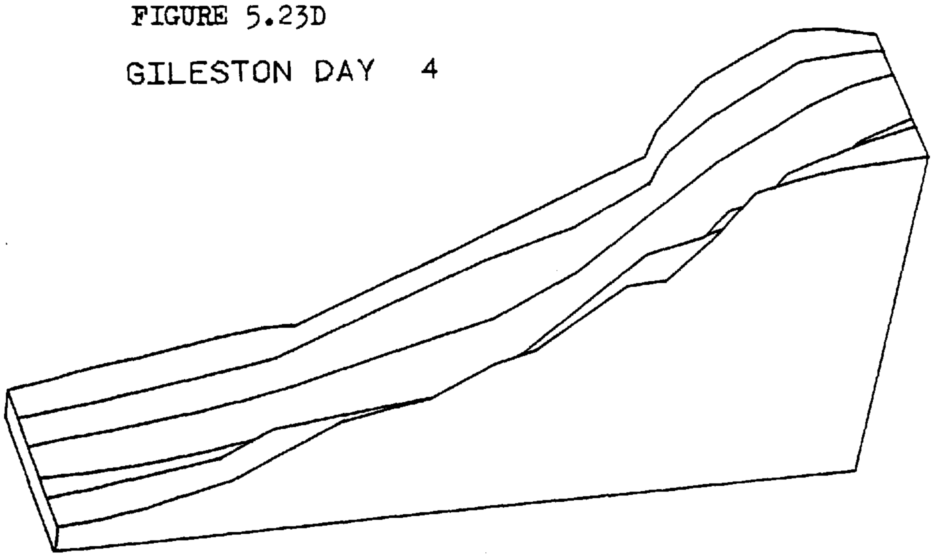


FIGURE 5.23E

GILESTON DAY 5

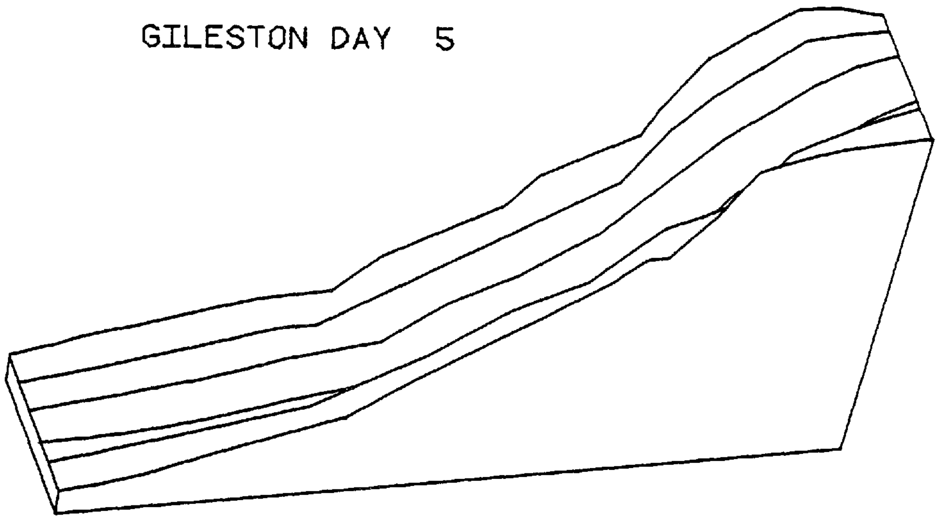


FIGURE 5.23F

GILESTON DAY 6

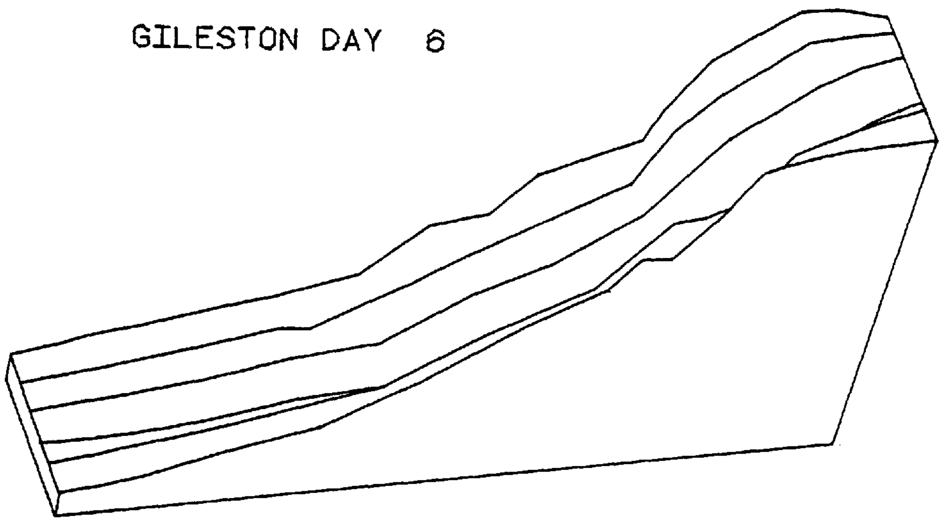


FIGURE 5.23G

GILESTON DAY 7

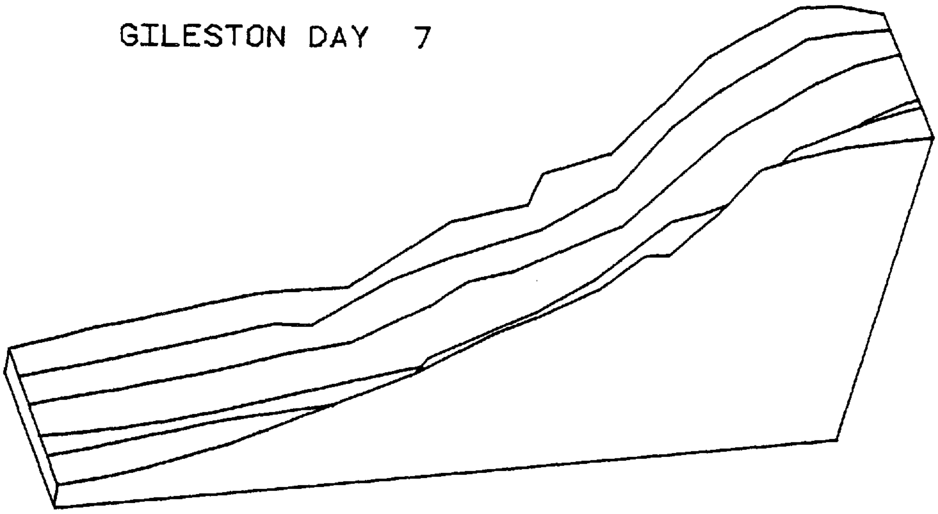


FIGURE 5.23H

GILESTON DAY 8

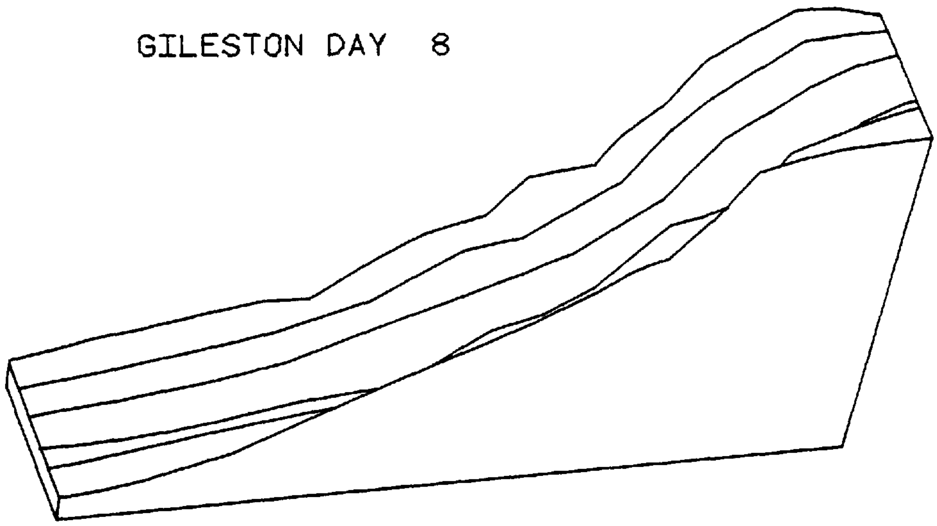


FIGURE 5.23I

GILESTON DAY 9

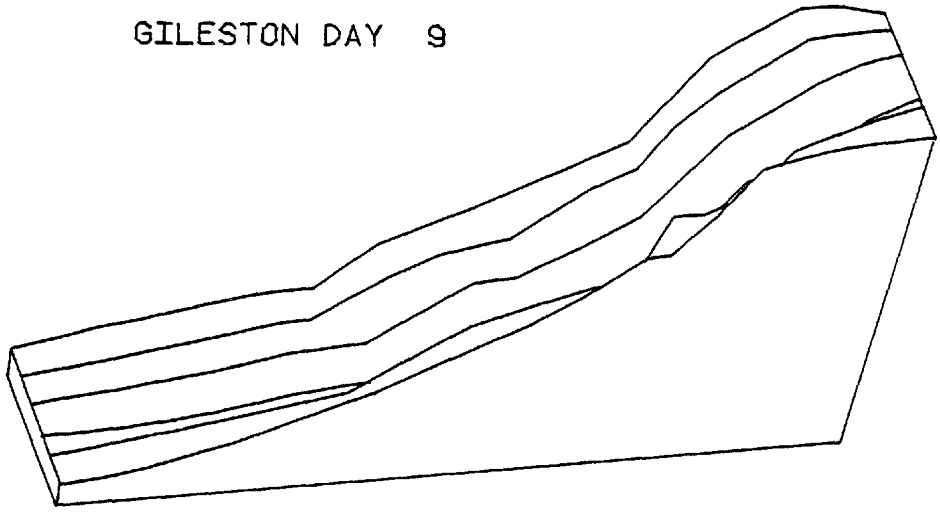


FIGURE 5.23J

GILESTON DAY 10

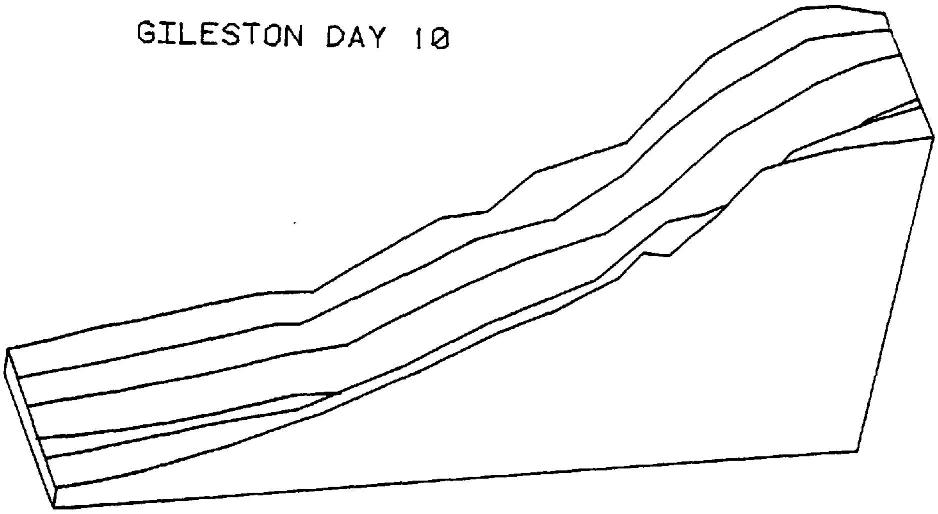


FIGURE 5.23K

GILESTON DAY 11

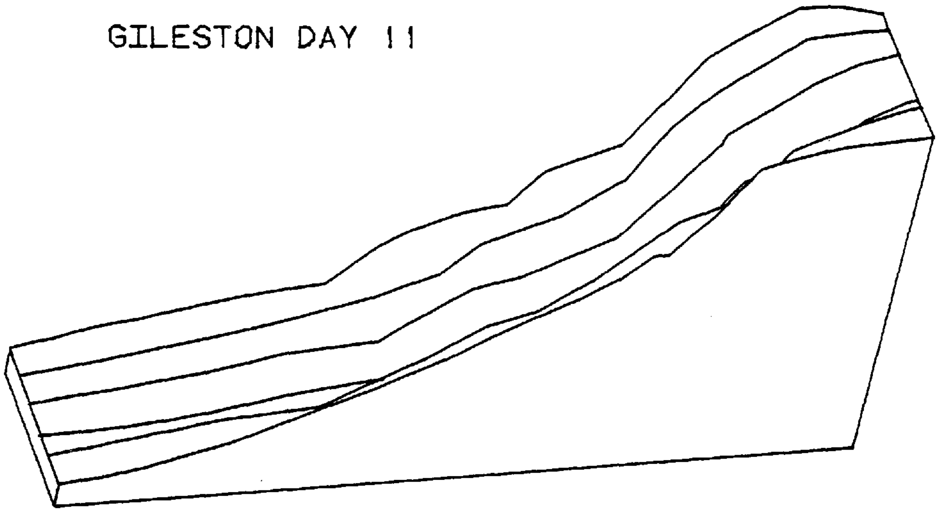


FIGURE 5.23L

GILESTON DAY 12

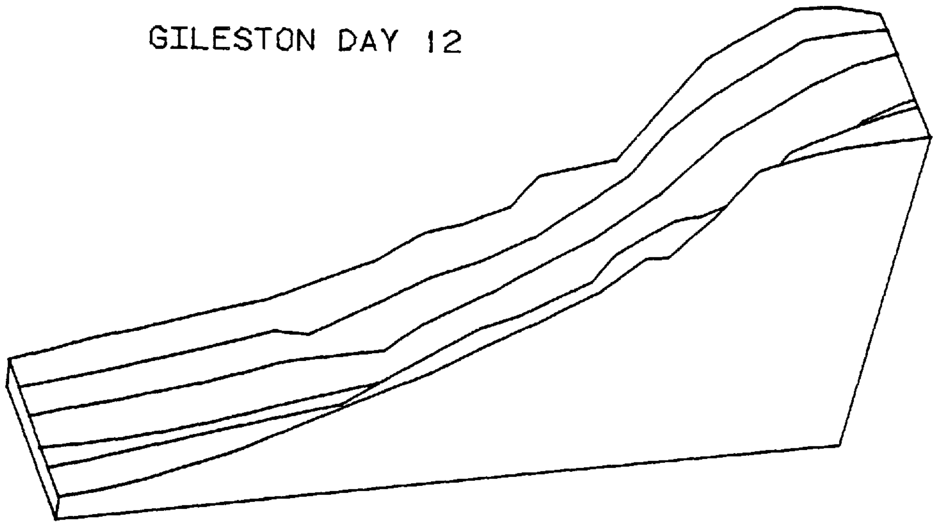


FIGURE 5.23M

GILESTON DAY 13

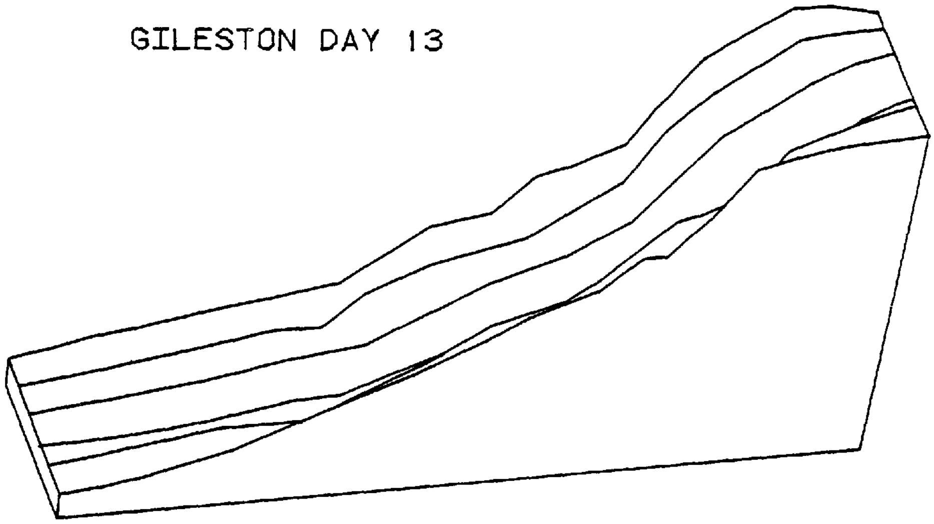


FIGURE 5.23N

GILESTON DAY 14

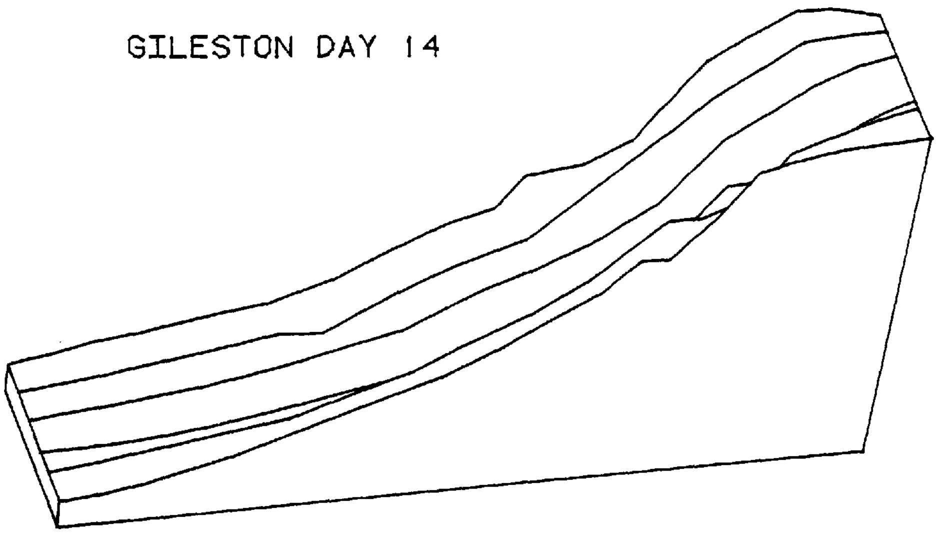


FIGURE 5.23O

GILESTON DAY 15

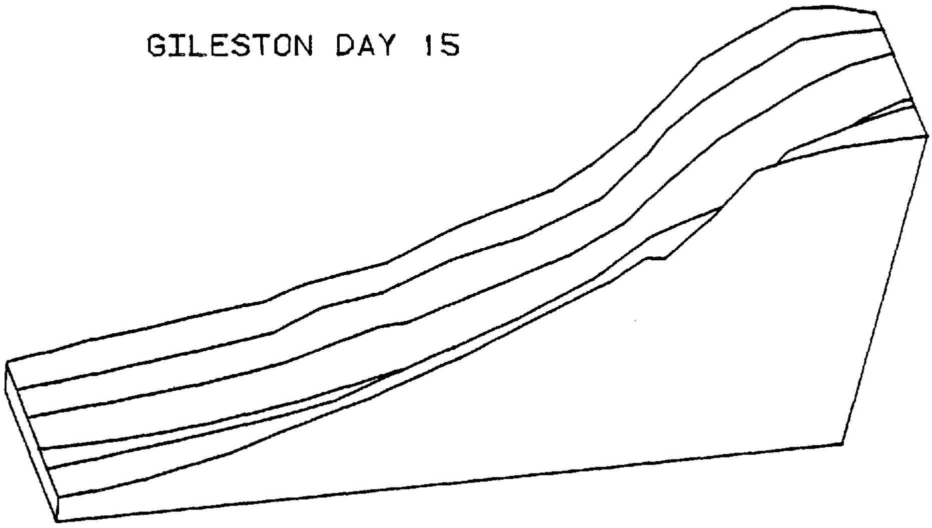
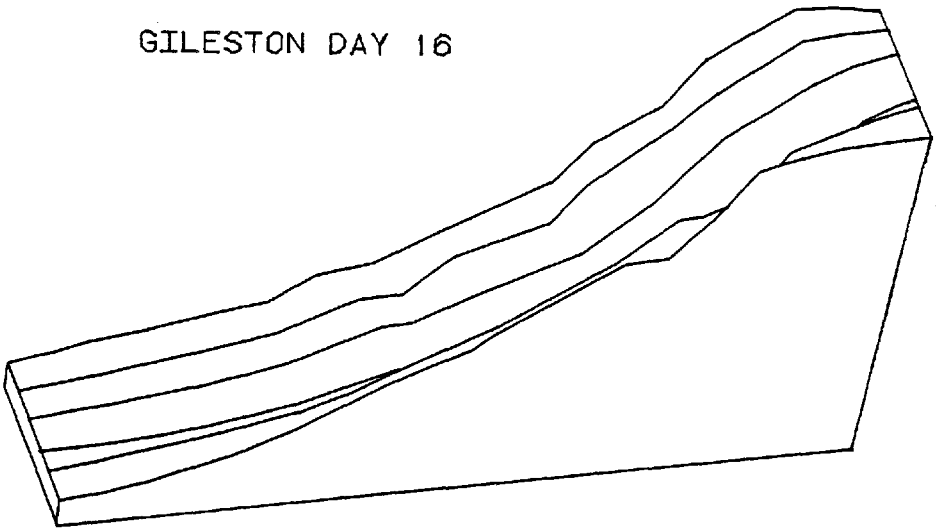


FIGURE 5.23P

GILESTON DAY 16



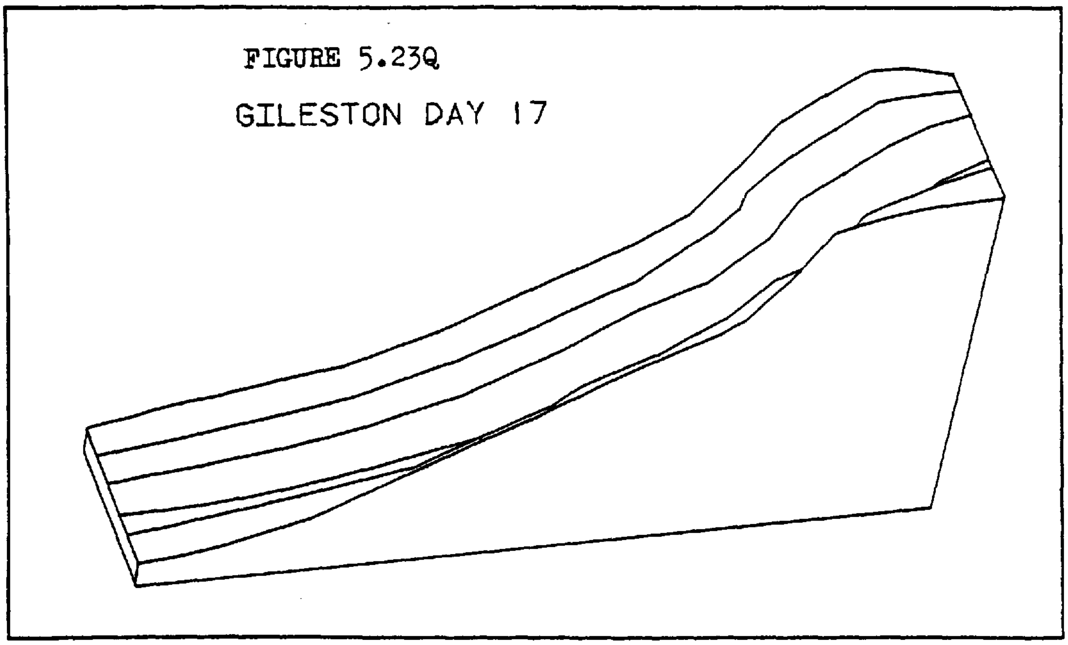


FIGURE 5.23Q
GILESTON DAY 17

FIGURE 5.24A

NASH DAY 1

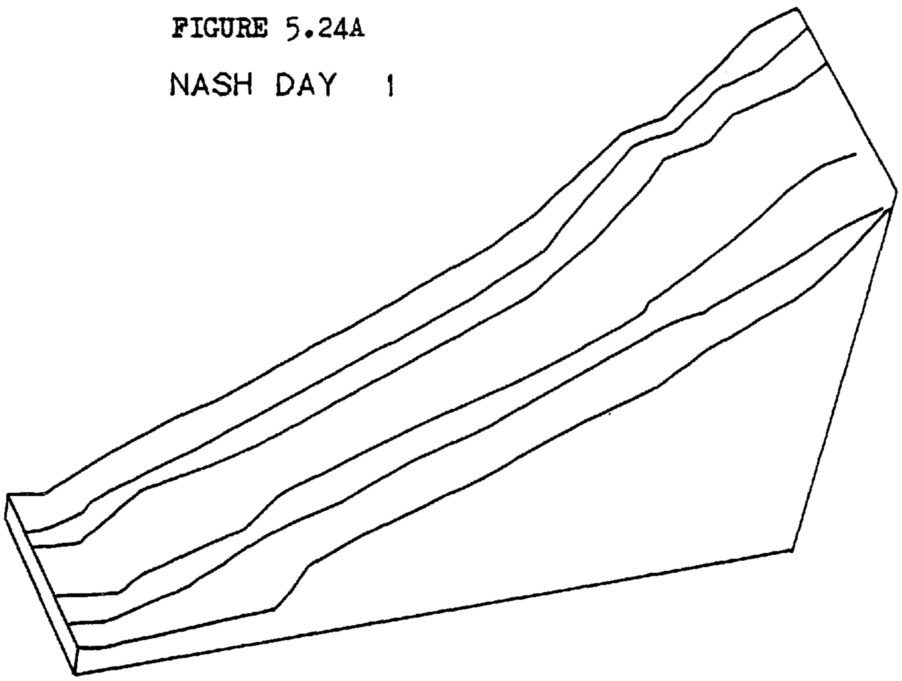


FIGURE 5.24B

NASH DAY 2

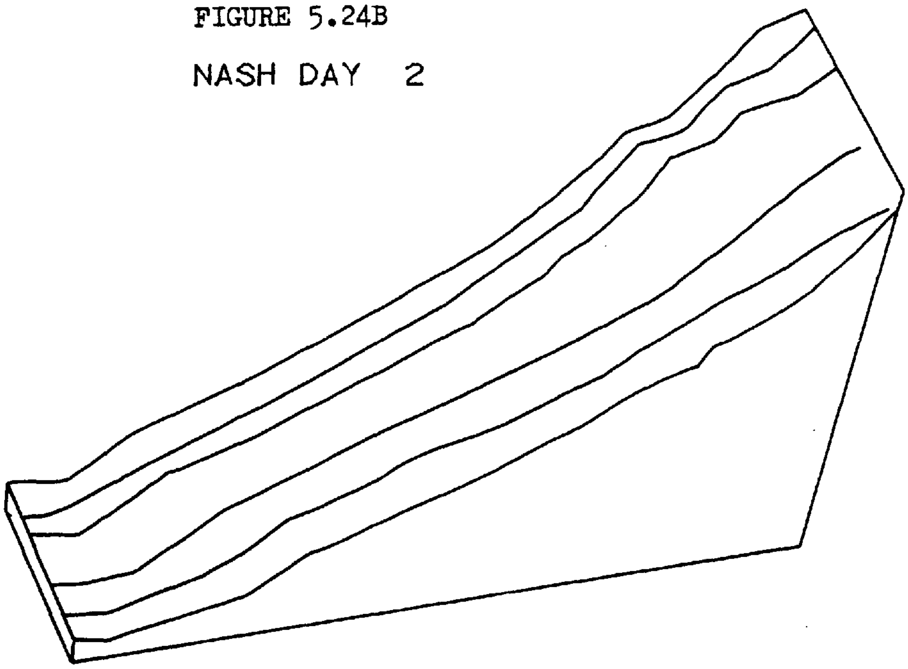


FIGURE 5.24C

NASH DAY 3

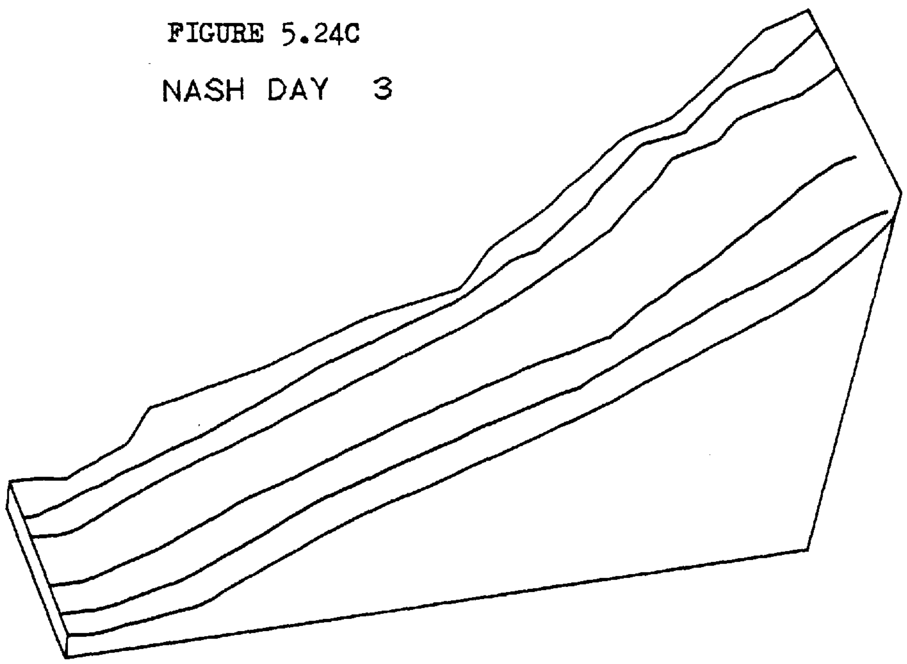


FIGURE 5.24D

NASH DAY 4

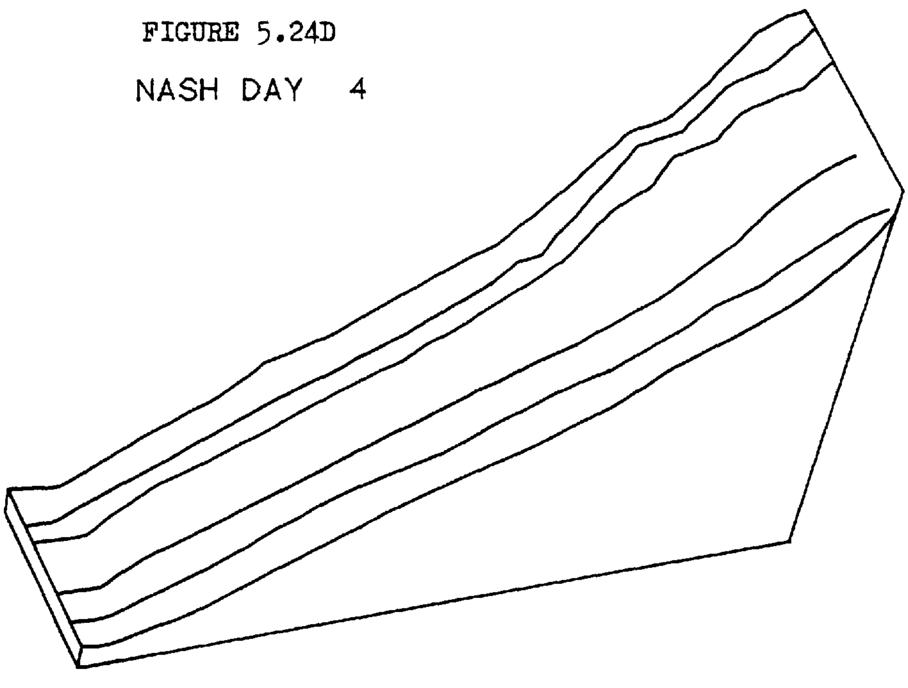


FIGURE 5.24E

NASH DAY 5

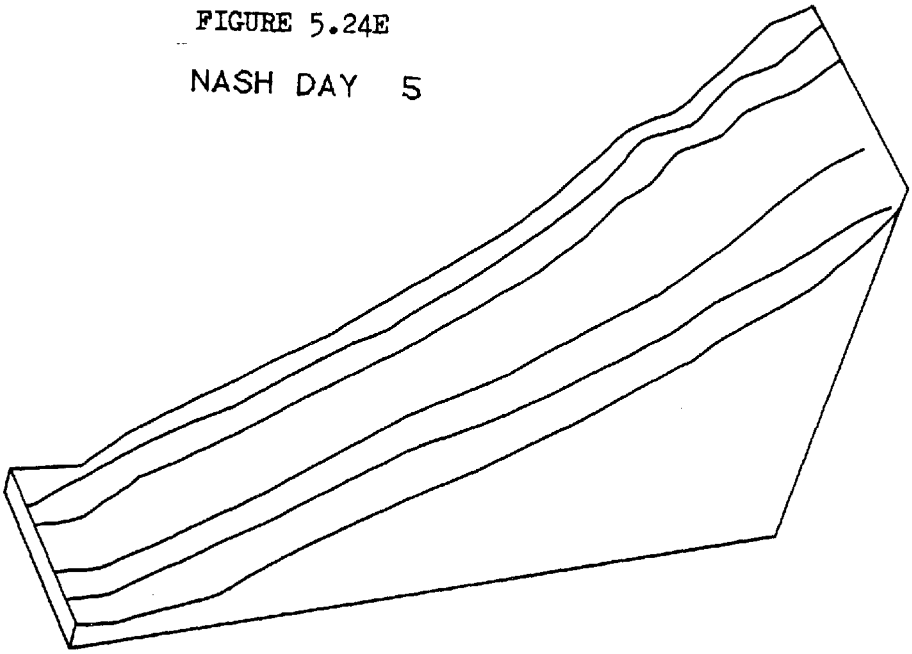


FIGURE 5.24F

NASH DAY 7

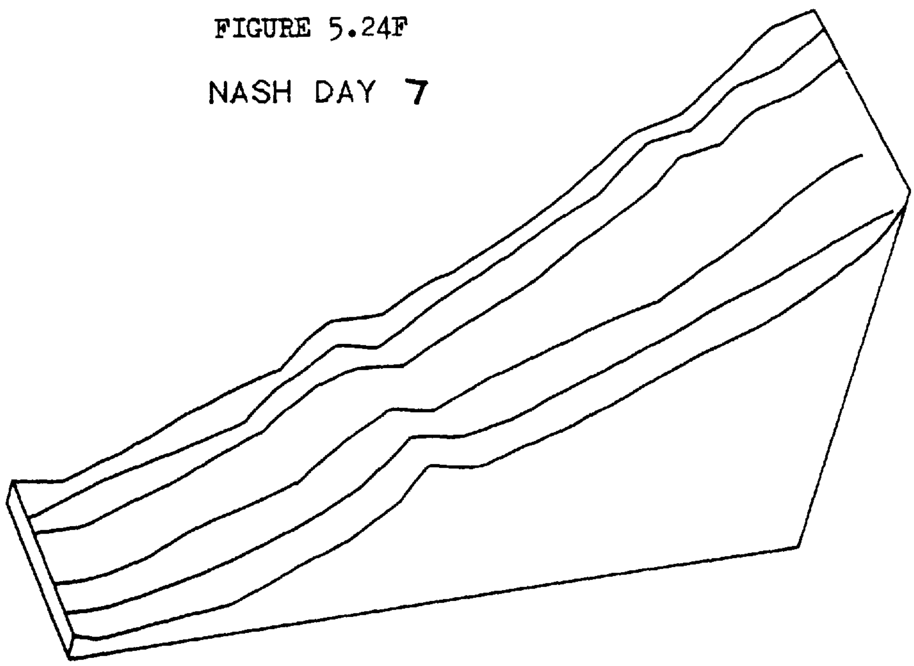


FIGURE 5.24G

NASH DAY 8

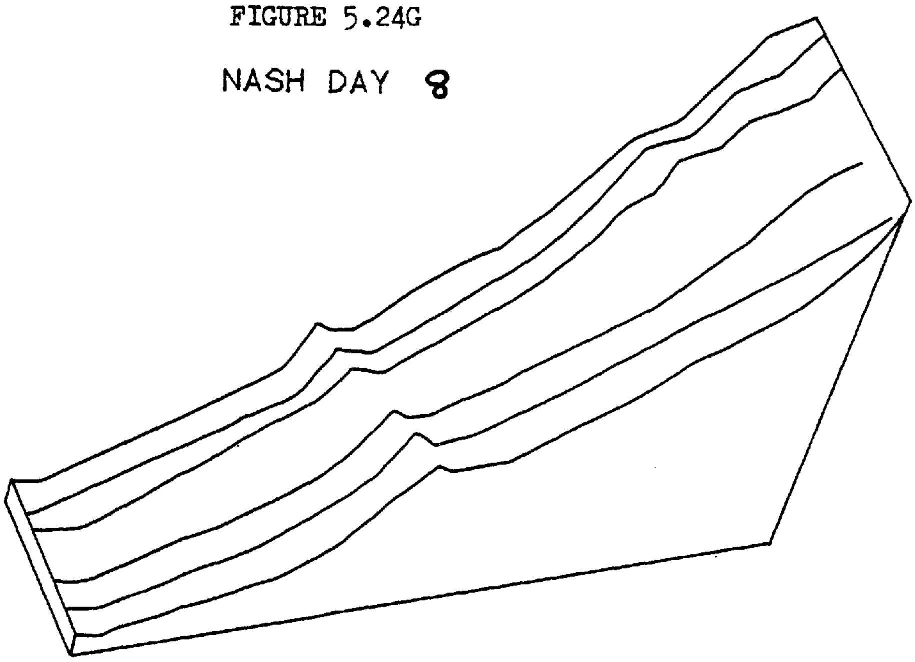


FIGURE 5.24H

NASH DAY 9

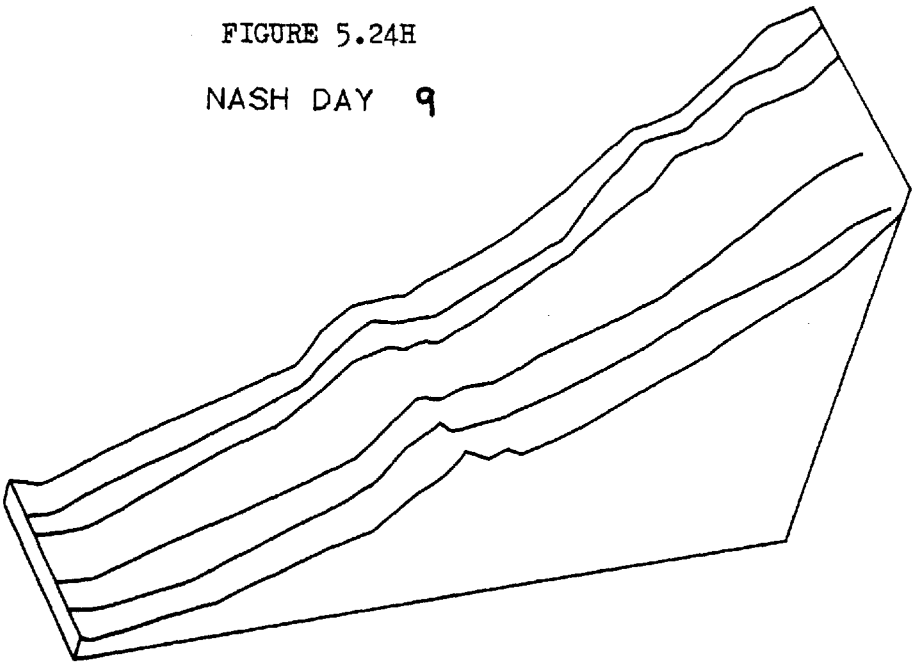


FIGURE 5.24I

NASH DAY 10

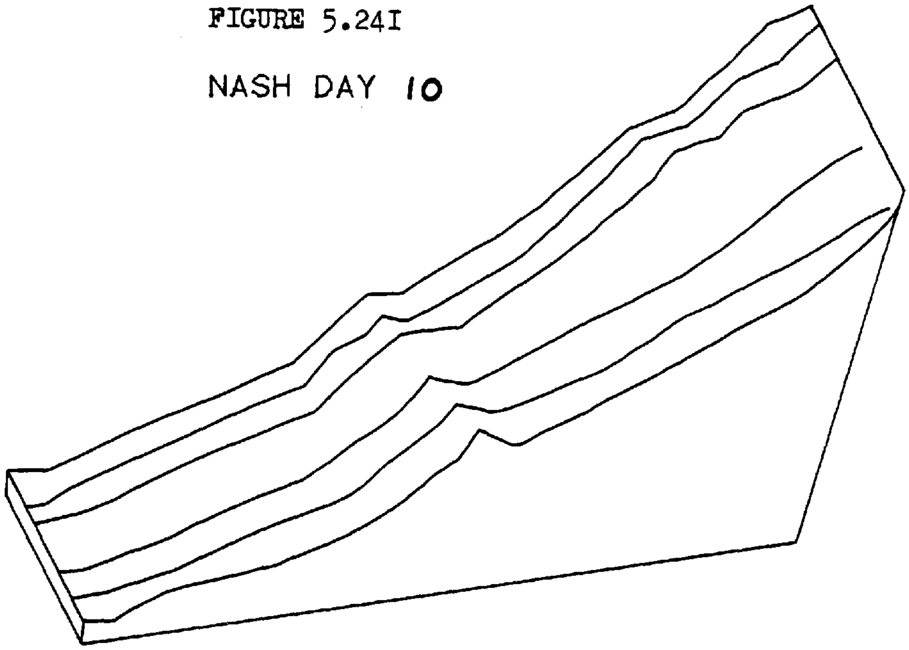


FIGURE 5.24J

NASH DAY 11

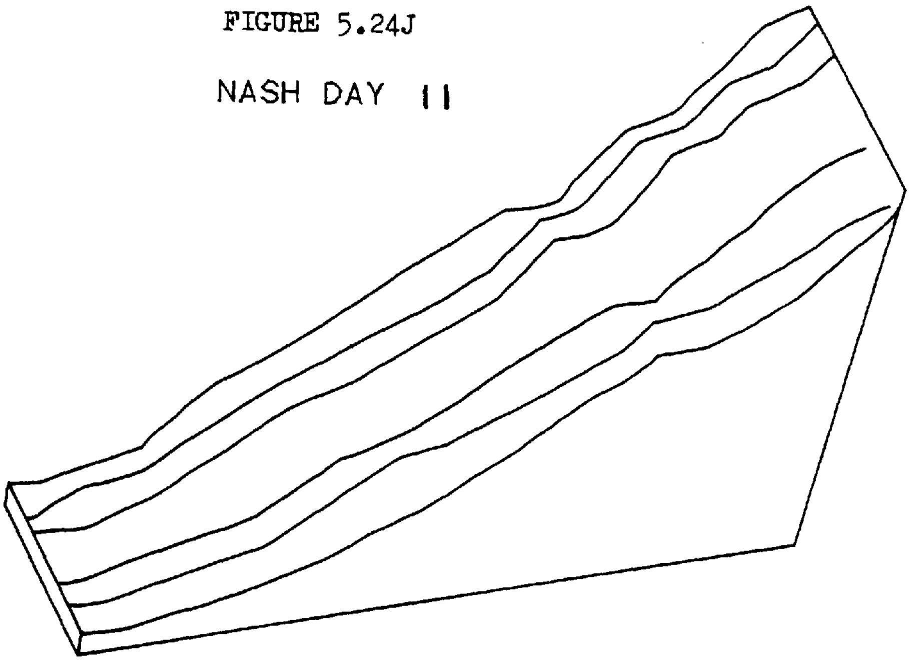


FIGURE 5.24K

NASH DAY 12

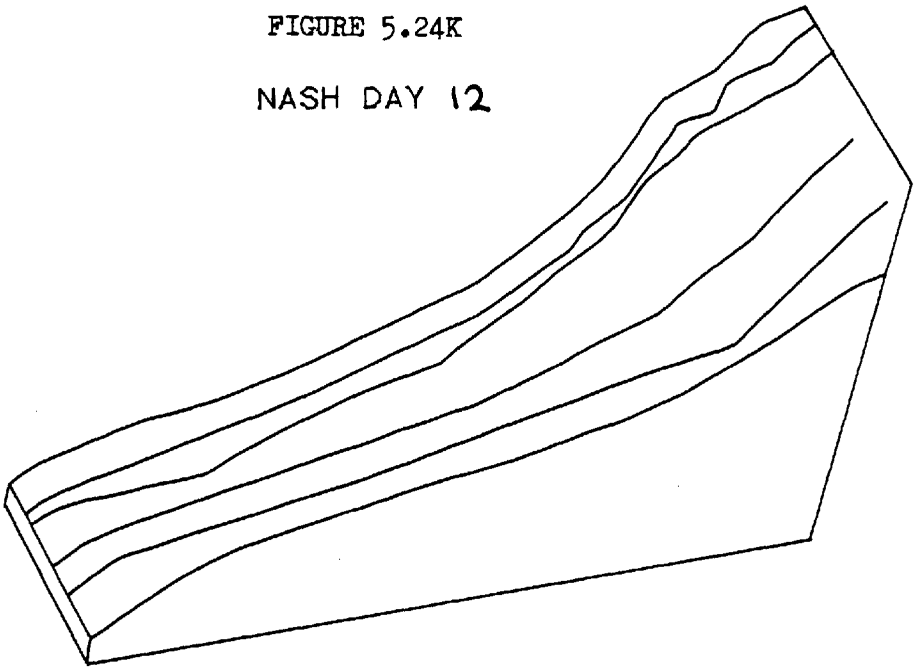


FIGURE 5.24L

NASH DAY 13

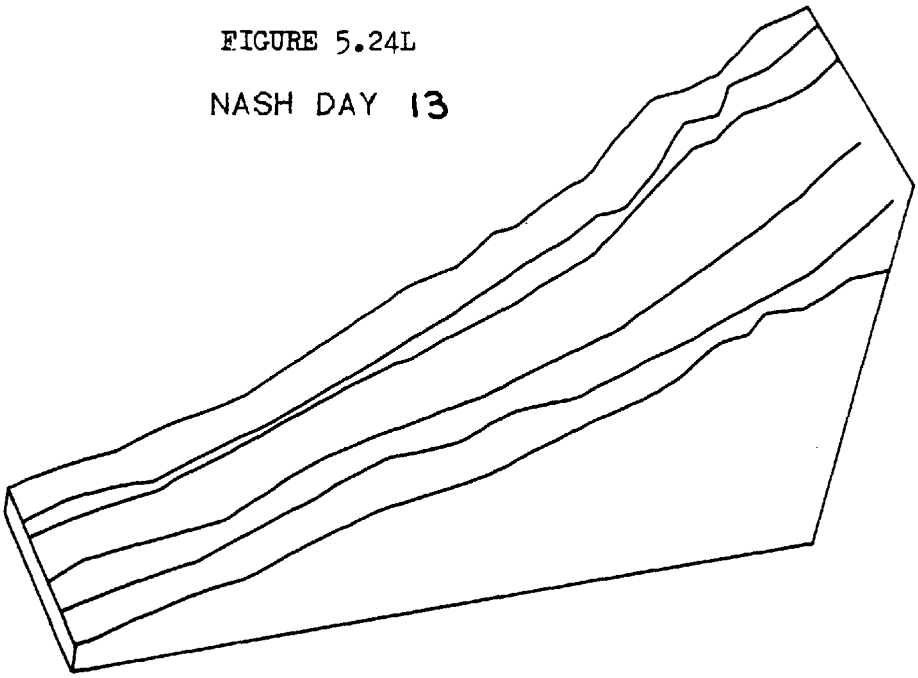


FIGURE 5.24M

NASH DAY 14

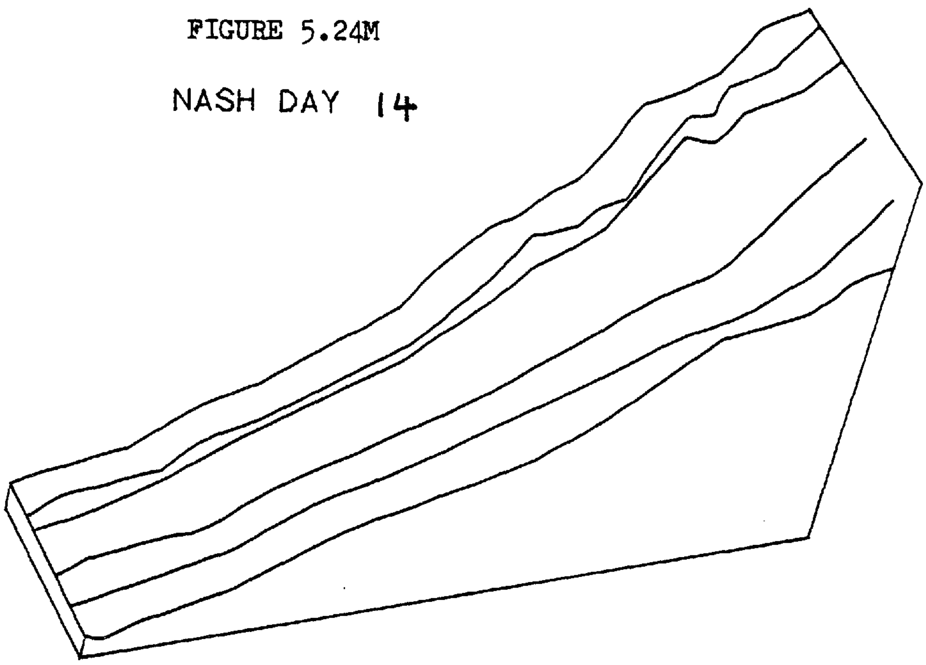
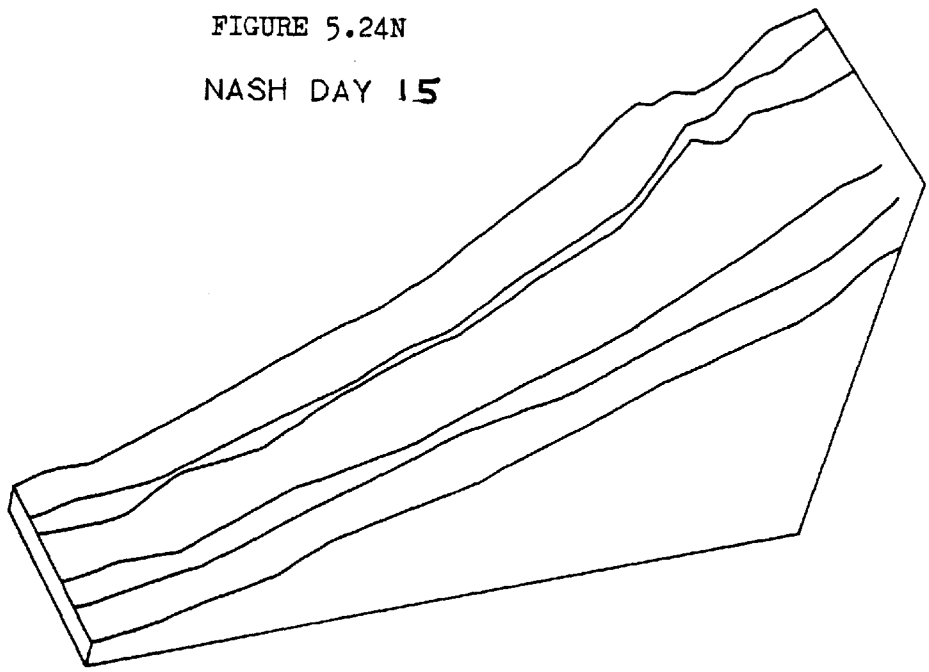


FIGURE 5.24N

NASH DAY 15



FIGURES 5.25A-J, 5.26A-J, 5.27A-J and 5.28A-J

These four blocks of ten diagrams show matrices drawn to identify patterns in the systematic occurrence of the 10 types of profile configuration (see Key to Table 5.2). Each block relates to the four periods of monitoring indicated in Table 5.1. A black circle has been used to record the occurrence of a particular configuration on a particular cross-section on a particular date (see section 5.7).

A

CCNB

DATE	G1	G2	G3	G4
10·11·77		●		
24·11·77		●	●	
12·12·77		●	●	●
27·12·77		●	●	●
12·01·78	●	●	●	●
25·01·78		●	●	●
09·02·78		●	●	
28·02·78	●			
10·03·78	●	●		
30·03·78				
11·04·78			●	
27·04·78			●	
09·05·78				
25·05·78				
08·06·78				
23·06·78			●	
12·07·78				
25·07·78				●
09·08·78			●	
23·08·78			●	
07·09·78				
21·09·78				
05·10·78			●	
19·10·78				
13·12·78	●		●	
20·02·79				

B

CCUB

DATE	G1	G2	G3	G4
10·11·77	●			
24·11·77	●			●
12·12·77	●			
27·12·77	●			
12·01·78				
25·01·78	●			
09·02·78	●			
28·02·78				
10·03·78				
30·03·78				
11·04·78				
27·04·78				
09·05·78	●			
25·05·78				
08·06·78				
23·06·78				
12·07·78				
25·07·78				
09·08·78				
23·08·78				
07·09·78				
21·09·78				
05·10·78				
19·10·78				
13·12·78		●		
20·02·79				

C

CCMB

DATE	G1	G2	G3	G4
10·11·77				●
24·11·77				
12·12·77				
27·12·77				
12·01·78				
25·01·78				
09·02·78				●
28·02·78		●	●	●
10·03·78			●	●
30·03·78	●	●	●	●
11·04·78	●	●		●
27·04·78		●		●
09·05·78			●	
25·05·78		●	●	●
08·06·78			●	●
23·06·78	●	●		●
12·07·78			●	●
25·07·78	●		●	
09·08·78	●	●		●
23·08·78				●
07·09·78		●	●	●
21·09·78			●	●
05·10·78		●		●
19·10·78			●	●
13·12·78				
20·02·79	●	●		●

FIGURES 5.25

D

CCLB

DATE	G1	G2	G3	G4
10·11·77				
24·11·77				
12·12·77				
27·12·77				
12·01·78				
25·01·78				
09·02·78				
29·02·78				
10·03·78				
30·03·78				
11·04·78				
27·04·78				
09·05·78				
25·05·78				
08·06·78				
23·06·78				
12·07·78				
25·07·78				
09·08·78				
23·08·78				
07·09·78				
21·09·78				
05·10·78				
19·10·78				
13·12·78				
20·02·79				

E

CCCB

DATE	G1	G2	G3	G4
10·11·77				
24·11·77				
12·12·77				
27·12·77				
12·01·78				
25·01·78				
09·02·78				
29·02·78				
10·03·78				
30·03·78				
11·04·78				
27·04·78	●			
09·05·78				
25·05·78	●			
08·06·78	●			
23·06·78				
12·07·78	●			
25·07·78				
09·08·78				
23·08·78	●			
07·09·78	●			
21·09·78	●			
05·10·78	●			
19·10·78	●			
13·12·78				
20·02·79			●	

F

LNB

DATE	G1	G2	G3	G4
10·11·77			●	
24·11·77				
12·12·77				
27·12·77				
12·01·78				
25·01·78				
09·02·78				
29·02·78				
10·03·78				
30·03·78				
11·04·78				
27·04·78				
09·05·78				
25·05·78				
08·06·78				
23·06·78				
12·07·78				
25·07·78				
09·08·78				
23·08·78				
07·09·78				
21·09·78				
05·10·78				
19·10·78				
13·12·78				
20·02·79				

FIGURES 5.25

G

LUB

DATE	G1	G2	G3	G4
10.11.77				
24.11.77				
12.12.77				
27.12.77				
12.01.78				
25.01.78				
09.02.78				
28.02.78				
10.03.78				
30.03.78				
11.04.78				
27.04.78				
09.05.78				
25.05.78				
08.06.78				
23.06.78				
12.07.78				
25.07.78				
09.08.78				
23.08.78				
07.09.78				
21.09.78				
05.10.78				
19.10.78				
13.12.78				
20.02.79				

H

LMB

DATE	G1	G2	G3	G4
10.11.77				
24.11.77				
12.12.77				
27.12.77				
12.01.78				
25.01.78				
09.02.78				
28.02.78				
10.03.78				
30.03.78				
11.04.78				
27.04.78				
09.05.78		●		●
25.05.78				
08.06.78		●		
23.06.78				
12.07.78		●		
25.07.78		●		
09.08.78				
23.08.78		●		
07.09.78				
21.09.78		●		
05.10.78				
19.10.78		●		
13.12.78				
20.02.79				

I

LLB

DATE	G1	G2	G3	G4
10.11.77				
24.11.77				
12.12.77				
27.12.77				
12.01.78				
25.01.78				
09.02.78				
28.02.78				
10.03.78				
30.03.78				
11.04.78				
27.04.78				
09.05.78				
25.05.78				
08.06.78				
23.06.78				
12.07.78				
25.07.78				
09.08.78				
23.08.78				
07.09.78				
21.09.78				
05.10.78				
19.10.78				
13.12.78				●
20.02.79				

FIGURES 5.25

J

LCB

DATE	G1	G2	G3	G4
10·11·77				
24·11·77				
12·12·77				
27·12·77				
12·01·78				
25·01·78				
09·02·78				
28·02·78				
10·03·78				
30·03·78				
11·04·78				
27·04·78				
09·05·78				
25·05·78				
08·06·78				
23·06·78				
12·07·78				
25·07·78				
09·08·78				
23·08·78				
07·09·78				
21·09·78				
05·10·78				
19·10·78				
13·12·78				
20·02·79				

FIGURES 5.25

A

CCNB

DATE	N1	N2	N3	N4
14·11·77				●
25·11·77				
13·12·77		●		●
28·12·77				
13·01·78	●			●
26·01·78				
10·02·78	●			
27·02·78			●	
09·03·78				●
29·03·78				
10·04·78				
24·04·78			●	
09·05·78	●			●
24·05·78				
09·06·78				
22·06·78			●	●
11·07·78	●			
24·07·78				
08·08·78	●			
21·08·78			●	
06·09·78				●
20·09·78			●	●
06·10·78				
20·10·78				
14·12·78				
18·01·79	●			
26·02·79				
16·08·79				

B

CCUB

DATE	N1	N2	N3	N4
14·11·77				
25·11·77	●			●
13·12·77	●			
28·12·77	●			●
13·01·78			●	
26·01·78				●
10·02·78				●
27·02·78	●	●		
09·03·78	●			
29·03·78				●
10·04·78				
24·04·78				●
09·05·78				
24·05·78	●		●	●
09·06·78	●		●	
22·06·78	●			
11·07·78				
24·07·78				
08·08·78	●			
21·08·78				●
06·09·78				
20·09·78				
06·10·78				
20·10·78		●		
14·12·78	●			
18·01·79			●	●
26·02·79			●	●
16·08·79				

C

CCMB

DATE	N1	N2	N3	N4
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13·12·77				
28·12·77			●	
13·01·78				
26·01·78		●		
10·02·78				
27·02·78				●
09·03·78				
29·03·78			●	
10·04·78	●			●
24·04·78	●			
09·05·78				
24·05·78				
09·06·78				
22·06·78				
11·07·78				●
24·07·78			●	
08·08·78			●	●
21·08·78				
06·09·78			●	
20·09·78				
06·10·78				●
20·10·78			●	●
14·12·78	●			
18·01·79				
26·02·79	●	●		
16·08·79				●

FIGURES 5.26

D

CCLB

DATE	N1	N2	N3	N4
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25.11.77				
13.12.77				
29.12.77				
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26.01.78	●			
10.02.78				
27.02.78				
09.03.78				
29.03.78				
10.04.78				
24.04.78				
09.05.78				
24.05.78				
09.06.78				
22.06.78				
11.07.78				
24.07.78				●
09.08.78				
21.08.78				
06.09.78				
20.09.78	●			
06.10.78				
20.10.78				
14.12.78			●	●
18.01.79				
26.02.79				
16.08.79			●	

E

CCCB

DATE	N1	N2	N3	N4
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29.12.77		●		
13.01.78				
26.01.78				
10.02.78				
27.02.78				
09.03.78			●	
29.03.78				
10.04.78			●	
24.04.78				
09.05.78				
24.05.78				
09.06.78				●
22.06.78				
11.07.78			●	
24.07.78				
09.08.78				
21.08.78	●			
06.09.78	●			
20.09.78				
06.10.78			●	
20.10.78				
14.12.78				
18.01.79		●		
26.02.79				
16.08.79	●	●		

F

LNB

DATE	N1	N2	N3	N4
14.11.77			●	
25.11.77				
13.12.77				
29.12.77				
13.01.78				
26.01.78				
10.02.78		●		
27.02.78				
09.03.78				
29.03.78	●			
10.04.78				
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24.05.78				
09.06.78				
22.06.78				
11.07.78				
24.07.78				
09.08.78				
21.08.78				
06.09.78				
20.09.78				
06.10.78				
20.10.78				
14.12.78				
18.01.79				
26.02.79				
16.08.79				

FIGURES 5.26

G

LUB

DATE	N1	N2	N3	N4
14·11·77				
25·11·77				
13·12·77				
28·12·77				
13·01·78				
26·01·78			●	
10·02·78				
27·02·78				
09·03·78		●		
29·03·78		●		
10·04·78		●		
24·04·78		●		
08·05·78		●		
24·05·78		●		
09·06·78		●		
22·06·78		●		
11·07·78				
24·07·78		●		
08·08·78		●		
21·08·78		●		
06·09·78		●		
20·09·78		●		
06·10·78	●			
20·10·78				
14·12·78				
18·01·79				
26·02·79				
16·08·79				

H

LMB

DATE	N1	N2	N3	N4
14·11·77	●			
25·11·77				
13·12·77				
28·12·77				
13·01·78				
26·01·78				
10·02·78				
27·02·78				
09·03·78				
29·03·78				
10·04·78				
24·04·78				
08·05·78				
24·05·78				
09·06·78				
22·06·78				
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24·07·78				
08·08·78				
21·08·78				
06·09·78				
20·09·78				
06·10·78				
20·10·78				
14·12·78				
18·01·79				
26·02·79				
16·08·79				

I

LLB

DATE	N1	N2	N3	N4
14·11·77		●		
25·11·77				
13·12·77				
28·12·77				
13·01·78				
26·01·78				
10·02·78				
27·02·78				
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29·03·78				
10·04·78				
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24·07·78				
08·08·78				
21·08·78				
06·09·78				
20·09·78				
06·10·78				
20·10·78				
14·12·78				
18·01·79				
26·02·79				
16·08·79				

FIGURES 5.26

LCB

DATE	N1	N2	N3	N4
14·11·77				
25·11·77				
13·12·77				
28·12·77				
13·01·78				
26·01·78				
10·02·78			●	
27·02·78				
09·03·78				
29·03·78				
10·04·78				
24·04·78				
09·05·78				
24·05·78				
09·06·78				
22·06·78				
11·07·78		●		
24·07·78				
09·08·78				
21·08·78				
06·09·78				
20·09·78				
06·10·78		●		
20·10·78				
14·12·78		●		
18·01·79				
26·02·79				
16·09·79				

FIGURES 5.26

A

CCNB

DATE	G1	G2	G3	G4	G5	G6
02.02.80					●	●
03.02.80	●				●	
04.02.80		●			●	●
05.02.80				●		●
06.02.80	●			●	●	
07.02.80		●		●	●	
08.02.80						
09.02.80		●	●			
10.02.80						
11.02.80			●			
12.02.80		●		●		
13.02.80				●		
14.02.80		●				
15.02.80					●	
16.02.80				●		●
17.02.80			●	●		
18.02.80		●	●	●	●	●

B

CCUB

DATE	G1	G2	G3	G4	G5	G6
02.02.80			●	●		
03.02.80			●	●		
04.02.80			●	●		
05.02.80			●			
06.02.80			●			
07.02.80	●		●			
08.02.80			●			
09.02.80						
10.02.80						
11.02.80		●				
12.02.80			●			
13.02.80		●	●			
14.02.80						
15.02.80		●	●			
16.02.80		●	●			
17.02.80		●				
18.02.80						

C

CCMB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80						
06.02.80		●				
07.02.80						
08.02.80		●				
09.02.80						
10.02.80				●		
11.02.80					●	
12.02.80					●	
13.02.80						
14.02.80						
15.02.80						
16.02.80						
17.02.80						
18.02.80						

FIGURES 5.27

D

CCLB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80		●				
06.02.80						
07.02.80						
08.02.80						
09.02.80						
10.02.80						●
11.02.80						
12.02.80						
13.02.80						
14.02.80						
15.02.80						
16.02.80					●	
17.02.80						
18.02.80						

E

CCCB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80						
06.02.80						
07.02.80						●
08.02.80						
09.02.80						●
10.02.80		●				●
11.02.80						
12.02.80						
13.02.80						
14.02.80						
15.02.80						
16.02.80						
17.02.80					●	●
18.02.80						

F

LNB

DATE	G1	G2	G3	G4	G5	G6
02.02.80	●					
03.02.80						●
04.02.80	●					
05.02.80					●	
06.02.80						
07.02.80						
08.02.80	●				●	
09.02.80	●			●		
10.02.80			●			
11.02.80				●		
12.02.80	●					
13.02.80					●	
14.02.80	●		●	●		
15.02.80	●			●		
16.02.80						
17.02.80						
18.02.80	●					

FIGURES 5.27

G

LUB

DATE	G1	G2	G3	G4	G5	G6
02.02.80		●				
03.02.80		●				
04.02.80						
05.02.80						
06.02.80						
07.02.80						
08.02.80						
09.02.80						
10.02.80	●					
11.02.80	●					
12.02.80						
13.02.80	●					
14.02.80						
15.02.80						
16.02.80	●					
17.02.80	●					
18.02.80						

H

LMB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80						
06.02.80						
07.02.80						
08.02.80				●		
09.02.80					●	
10.02.80						
11.02.80						
12.02.80						
13.02.80						
14.02.80						
15.02.80						●
16.02.80						
17.02.80						
18.02.80						

I

LLB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80						
06.02.80						
07.02.80						
08.02.80						
09.02.80						
10.02.80						
11.02.80						
12.02.80						
13.02.80						
14.02.80					●	
15.02.80						
16.02.80						
17.02.80						
18.02.80						

FIGURES 5.27

LCB

DATE	G1	G2	G3	G4	G5	G6
02.02.80						
03.02.80						
04.02.80						
05.02.80	●					
06.02.80						
07.02.80						●
08.02.80						
09.02.80						
10.02.80					●	
11.02.80						●
12.02.80						●
13.02.80						●
14.02.80						●
15.02.80						
16.02.80						
17.02.80						
18.02.80						

FIGURES 5.27

A

CCNB

DATE	N1	N2	N3	N4	N5	N6
18.03.80					●	
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80						
25.03.80						
26.03.80						
27.03.80						
28.03.80						
29.03.80						
30.03.80			●	●		
31.03.80		●	●			
01.04.80		●	●			

B

CCUB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80		●		●		
25.03.80		●		●		
26.03.80		●				
27.03.80						
28.03.80	●					
29.03.80						
30.03.80					●	●
31.03.80				●		●
01.04.80					●	●

C

CCMB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80						
25.03.80					●	
26.03.80					●	
27.03.80					●	
28.03.80						
29.03.80						
30.03.80						
31.03.80						
01.04.80						

FIGURES 5.28

D

CCLB

DATE	N1	N2	N3	N4	N5	N6
18.03.80	●		●	●		
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80						
25.03.80						
26.03.80						
27.03.80						
28.03.80						
29.03.80		●	●			
30.03.80						
31.03.80						
01.04.80						

E

CCCB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80				●		
22.03.80				●		
24.03.80						
25.03.80						
26.03.80						
27.03.80	●	●				
28.03.80						
29.03.80				●	●	●
30.03.80						
31.03.80					●	
01.04.80				●		

F

LNB

DATE	N1	N2	N3	N4	N5	N6
18.03.80		●				
19.03.80	●	●			●	
20.03.80	●	●	●	●	●	
21.03.80	●	●	●		●	
22.03.80	●	●	●		●	
24.03.80						
25.03.80						
26.03.80						
27.03.80						
28.03.80						
29.03.80						
30.03.80		●				
31.03.80						
01.04.80	●					

FIGURES 5.28

G

LUB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80						●
25.03.80						●
26.03.80			●	●		●
27.03.80		●	●	●		●
28.03.80			●		●	
29.03.80						
30.03.80	●					
31.03.80	●					
01.04.80						

H

LMB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80						
22.03.80						●
24.03.80	●		●		●	
25.03.80	●		●			
26.03.80	●					
27.03.80						
28.03.80				●		
29.03.80						
30.03.80						
31.03.80						
01.04.80						

I

LLB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						●
19.03.80			●	●		●
20.03.80						●
21.03.80						
22.03.80						●
24.03.80						
25.03.80						
26.03.80						
27.03.80						
28.03.80						●
29.03.80	●					
30.03.80						
31.03.80						
01.04.80						

FIGURES 5.28

LCB

DATE	N1	N2	N3	N4	N5	N6
18.03.80						
19.03.80						
20.03.80						
21.03.80						
22.03.80						
24.03.80						
25.03.80						
26.03.80						
27.03.80						
28.03.80						
29.03.80						
30.03.80						
31.03.80						
01.04.80						

FIGURES 5.28

FIGURES 5.29A-T

These graphs display the systematic changes in profile configuration observed on each cross-section over time. Symbols have been used to represent changes in berm position, whenever they were present (see Key below and section 5.7).

BERM POSITION ● : UB ▲ : MB ■ : LB ○ : CB

FIGURE 5.29A

GILESTON ST. PROFILE 1

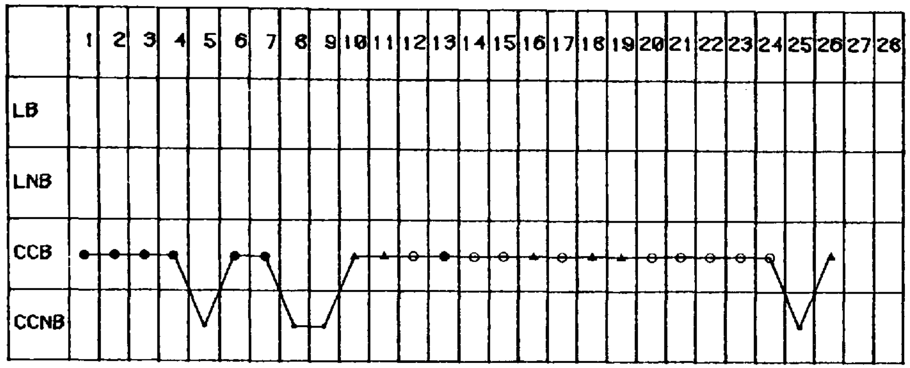


FIGURE 5.29C

GILESTON ST. PROFILE 3

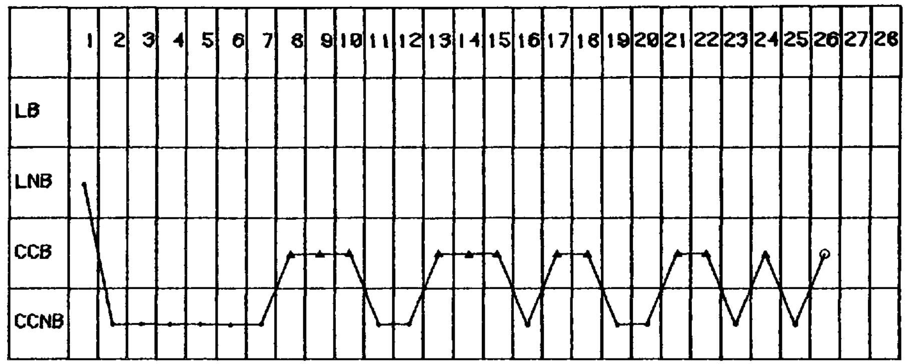


FIGURE 5.29B

GILESTON ST. PROFILE 2

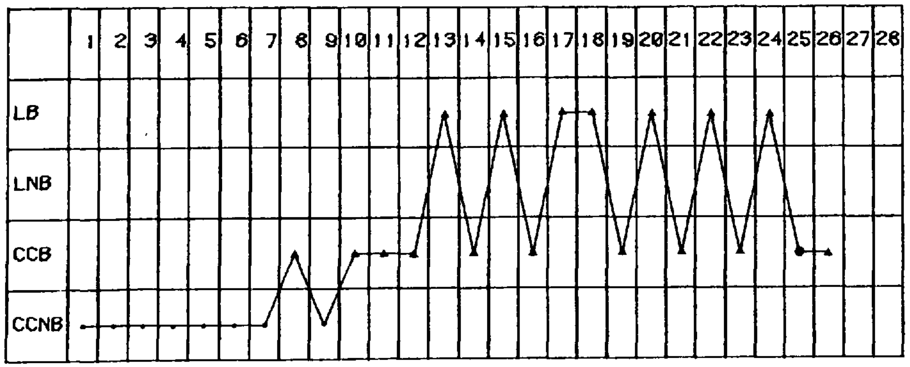


FIGURE 5.29D

GILESTON ST. PROFILE 4

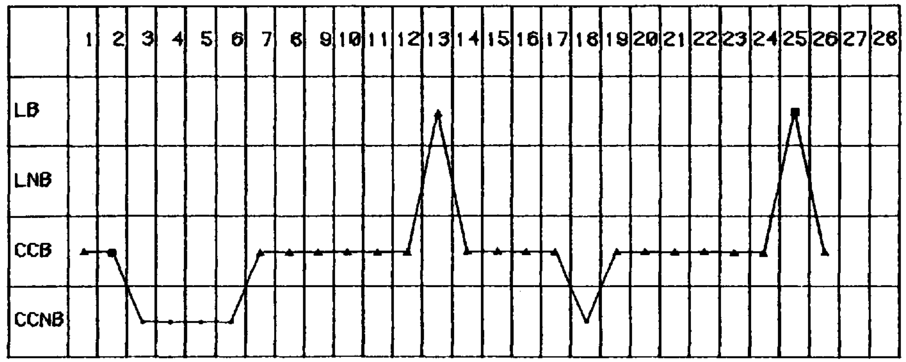


FIGURE 5.29E

NASH ST. PROFILE 1

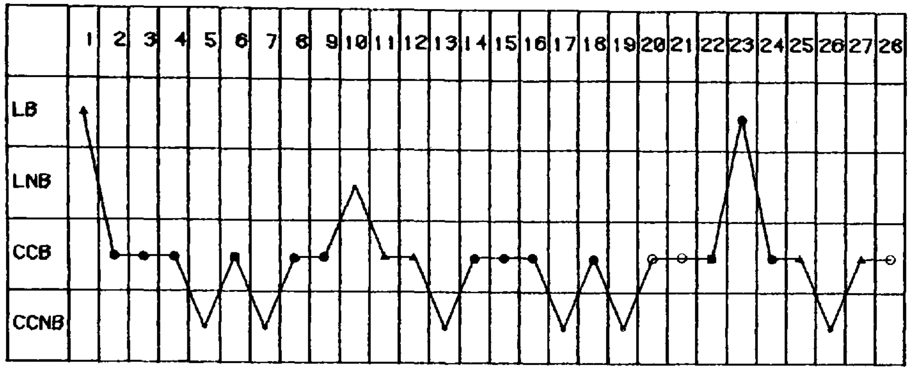


FIGURE 5.29F

NASH ST. PROFILE 2

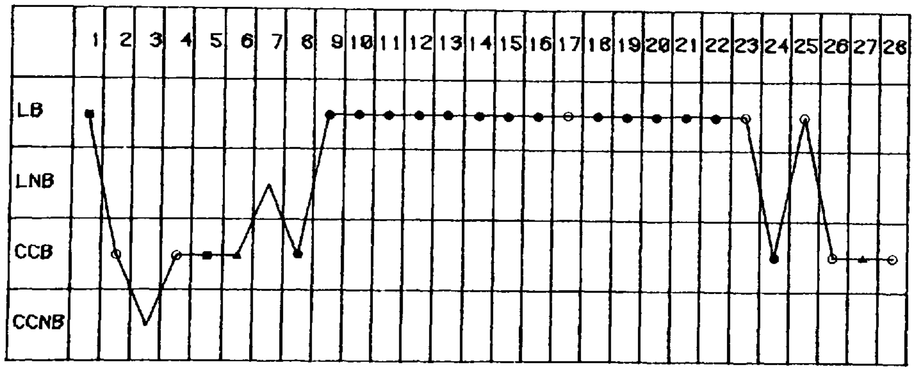


FIGURE 5.29G

NASH ST. PROFILE 3

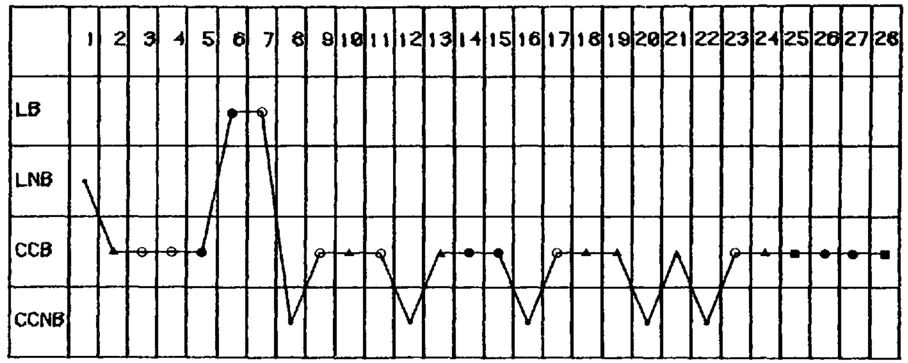


FIGURE 5.29H

NASH ST. PROFILE 4

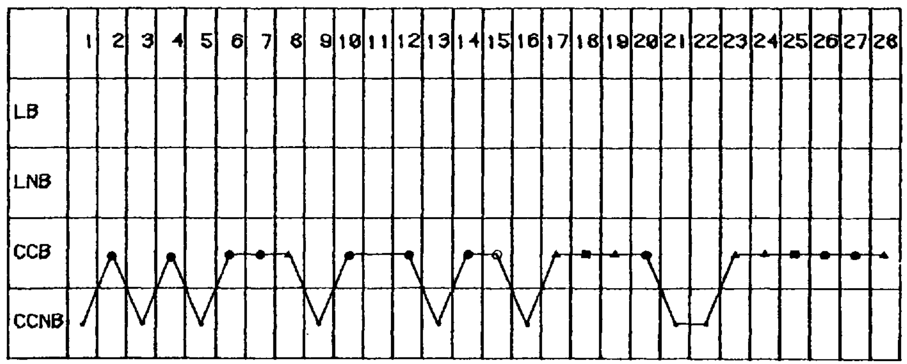


FIGURE 5.29I

GILESTON CM. PROFILE 1

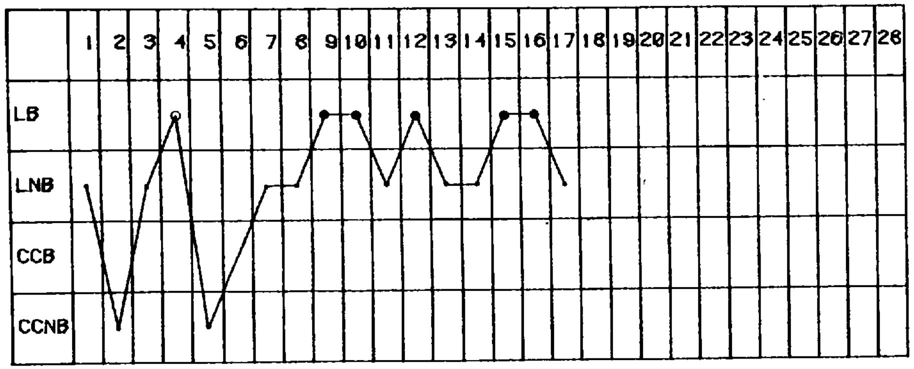


FIGURE 5.29J

GILESTON CM. PROFILE 2

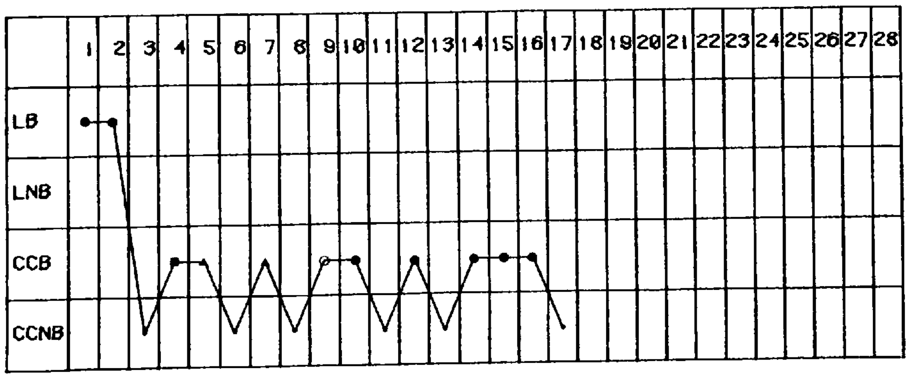


FIGURE 5.29K

GILESTON CM. PROFILE 3

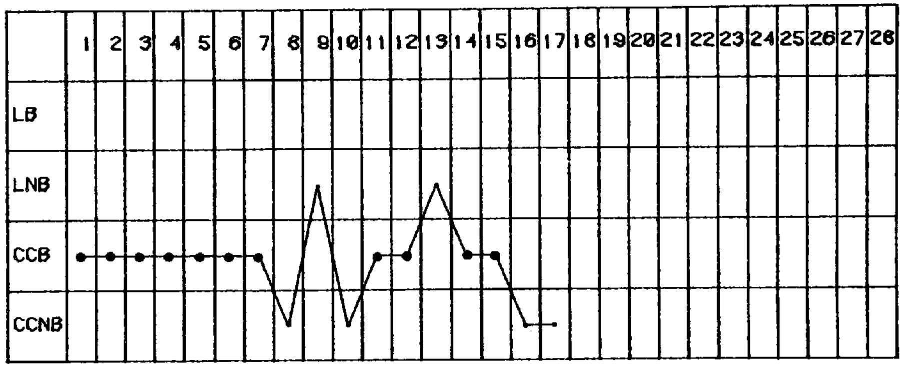


FIGURE 5.29L

GILESTON CM. PROFILE 4

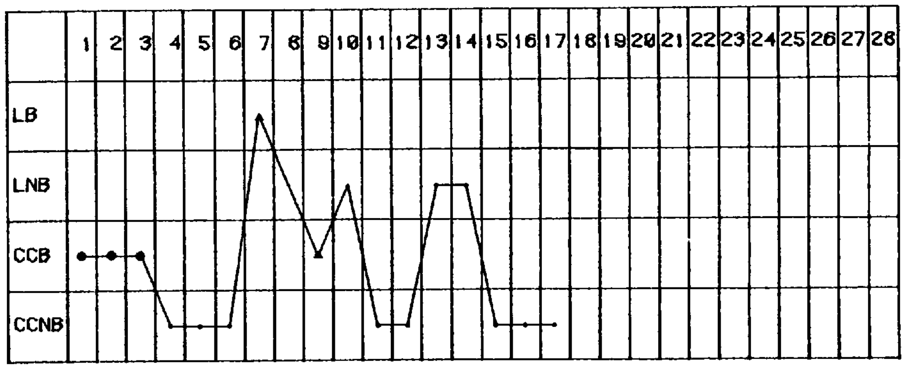


FIGURE 5.29M

GILESTON CM. PROFILE 5

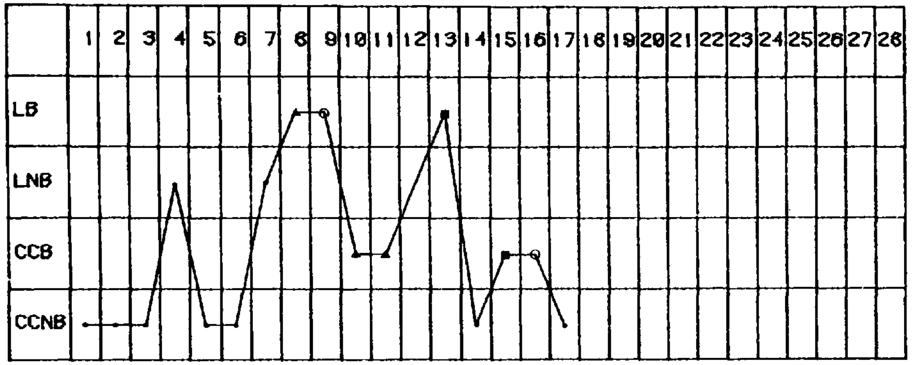


FIGURE 5.29O

NASH CM. PROFILE 1

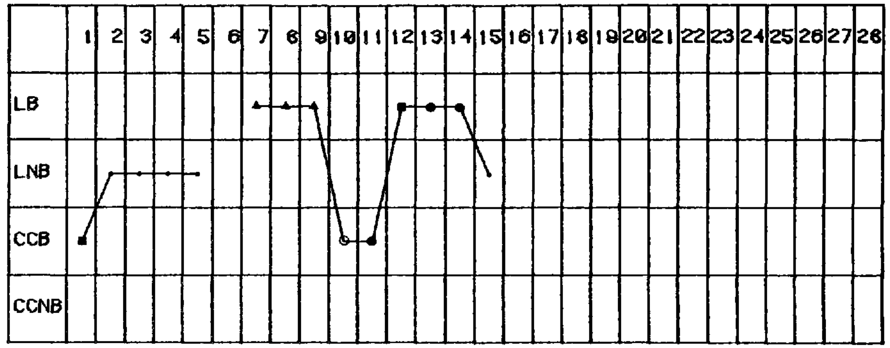


FIGURE 5.29N

GILESTON CM. PROFILE 6

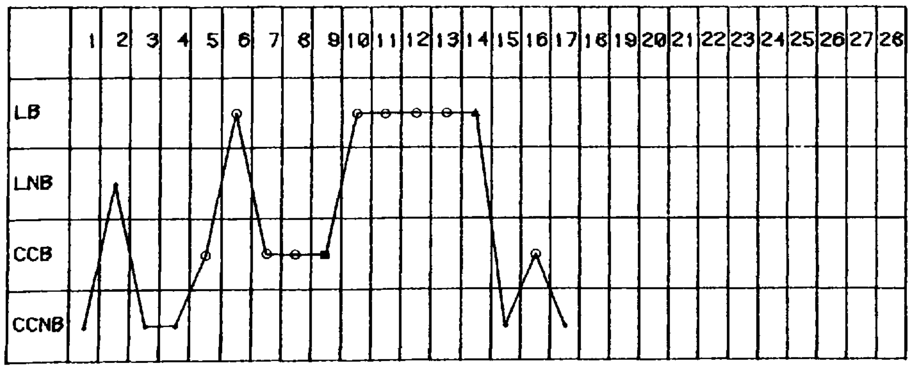


FIGURE 5.29P

NASH CM. PROFILE 2

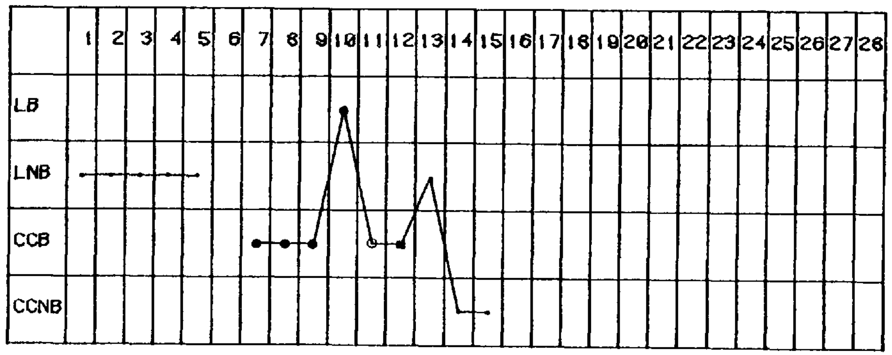


FIGURE 5.29Q

NASH CM. PROFILE 3

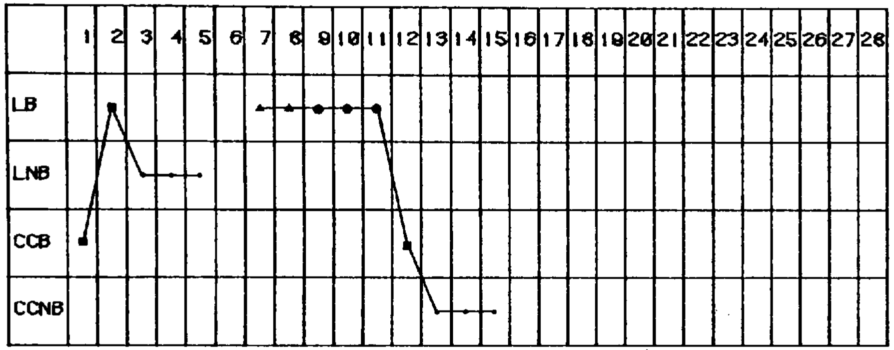


FIGURE 5.29S

NASH CM. PROFILE 6

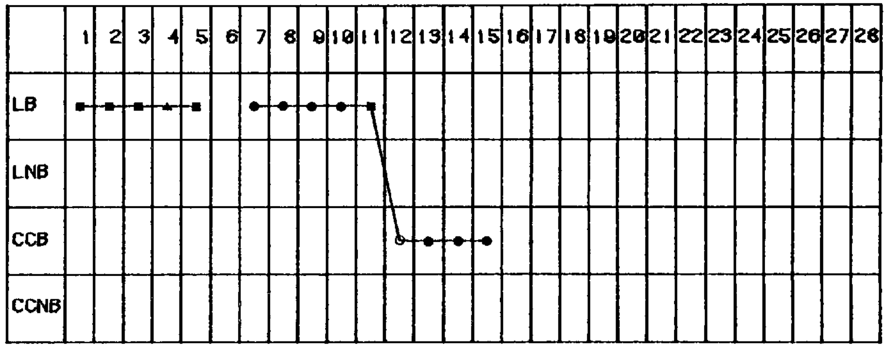


FIGURE 5.29R

NASH CM. PROFILE 4

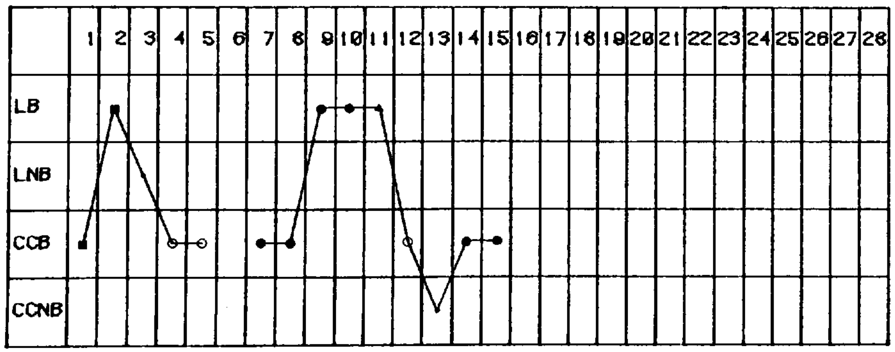
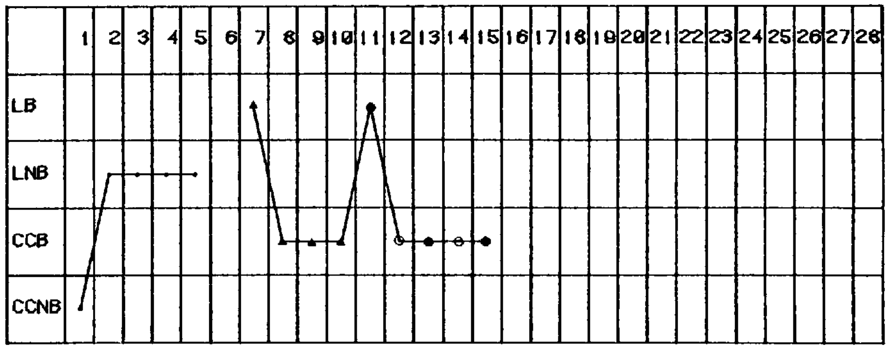


FIGURE 5.29T

NASH CM. PROFILE 5



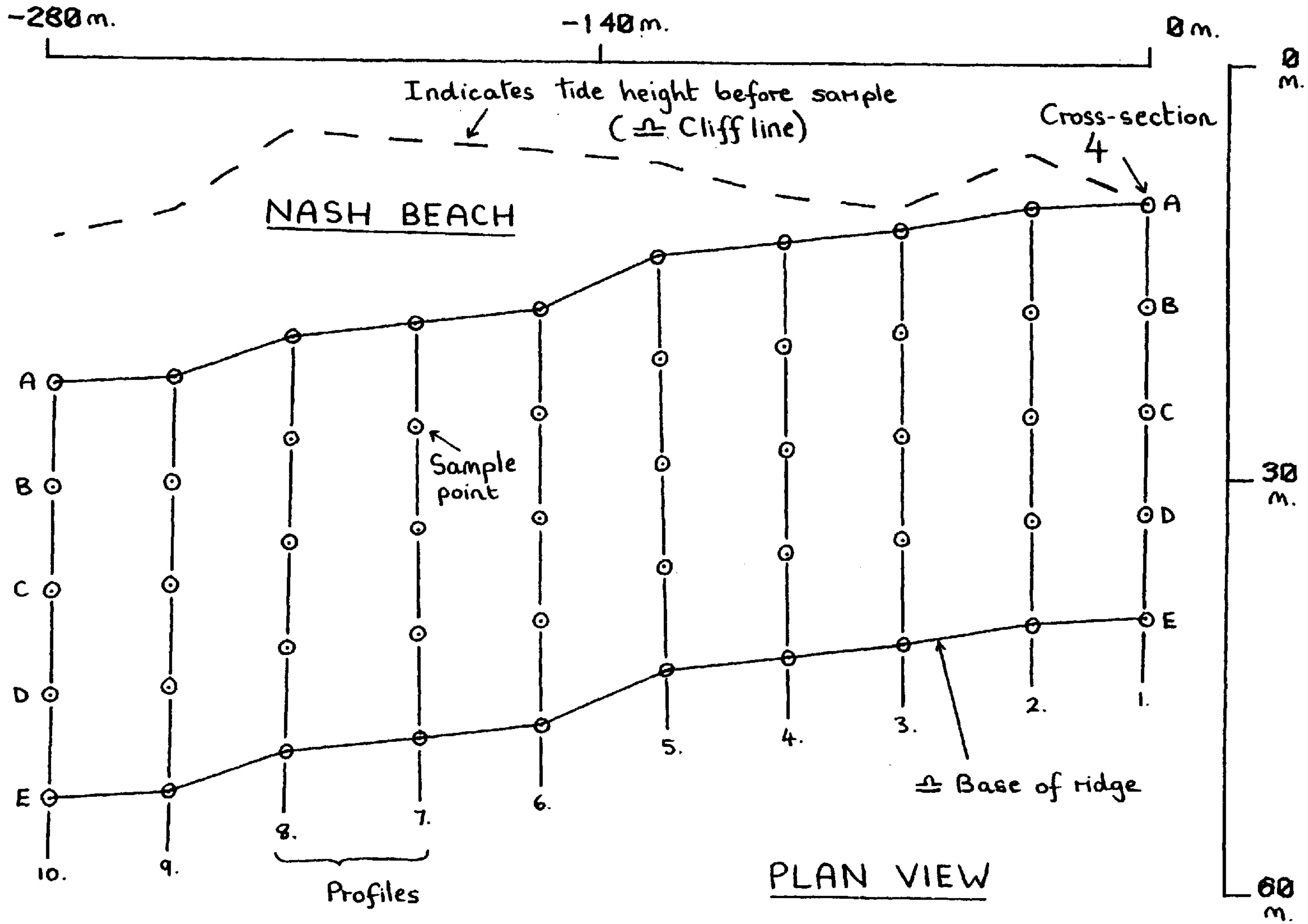


FIGURE 6.1 <u>GRID SAMPLING FRAME ON NASH BEACH</u> (To locate cross-section 4 see Fig: 5.7)

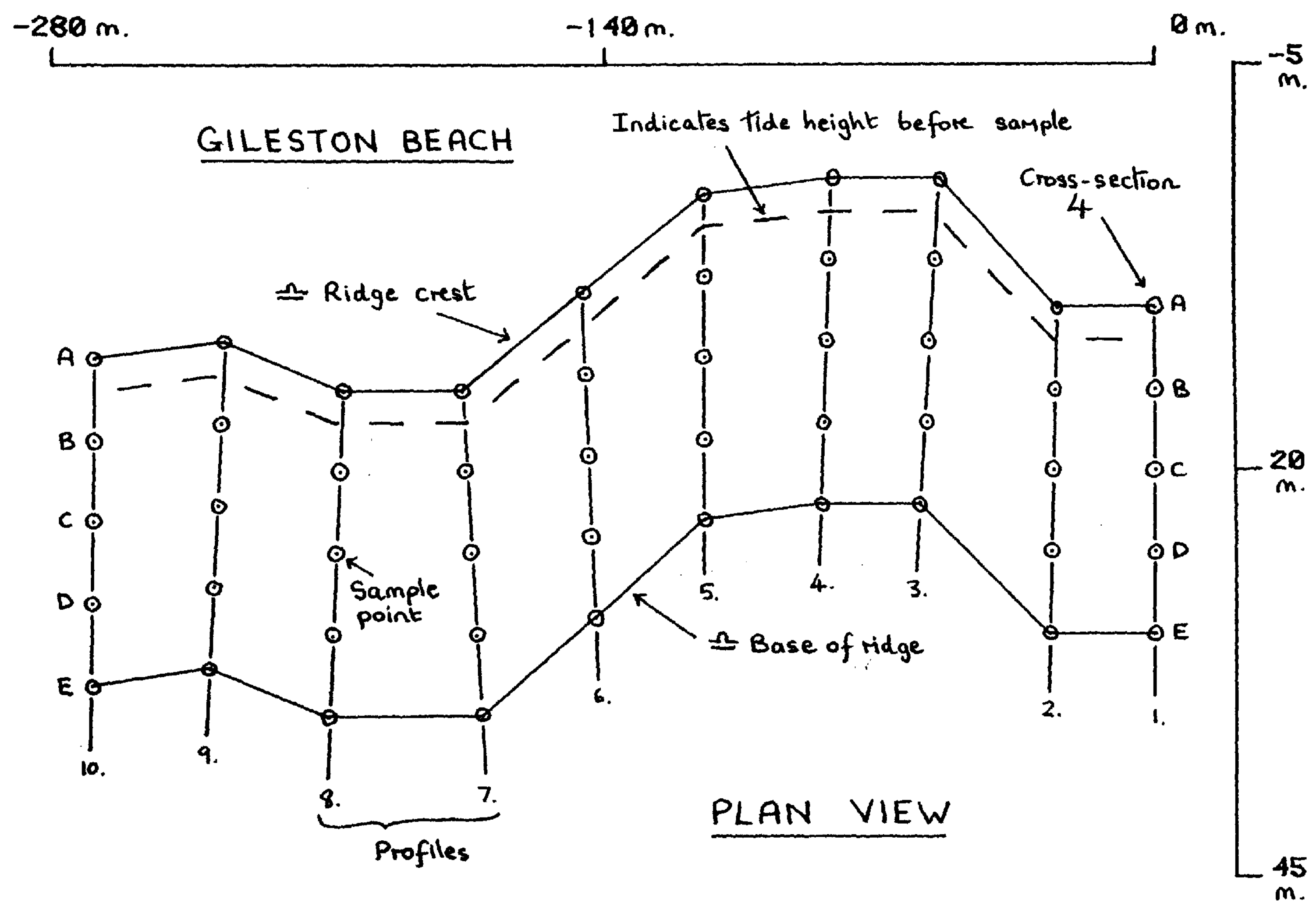


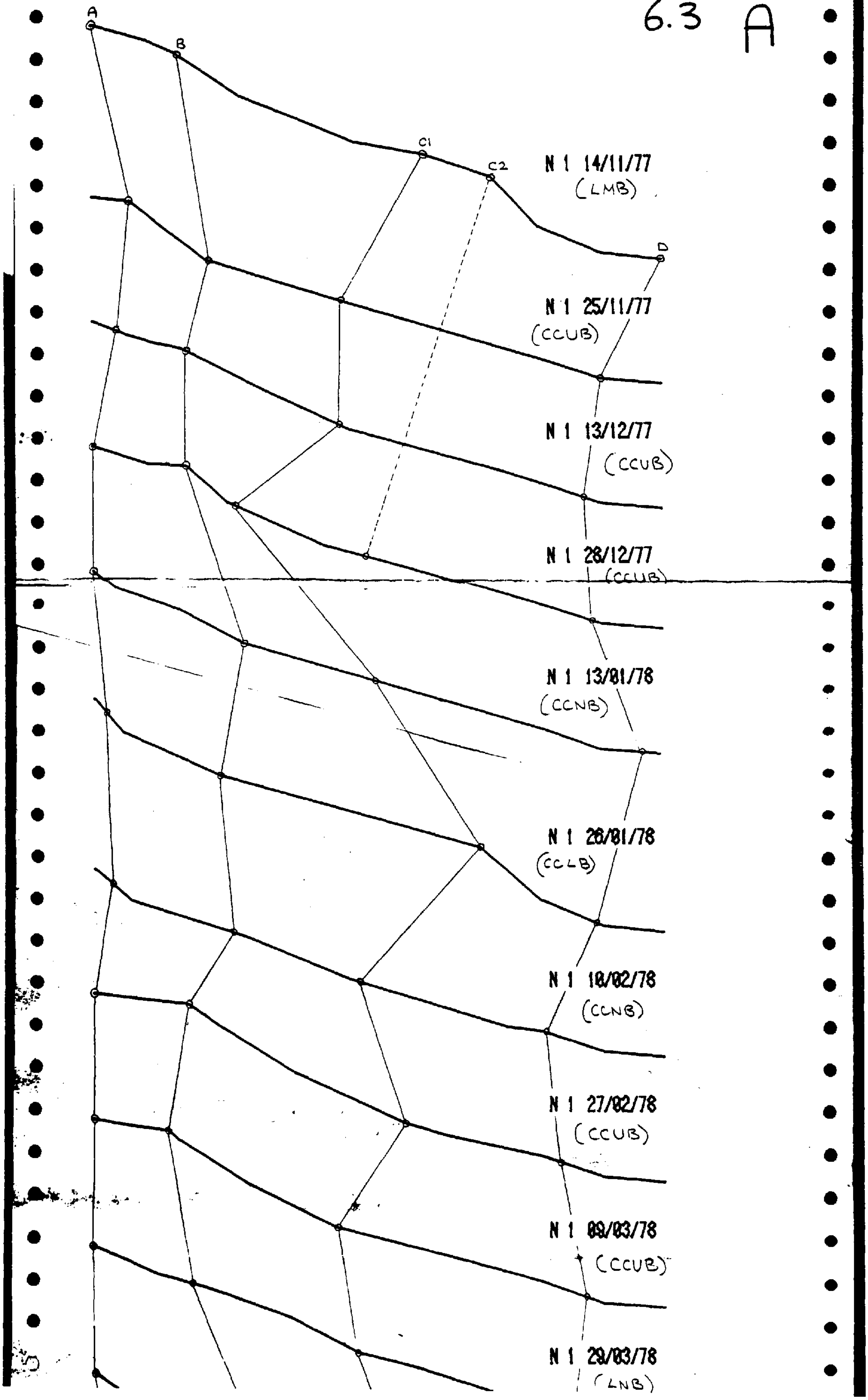
FIGURE 6.2 GRID SAMPLING FRAME ON GILESTON BEACH (Locate cross-section 4 on Fig: 5.8)

FIGURES 6.3A-D, 6.4A-D, 6.5A-D, 6.6A-D, 6.7A-D, 6.8A-D, 6.9A-D, 6.10A-D

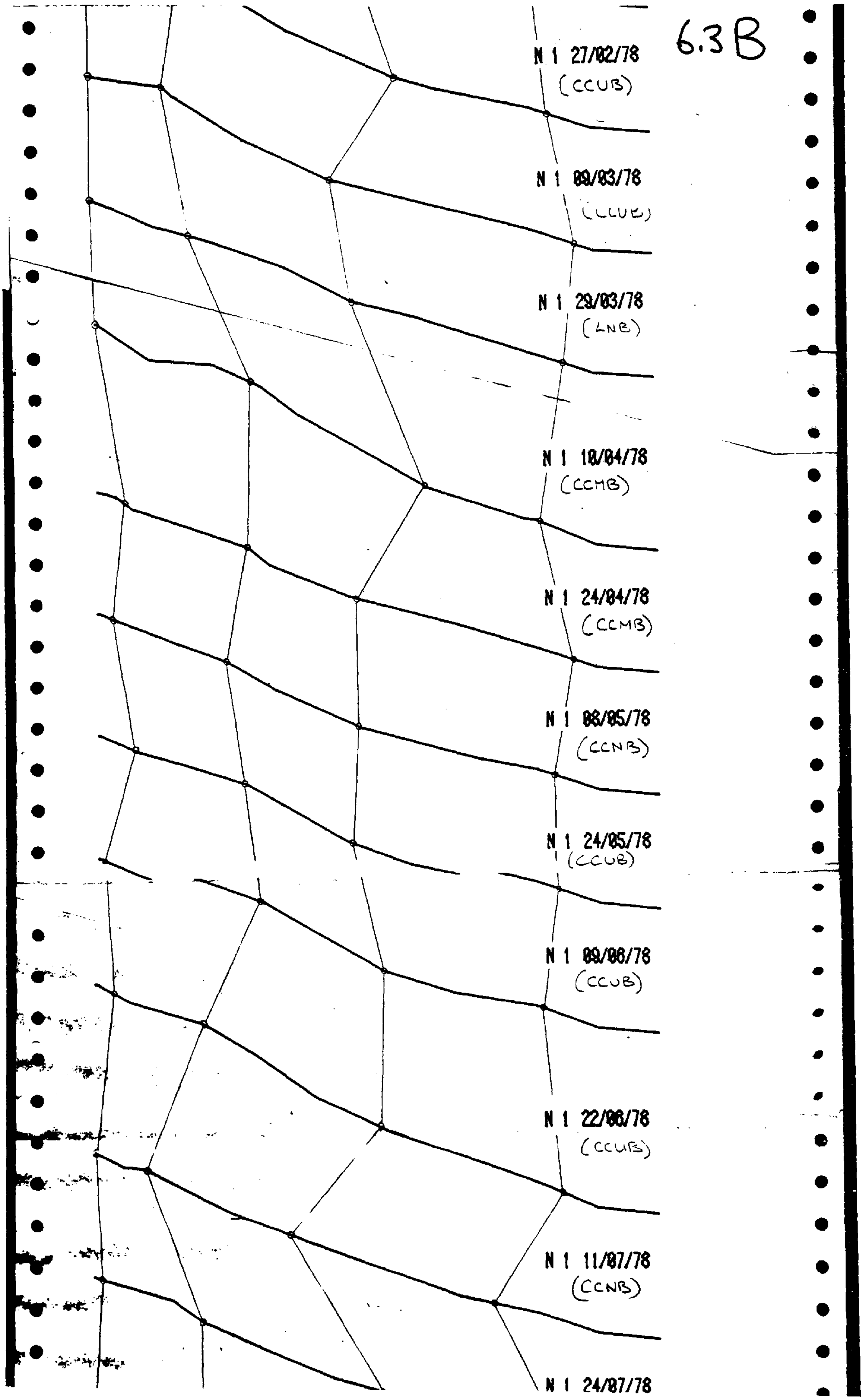
THE LOCATION OF SAMPLING POINTS ON EACH CROSS-SECTION

Each block of four diagrams (A-D) shows each consecutive profile for a particular cross-section. The beach and cross-section is indicated by each profile, together with the date of survey. Those sampling points of the standard sampling routine (Fig: 3.6) which fell on the beach face are indicated on each profile. All samples from one sampling position are joined by a line.

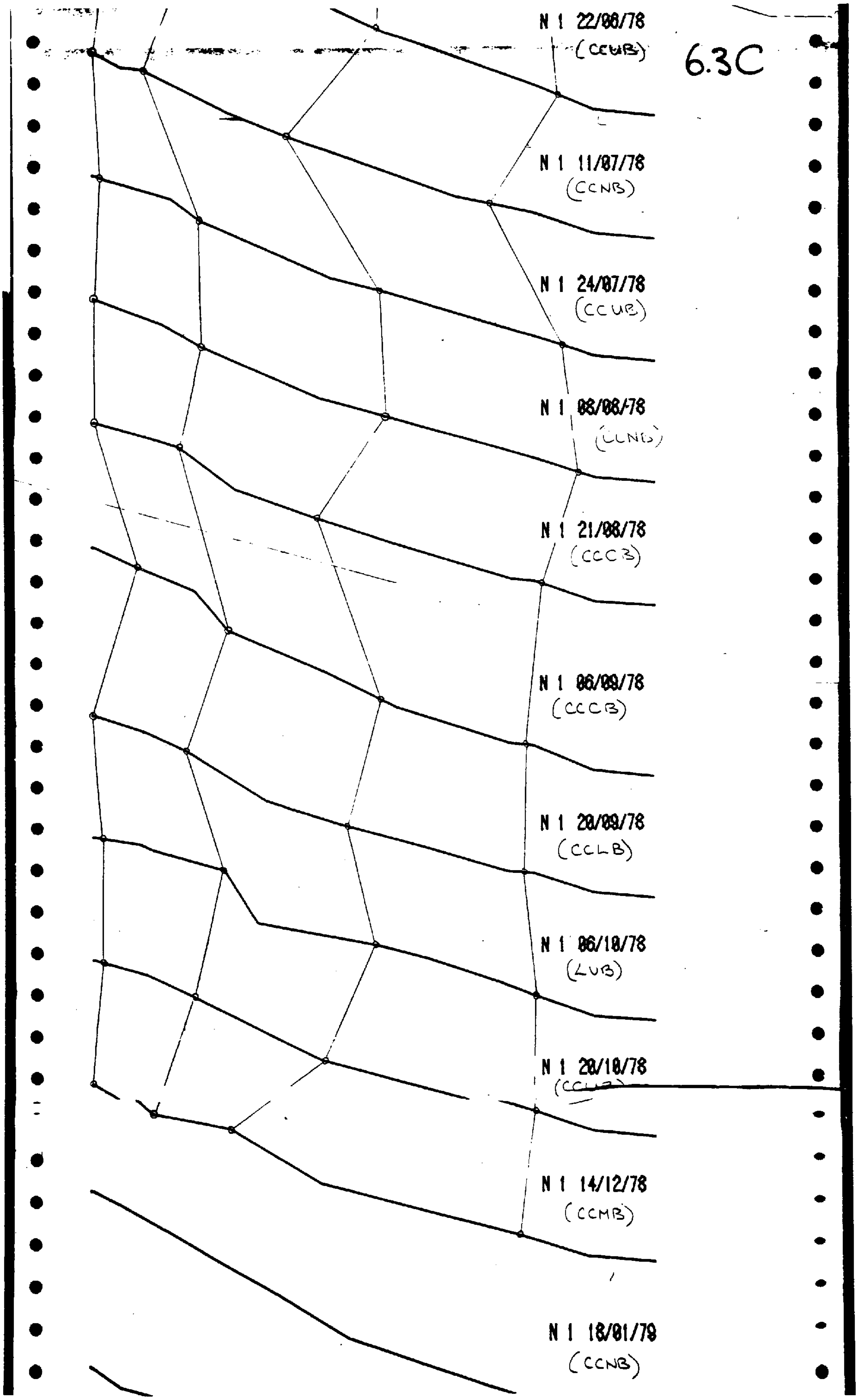
6.3 A


A
B
C1
C2
D
N 1 14/11/77
(LMB)
N 1 25/11/77
(CCUB)
N 1 13/12/77
(CCUB)
N 1 28/12/77
(CCUB)
N 1 13/01/78
(CCNB)
N 1 26/01/78
(CCLB)
N 1 10/02/78
(CCNB)
N 1 27/02/78
(CCUB)
N 1 09/03/78
(CCUB)
N 1 29/03/78
(LNB)

6.3B

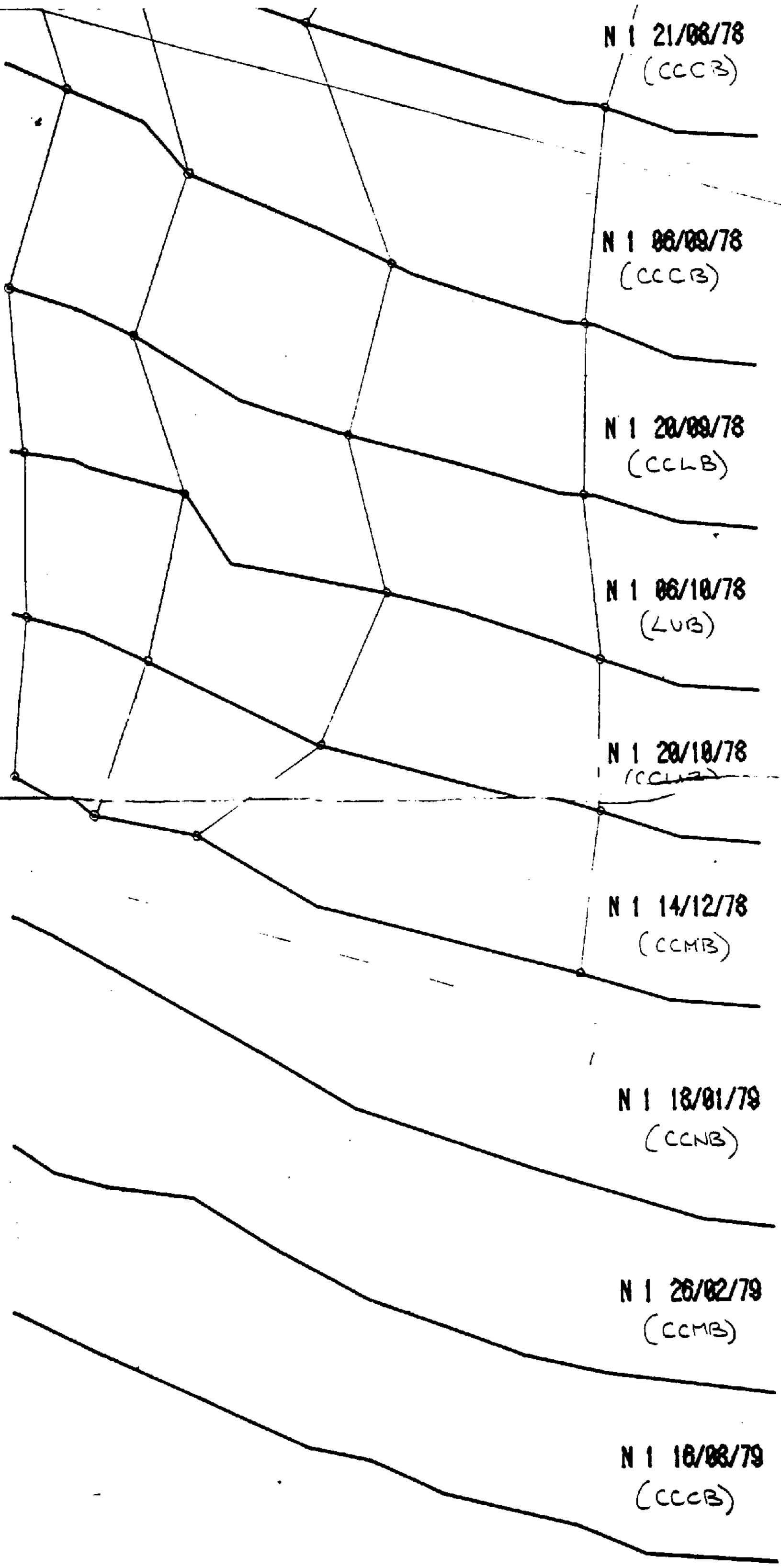

N 1 27/02/78
(CCUB)
N 1 09/03/78
N 1 29/03/78
(LNB)
N 1 10/04/78
(CCMB)
N 1 24/04/78
(CCMB)
N 1 08/05/78
(CCNB)
N 1 24/05/78
(CCUB)
N 1 09/06/78
(CCUB)
N 1 22/06/78
(CCUB)
N 1 11/07/78
(CCNB)
N 1 24/07/78

6.3C

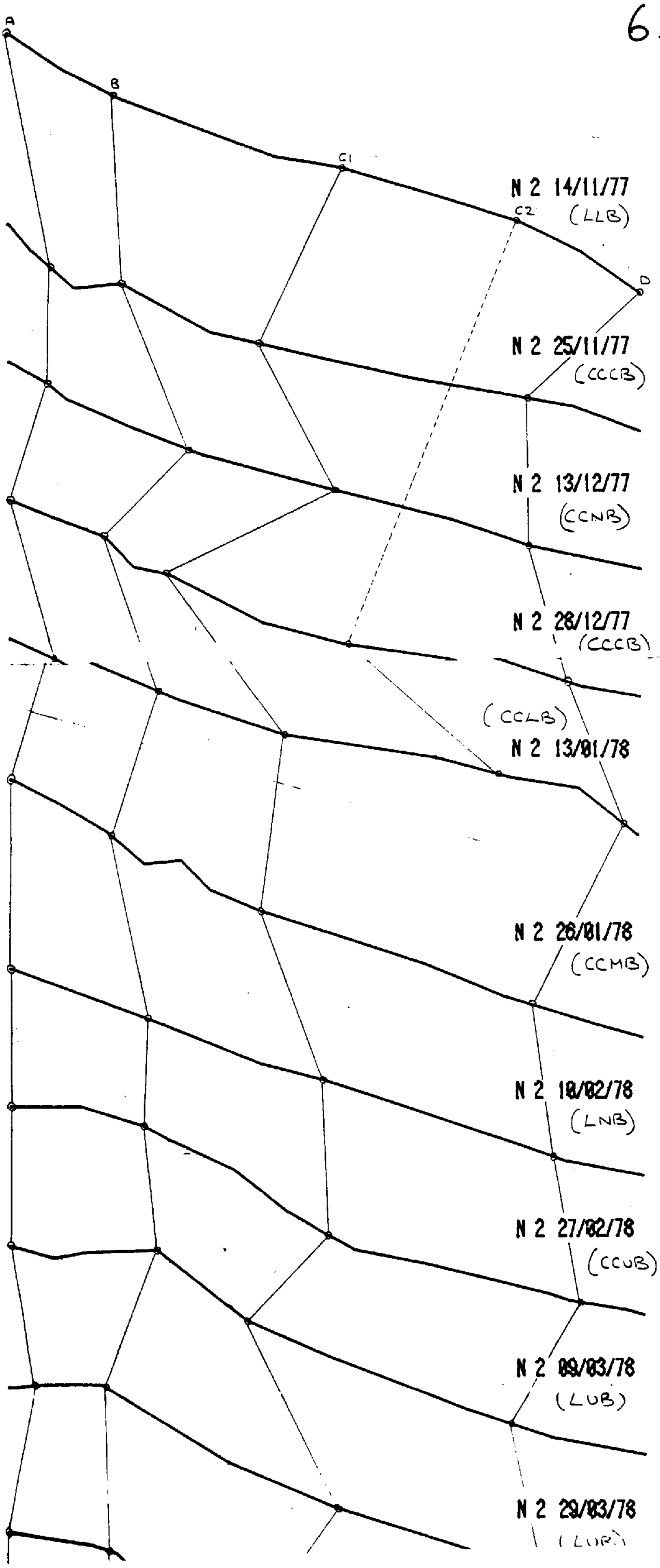


N 1 22/06/78
(CCUB)
N 1 11/07/78
(CCNB)
N 1 24/07/78
(CCUB)
N 1 08/08/78
(CCNB)
N 1 21/08/78
(CCCB)
N 1 06/09/78
(CCCB)
N 1 20/09/78
(CCLB)
N 1 06/10/78
(LUB)
N 1 20/10/78
N 1 14/12/78
(CCMB)
N 1 18/01/79
(CCNB)

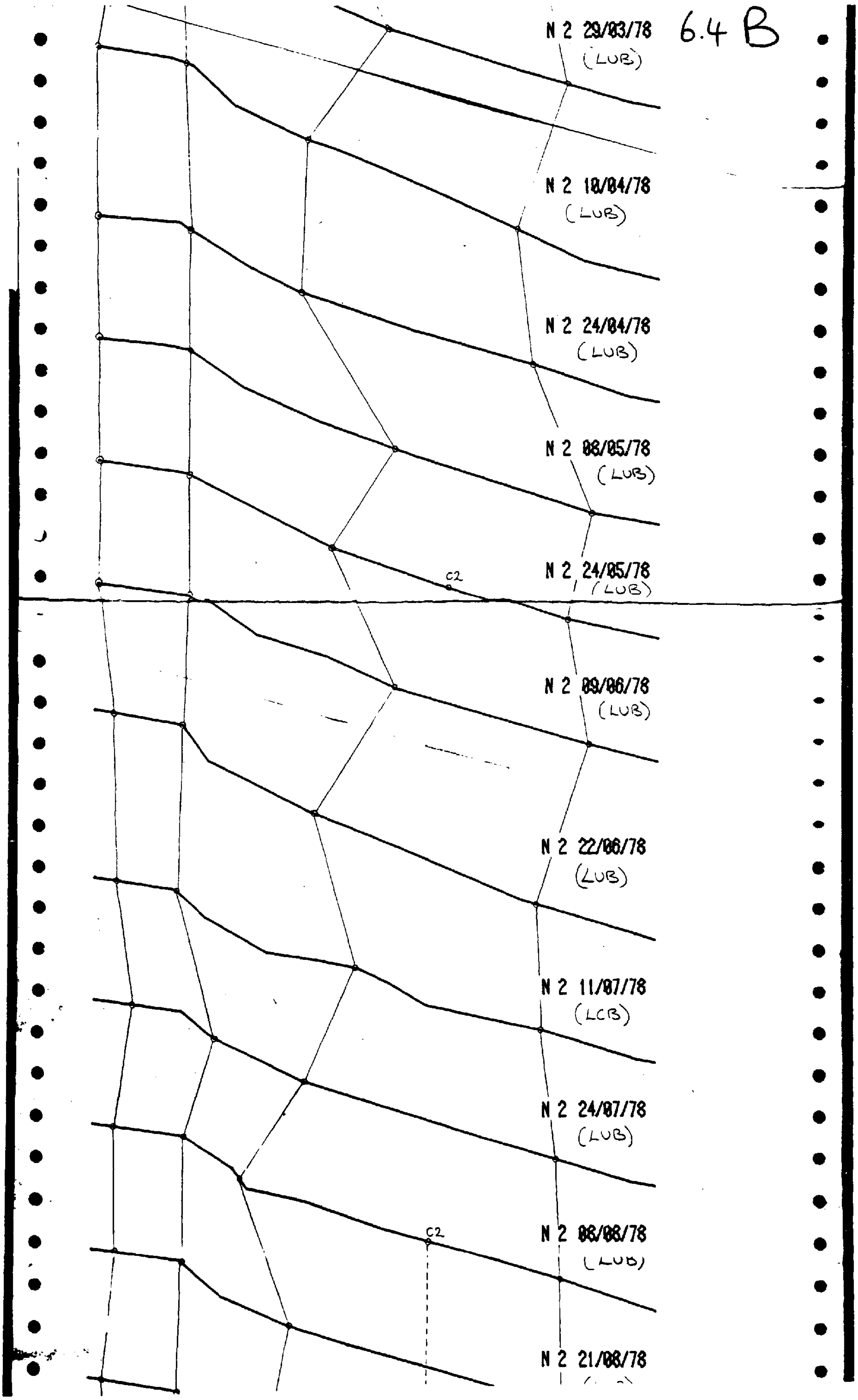
6.3D


N 1 21/08/78
(CCCB)
N 1 06/09/78
(CCCB)
N 1 20/09/78
(CCLB)
N 1 06/10/78
(LUB)
N 1 20/10/78
N 1 14/12/78
(CCMB)
N 1 18/01/79
(CCNB)
N 1 26/02/79
(CCMB)
N 1 16/03/79
(CCCB)

6.4 A

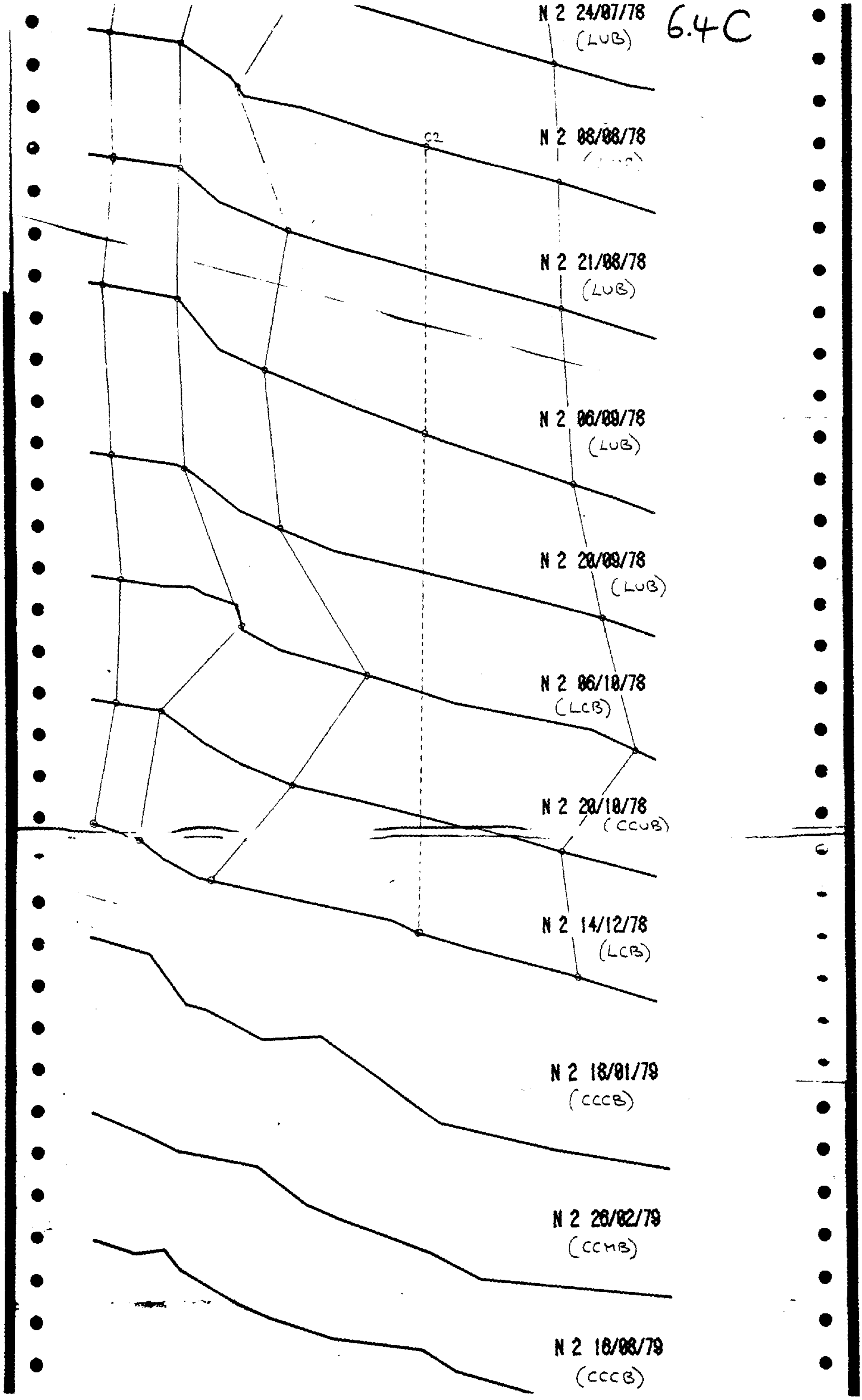

A
B
C1
C2
D
N 2 14/11/77
(LLB)
N 2 25/11/77
(CCCB)
N 2 13/12/77
(CCNB)
N 2 28/12/77
(CCCB)
(CCLB)
N 2 13/01/78
N 2 26/01/78
(CCMB)
N 2 10/02/78
(LNB)
N 2 27/02/78
(CCUB)
N 2 09/03/78
(LUB)
N 2 29/03/78
(LUB)

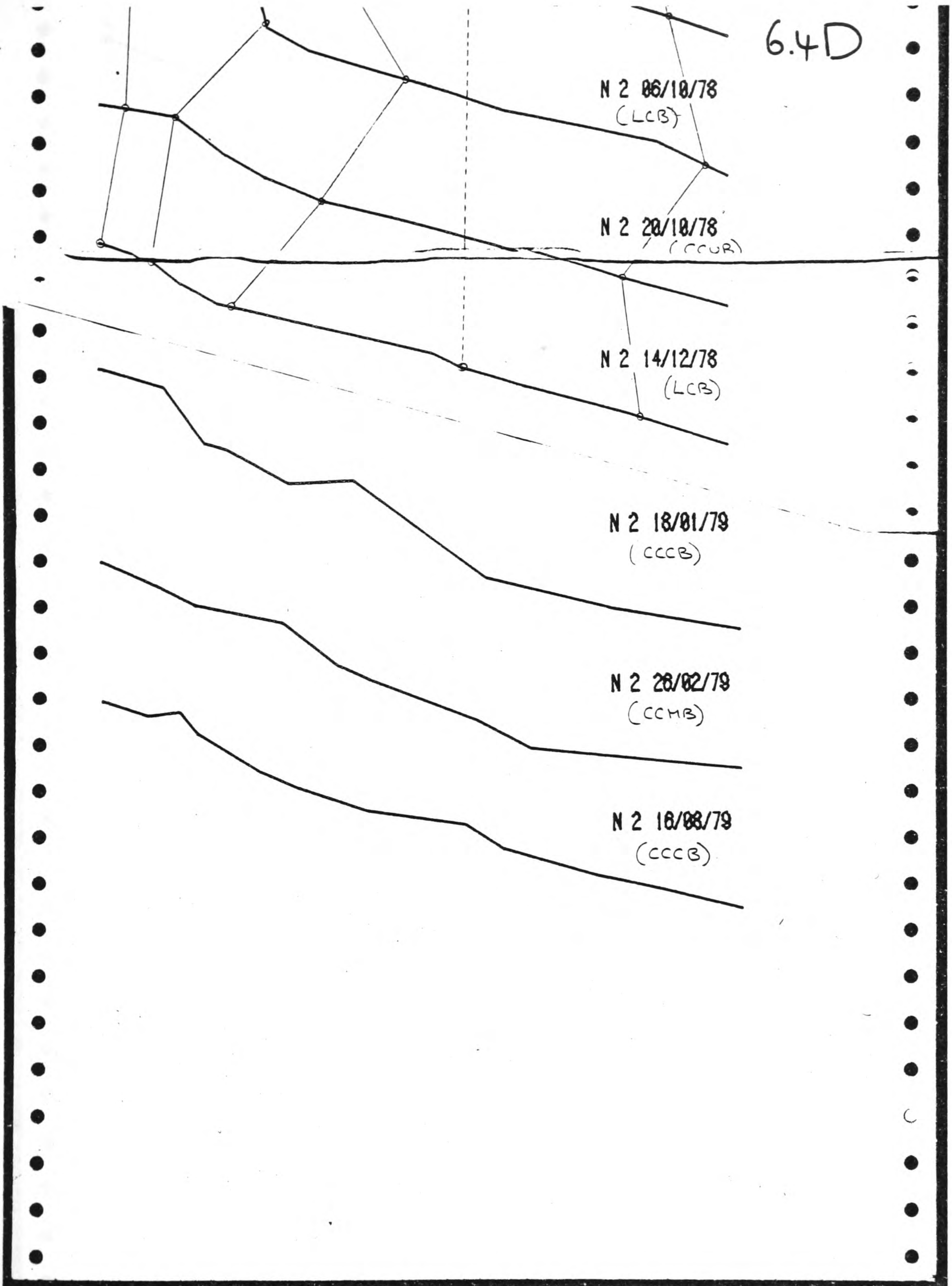
6.4 B



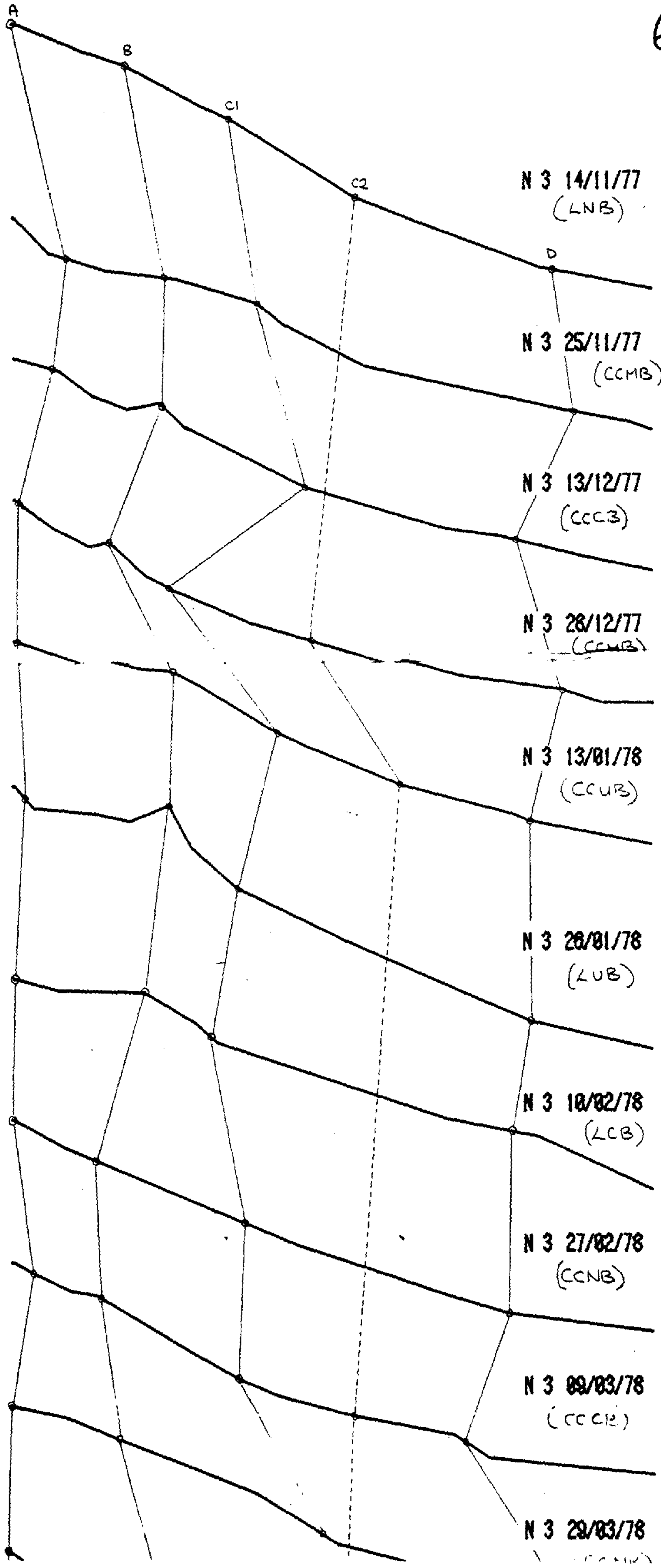
N 2 29/03/78
(LUB)
N 2 18/04/78
(LUB)
N 2 24/04/78
(LUB)
N 2 08/05/78
(LUB)
C2
N 2 24/05/78
(LUB)
N 2 09/06/78
(LUB)
N 2 22/06/78
(LUB)
N 2 11/07/78
(LCB)
N 2 24/07/78
(LUB)
C2
N 2 08/08/78
(LUB)
N 2 21/08/78

6.4C

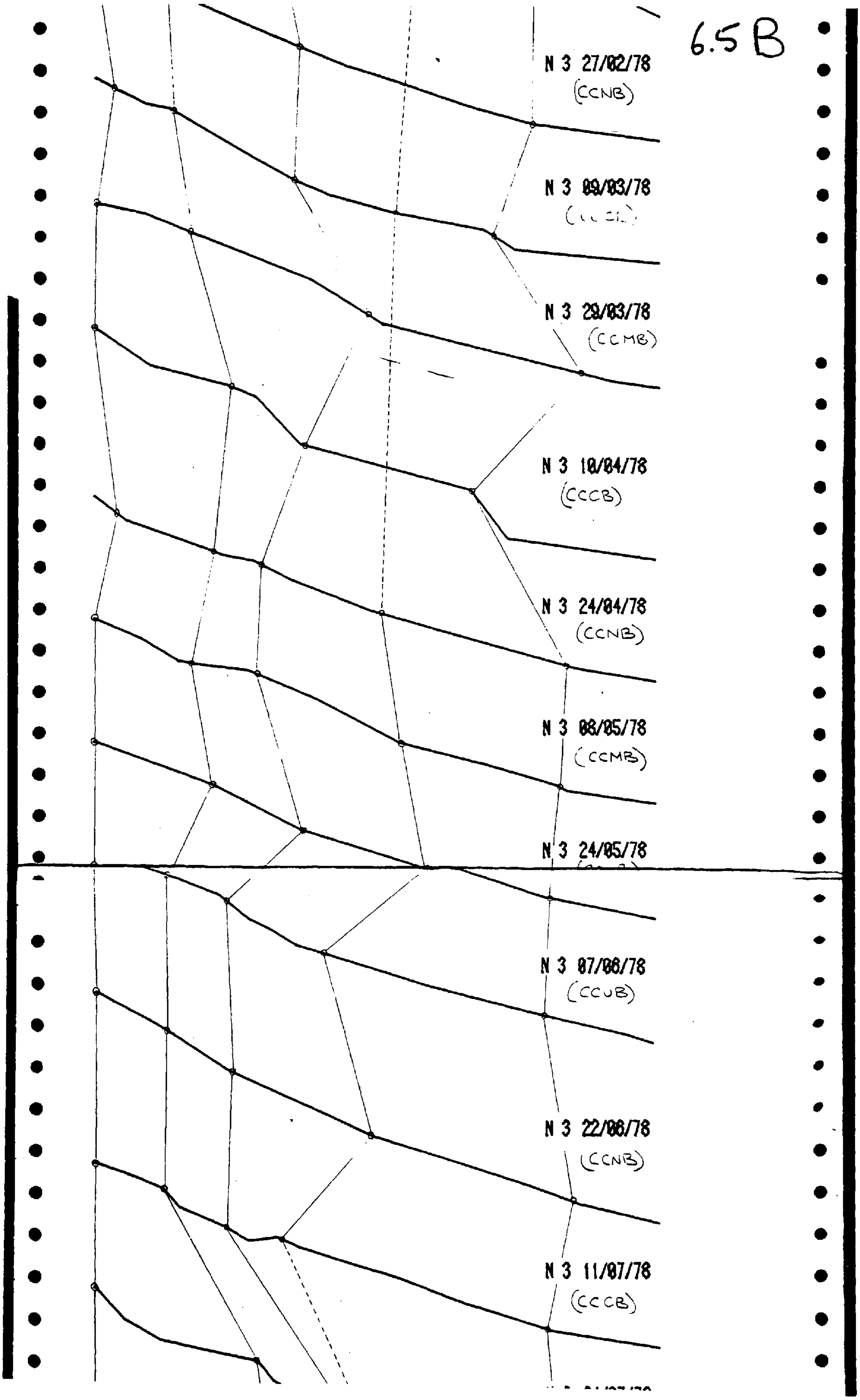

N 2 24/07/78
(LUB)
C2
N 2 08/08/78
N 2 21/08/78
(LUB)
N 2 06/09/78
(LUB)
N 2 20/09/78
(LUB)
N 2 06/10/78
(LCB)
N 2 20/10/78
(CCUB)
N 2 14/12/78
(LCB)
N 2 18/01/79
(CCCB)
N 2 20/02/79
(CCMB)
N 2 18/08/79
(CCCB)


6.4D
N 2 06/10/78
(LCB)
N 2 20/10/78
(CCUB)
N 2 14/12/78
(LCB)
N 2 18/01/79
(CCCB)
N 2 26/02/79
(CCMB)
N 2 16/03/79
(CCCB)

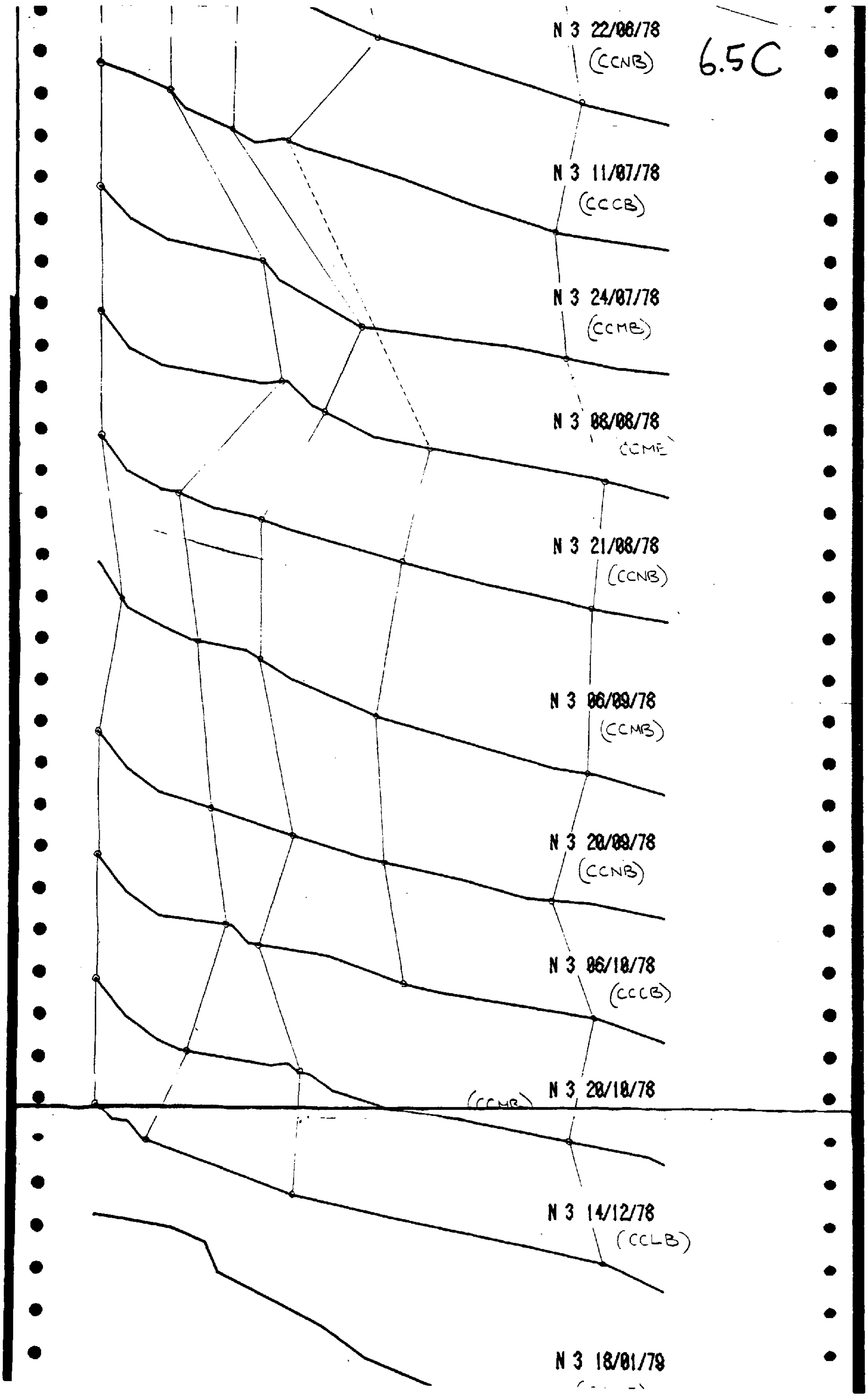
6,5 A


A
B
C1
C2
D
N 3 14/11/77
(LNB)
N 3 25/11/77
(CCMB)
N 3 13/12/77
(CCCB)
N 3 28/12/77
N 3 13/01/78
(CCUB)
N 3 26/01/78
(LUB)
N 3 10/02/78
(LCB)
N 3 27/02/78
(CCNB)
N 3 09/03/78
(CCCB)
N 3 29/03/78

6.5B

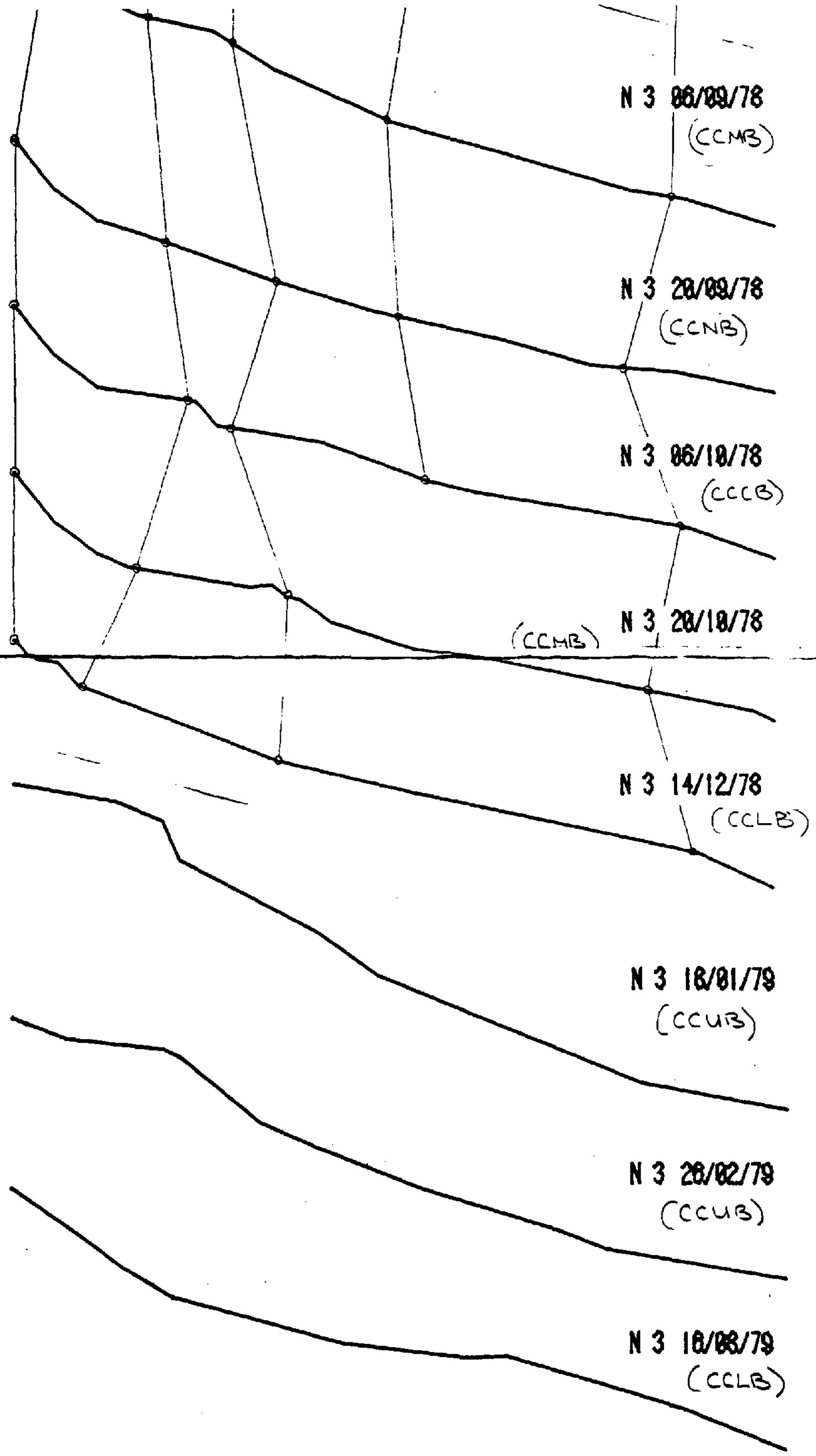


N 3 27/02/78
(CCNB)
N 3 09/03/78
N 3 29/03/78
(CCMB)
N 3 10/04/78
(CCCB)
N 3 24/04/78
(CCNB)
N 3 08/05/78
(CCMB)
N 3 24/05/78
N 3 07/06/78
(CCUB)
N 3 22/06/78
(CCNB)
N 3 11/07/78
(CCCB)



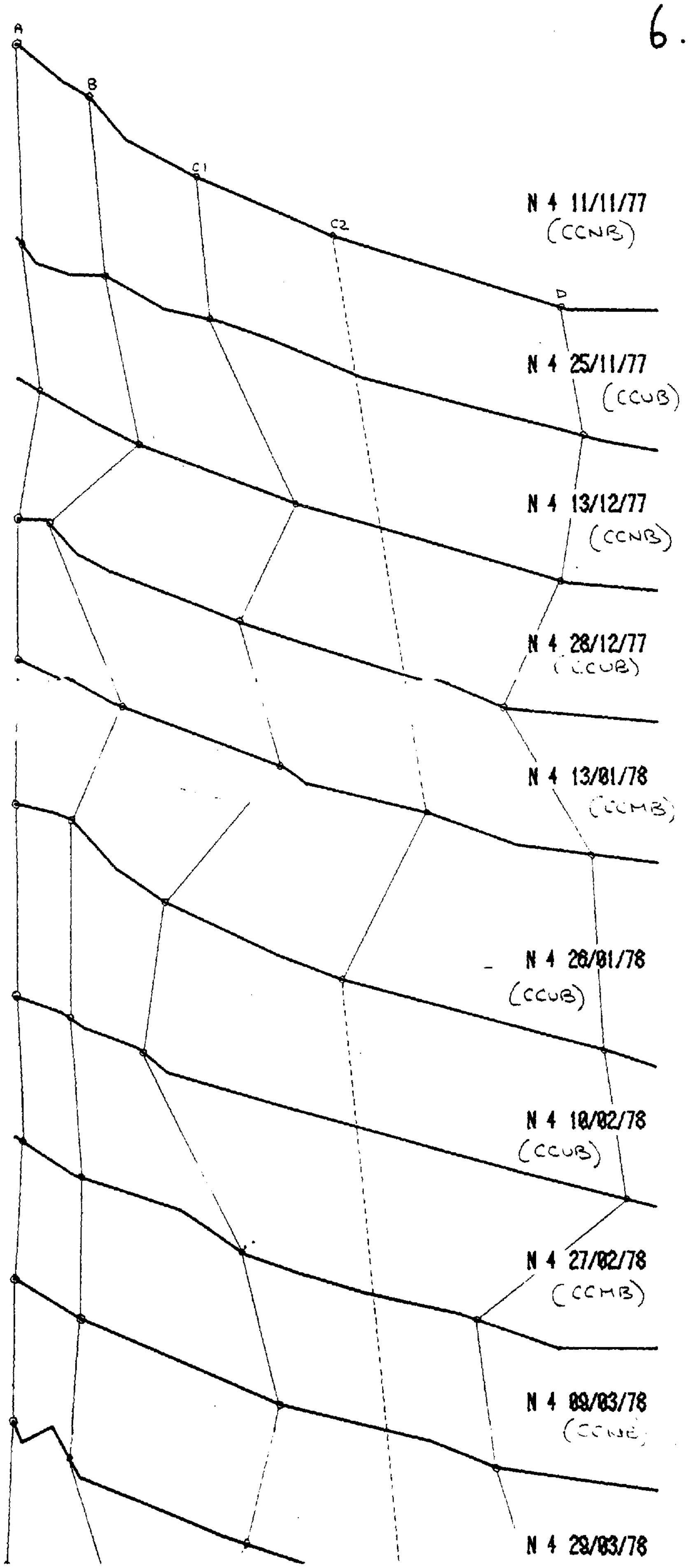
N 3 22/06/78
(CCNB)
6.5C
N 3 11/07/78
(CCCB)
N 3 24/07/78
(CCMB)
N 3 08/08/78
N 3 21/08/78
(CCNB)
N 3 06/09/78
(CCMB)
N 3 20/09/78
(CCNB)
N 3 06/10/78
(CCCB)
(CCMB)
N 3 20/10/78
N 3 14/12/78
(CCLB)
N 3 18/01/79

6.5D

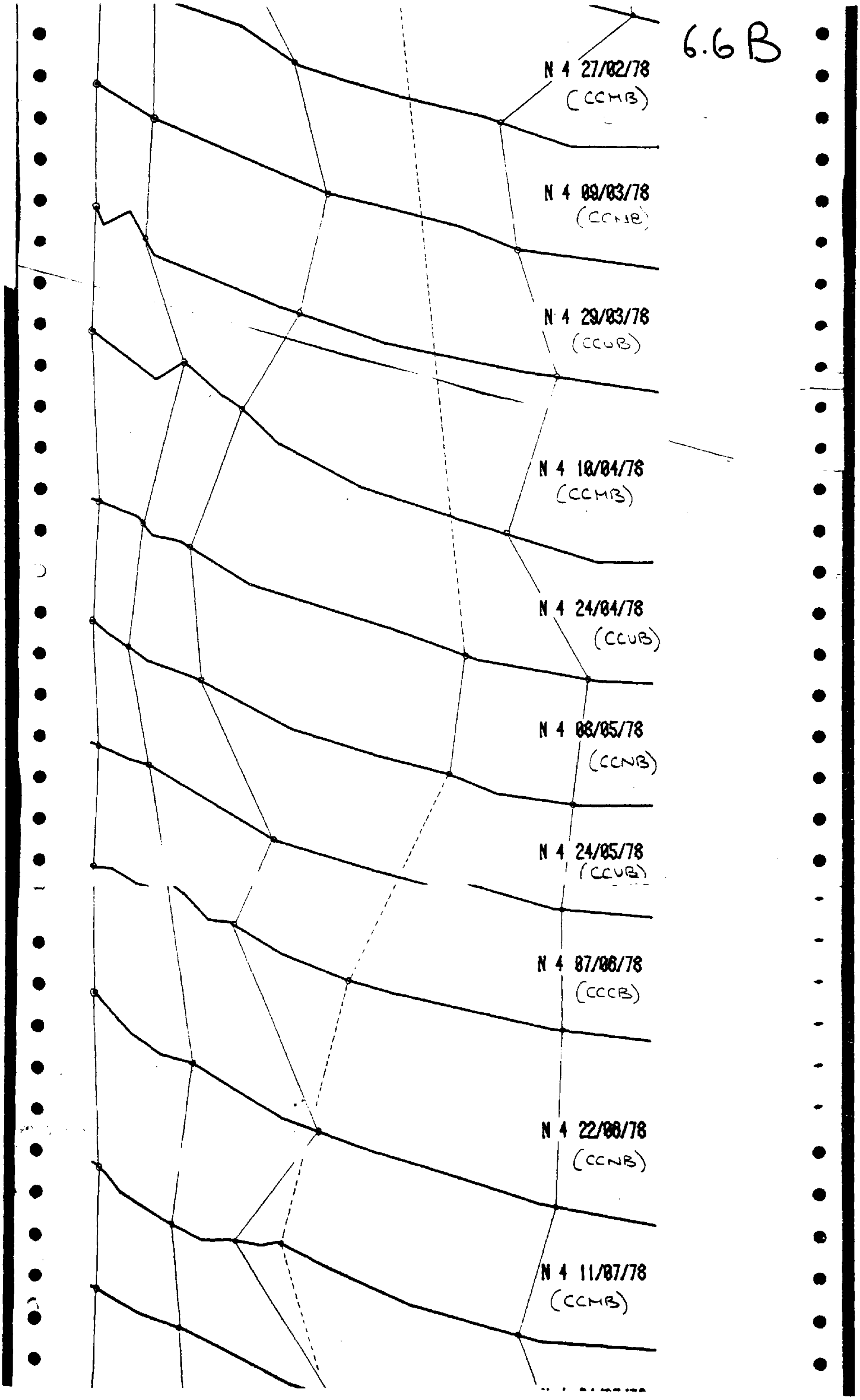


N 3 06/09/78
(CCMB)
N 3 20/09/78
(CCNB)
N 3 06/10/78
(CCCB)
(CCMB)
N 3 20/10/78
N 3 14/12/78
(CCLB)
N 3 16/01/79
(CCUB)
N 3 20/02/79
(CCUB)
N 3 16/03/79
(CCLB)

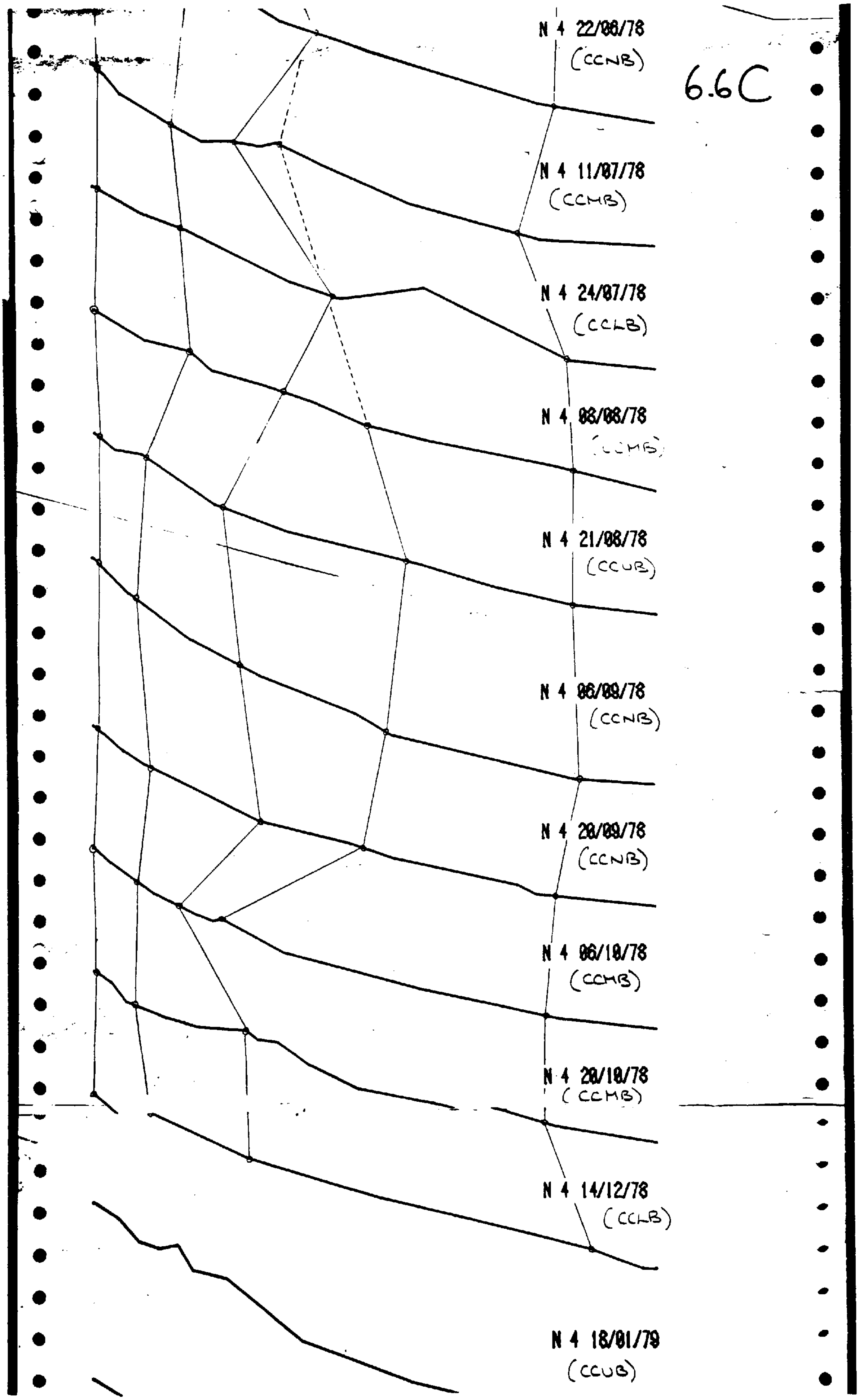
6.6 A


A
B
C1
C2
D
N 4 11/11/77
(CCNB)
N 4 25/11/77
(CCUB)
N 4 13/12/77
(CCNB)
N 4 28/12/77
(CCUB)
N 4 13/01/78
(CCMB)
N 4 26/01/78
(CCUB)
N 4 10/02/78
(CCUB)
N 4 27/02/78
(CCMB)
N 4 09/03/78
(CCNB)
N 4 29/03/78

6.6B

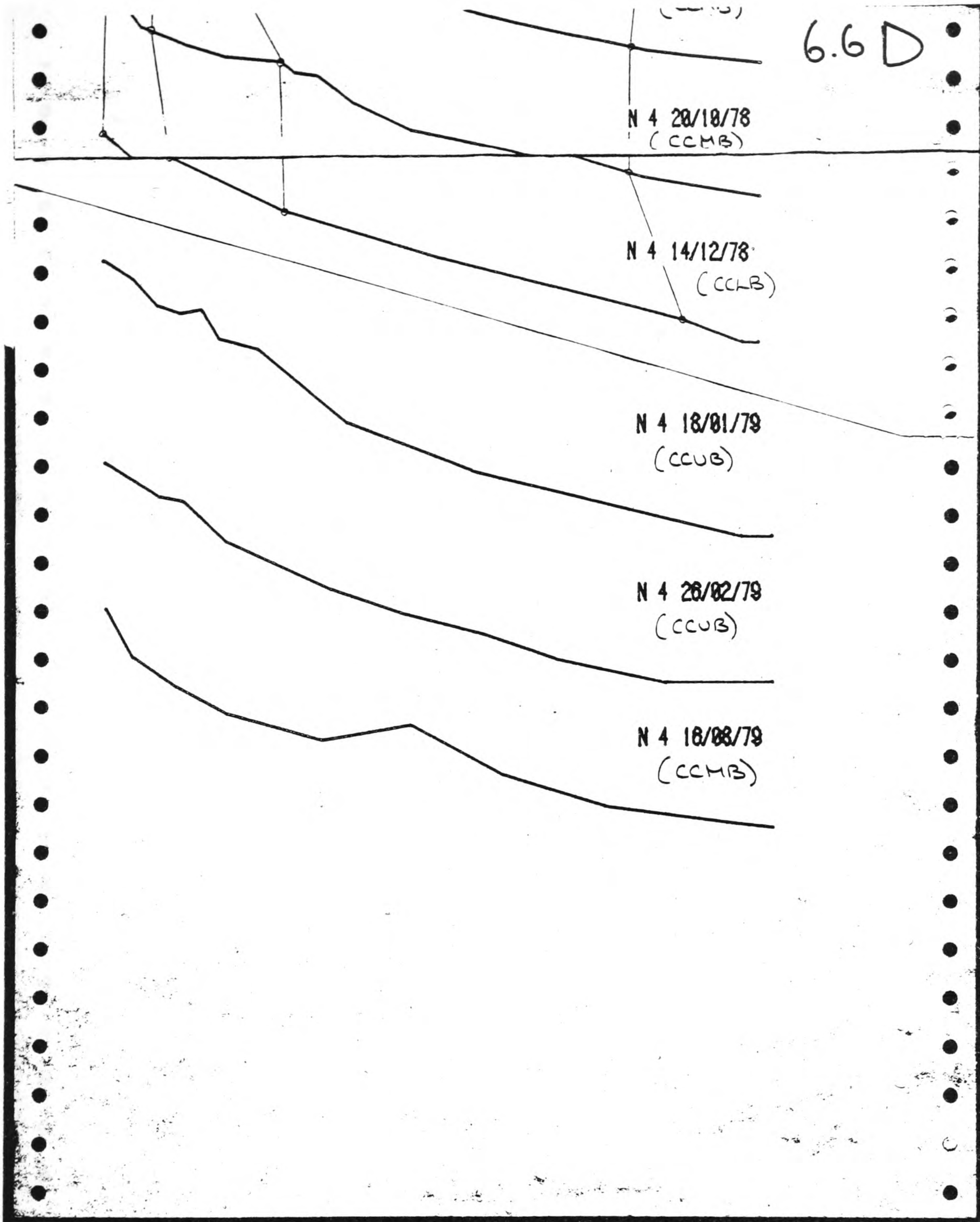

N 4 27/02/78
(CCMB)
N 4 09/03/78
(CCNB)
N 4 29/03/78
(CCUB)
N 4 10/04/78
(CCMB)
N 4 24/04/78
(CCUB)
N 4 08/05/78
(CCNB)
N 4 24/05/78
(CCUB)
N 4 07/06/78
(CCCB)
N 4 22/06/78
(CCNB)
N 4 11/07/78
(CCMB)

6.6C



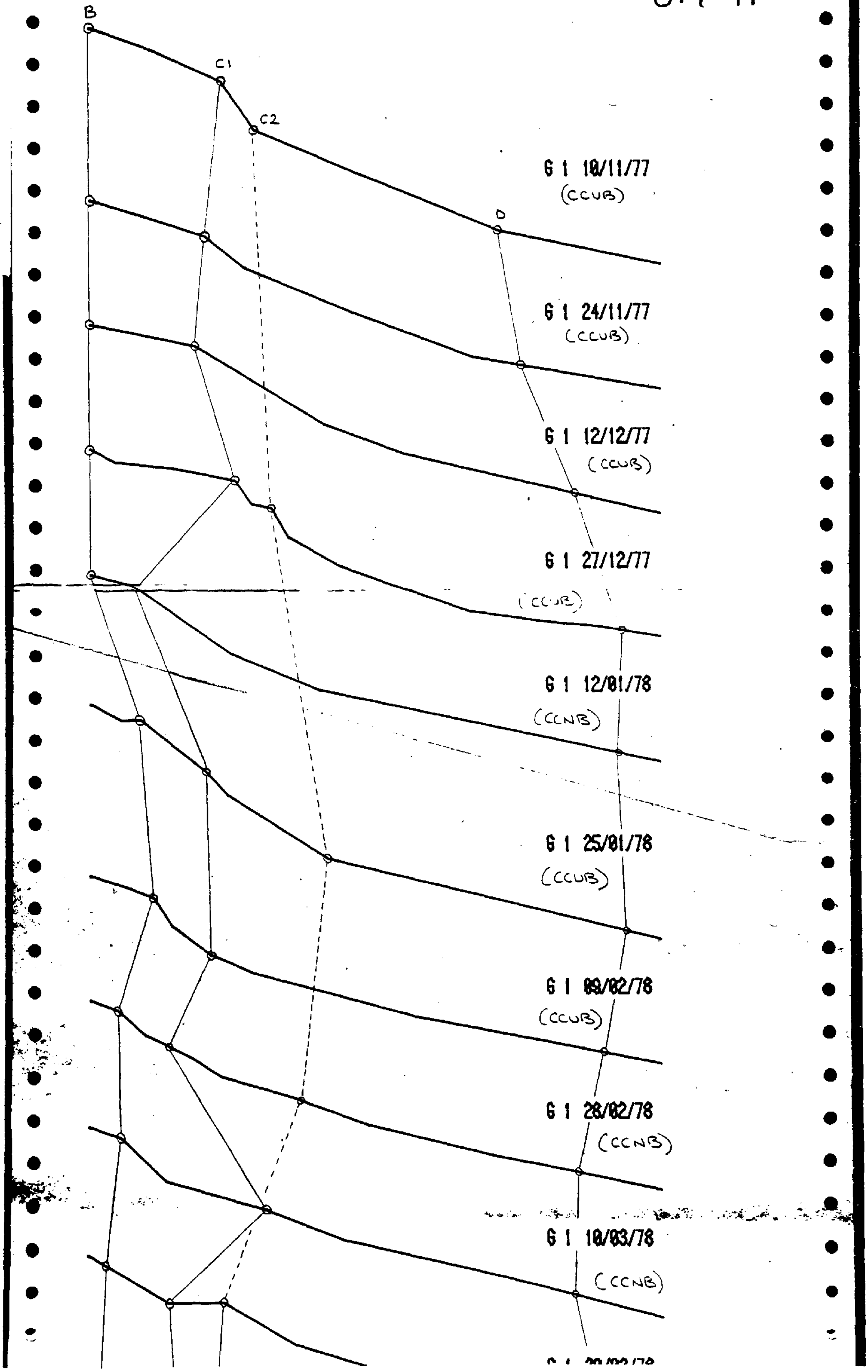
N 4 22/06/78
(CCNB)
N 4 11/07/78
(CCMB)
N 4 24/07/78
(CCLB)
N 4 08/08/78
(CCMB)
N 4 21/08/78
(CCUB)
N 4 06/09/78
(CCNB)
N 4 20/09/78
(CCNB)
N 4 06/10/78
(CCMB)
N 4 20/10/78
(CCMB)
N 4 14/12/78
(CCLB)
N 4 18/01/79
(CCUB)

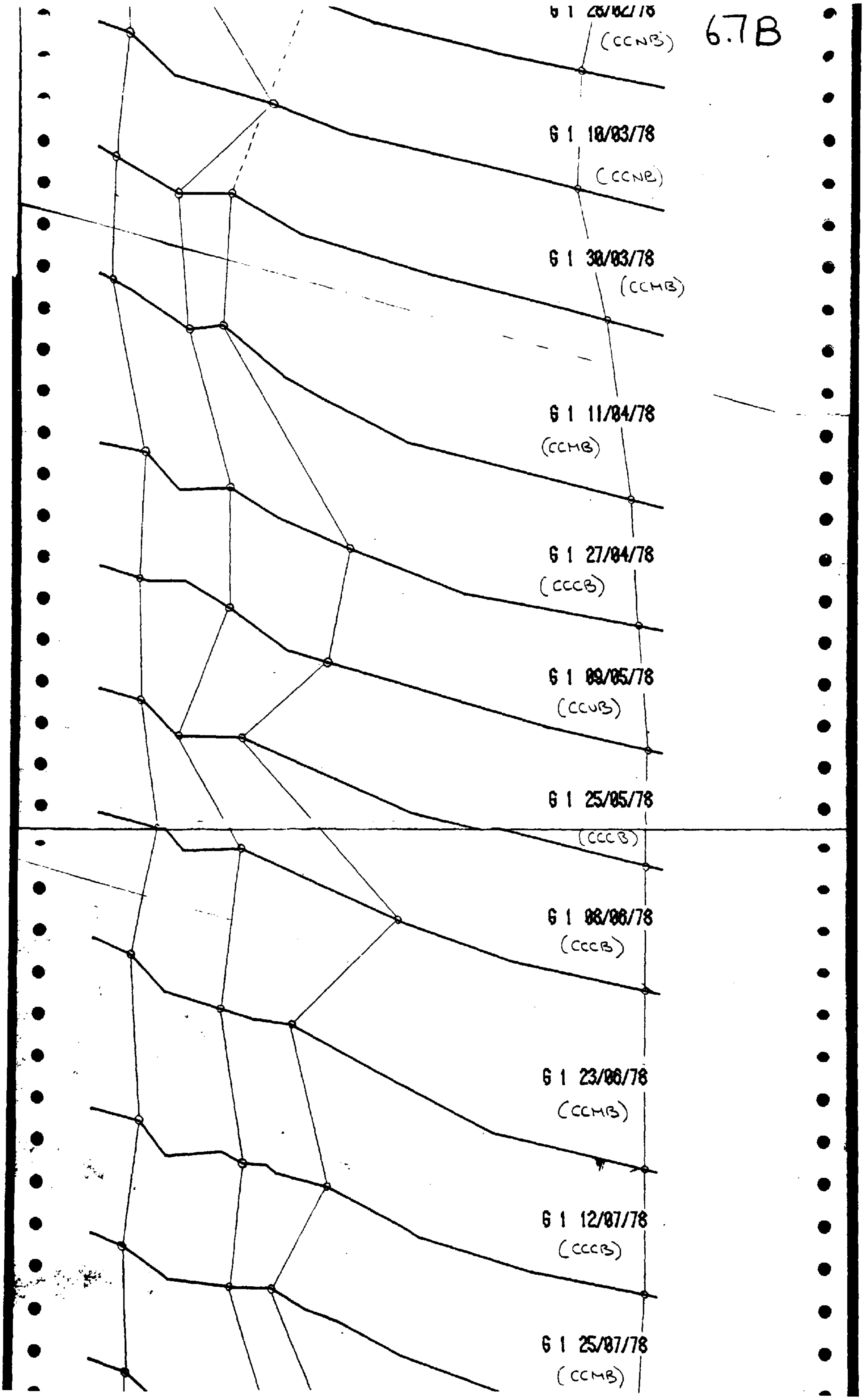
6.6D



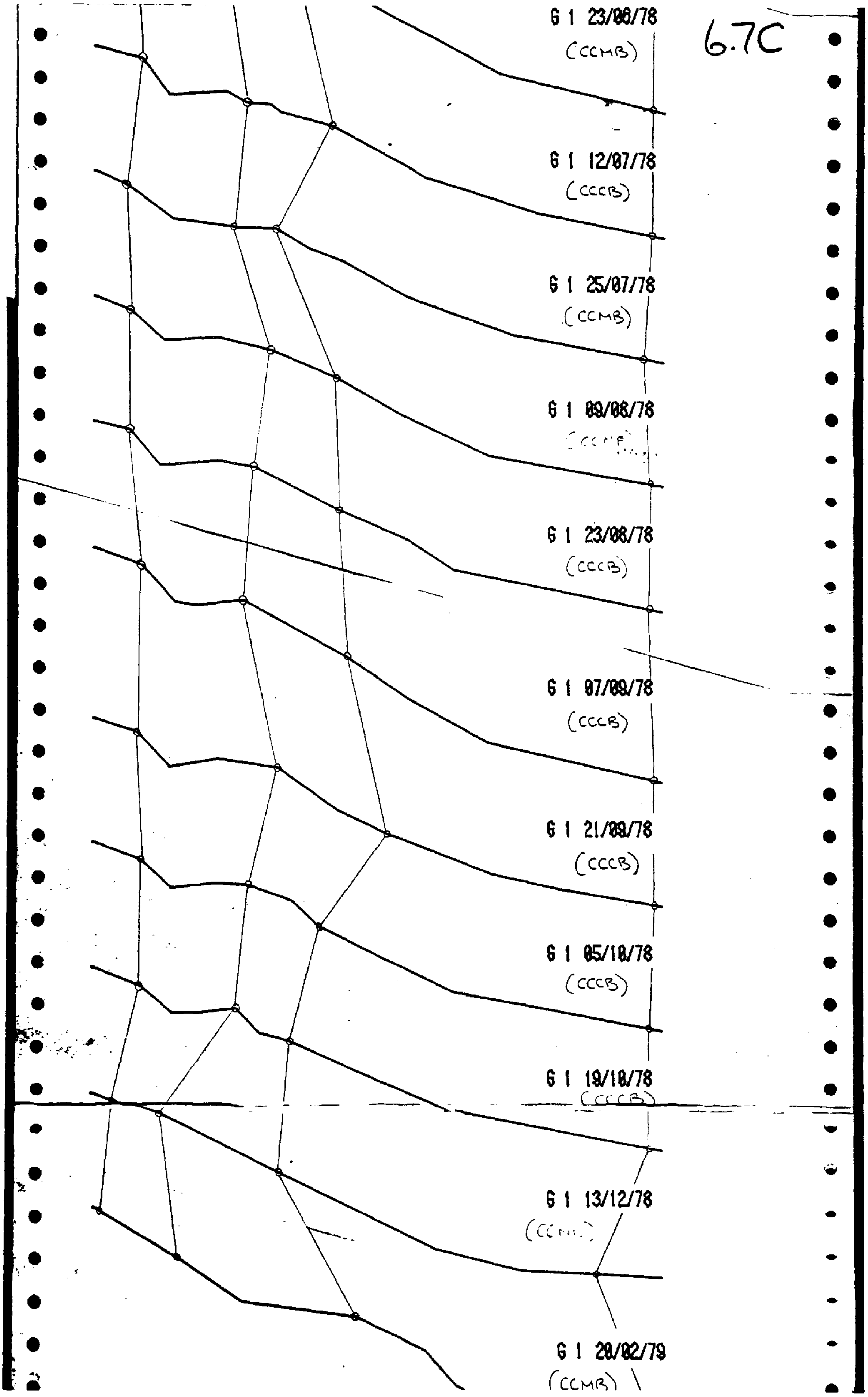
N 4 20/10/78
(CCMB)
N 4 14/12/78
(CCLB)
N 4 18/01/79
(CCUB)
N 4 20/02/79
(CCUB)
N 4 16/03/79
(CCMB)

6.7 A

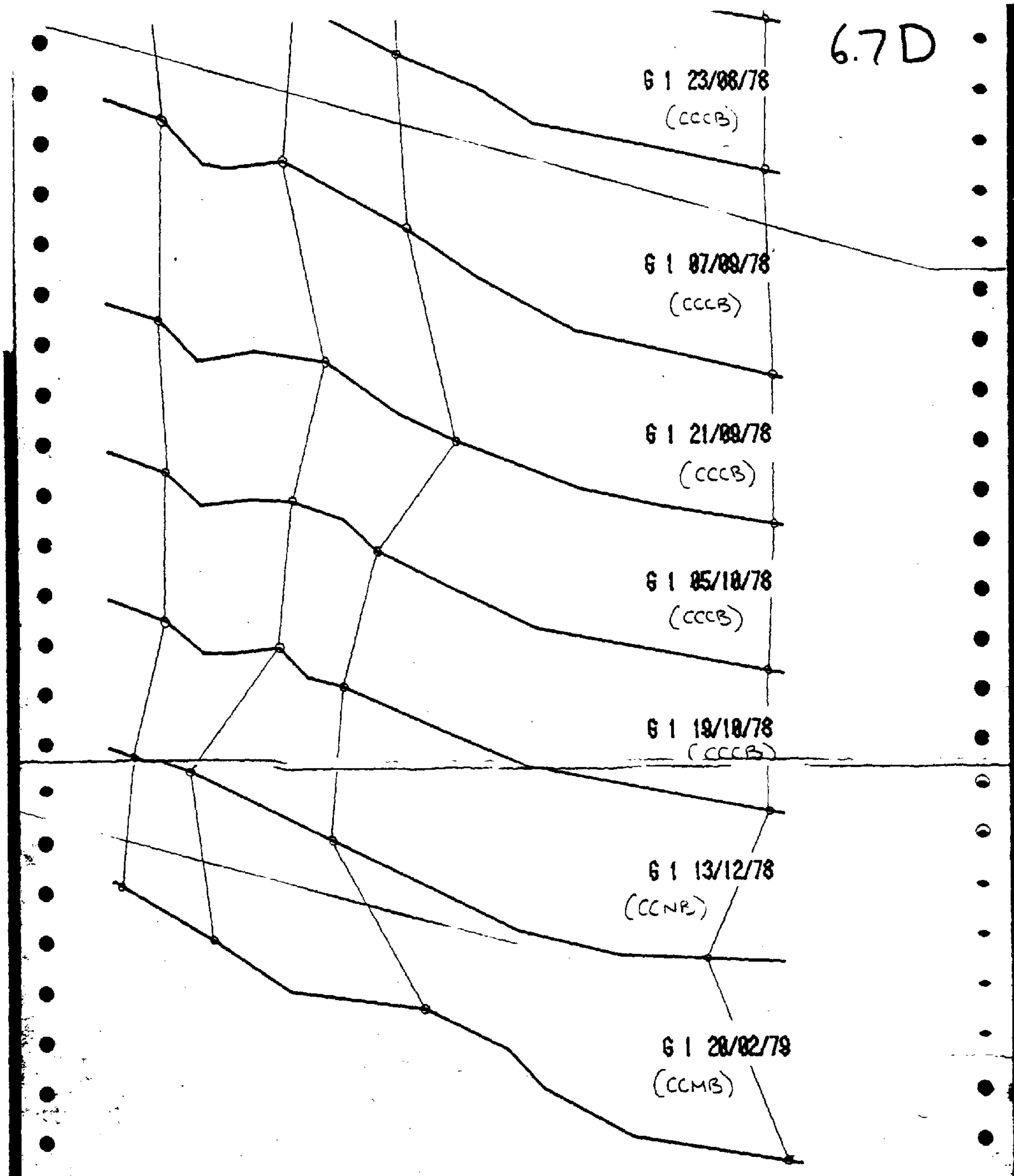

B
C1
C2
D
G 1 10/11/77
(CCUB)
G 1 24/11/77
(CCUB)
G 1 12/12/77
(CCUB)
G 1 27/12/77
(CCUB)
G 1 12/01/78
(CCNB)
G 1 25/01/78
(CCUB)
G 1 09/02/78
(CCUB)
G 1 28/02/78
(CCNB)
G 1 10/03/78
(CCNB)


6.7B
(CCNB)
G 1 10/03/78
(CCNB)
G 1 30/03/78
(CCMB)
G 1 11/04/78
(CCMB)
G 1 27/04/78
(CCCB)
G 1 09/05/78
(CCUB)
G 1 25/05/78
(CCCB)
G 1 08/06/78
(CCCB)
G 1 23/06/78
(CCMB)
G 1 12/07/78
(CCCB)
G 1 25/07/78
(CCMB)

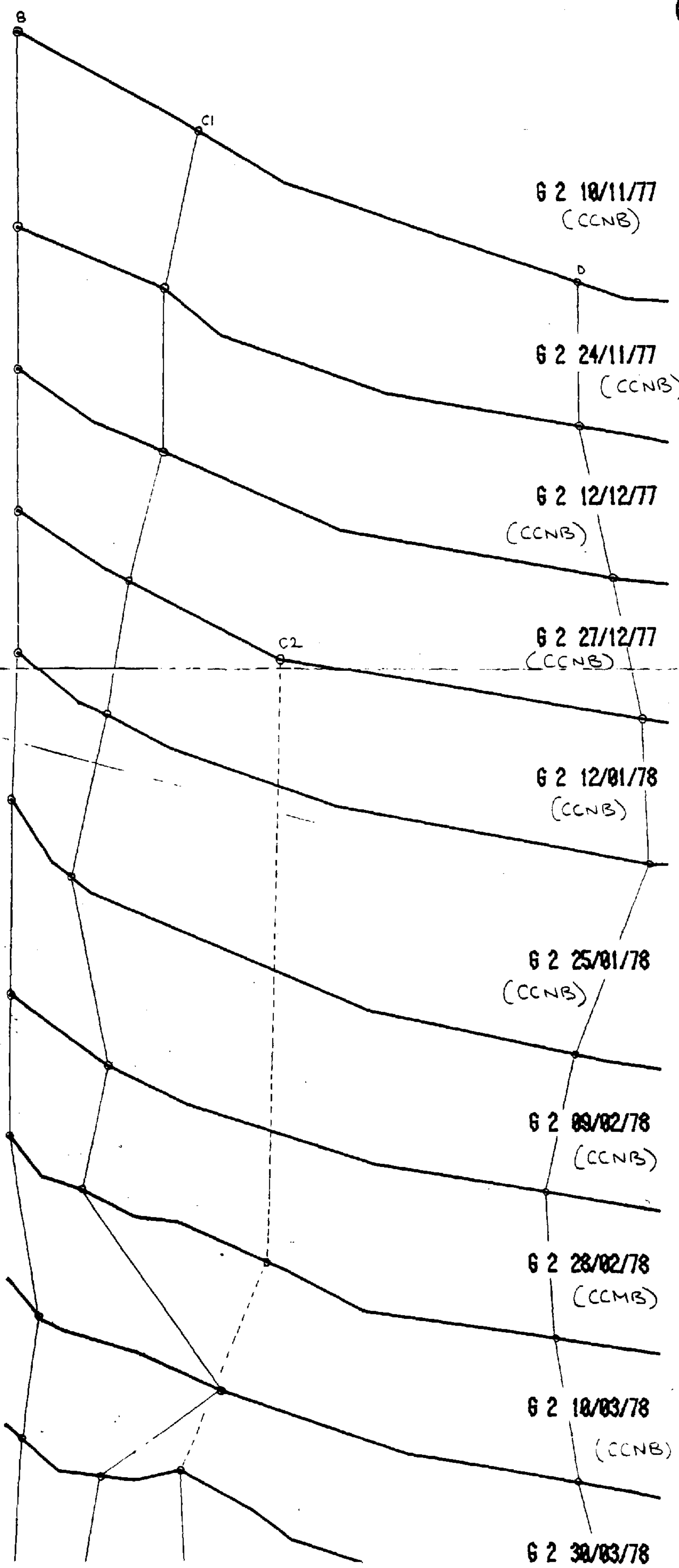
6.7C


G 1 23/06/78
(CCMB)
G 1 12/07/78
(CCCB)
G 1 25/07/78
(CCMB)
G 1 09/08/78
G 1 23/08/78
(CCCB)
G 1 07/09/78
(CCCB)
G 1 21/09/78
(CCCB)
G 1 05/10/78
(CCCB)
G 1 19/10/78
(CCCB)
G 1 13/12/78
G 1 20/02/79
(CCMB)

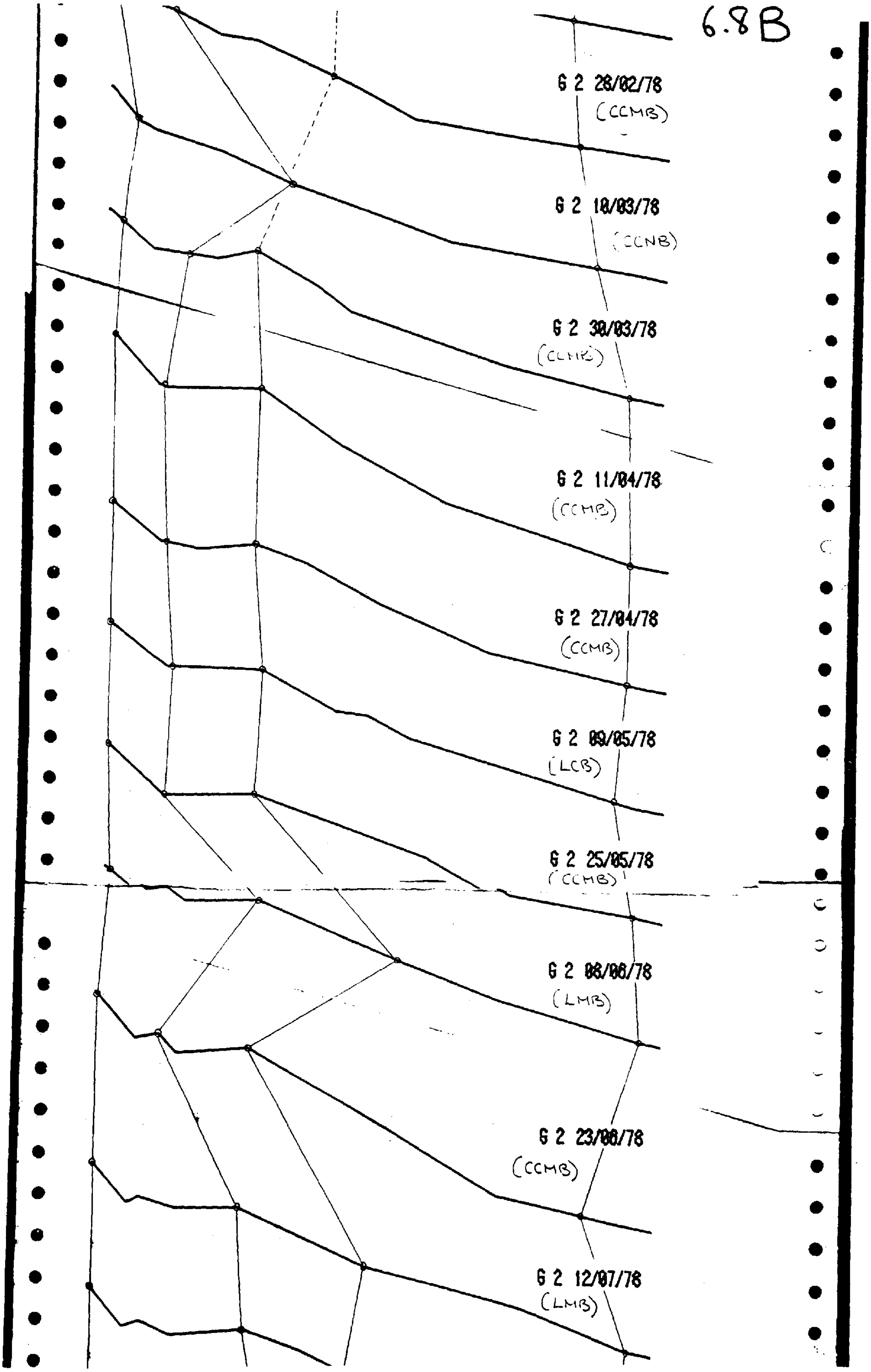
6.7D

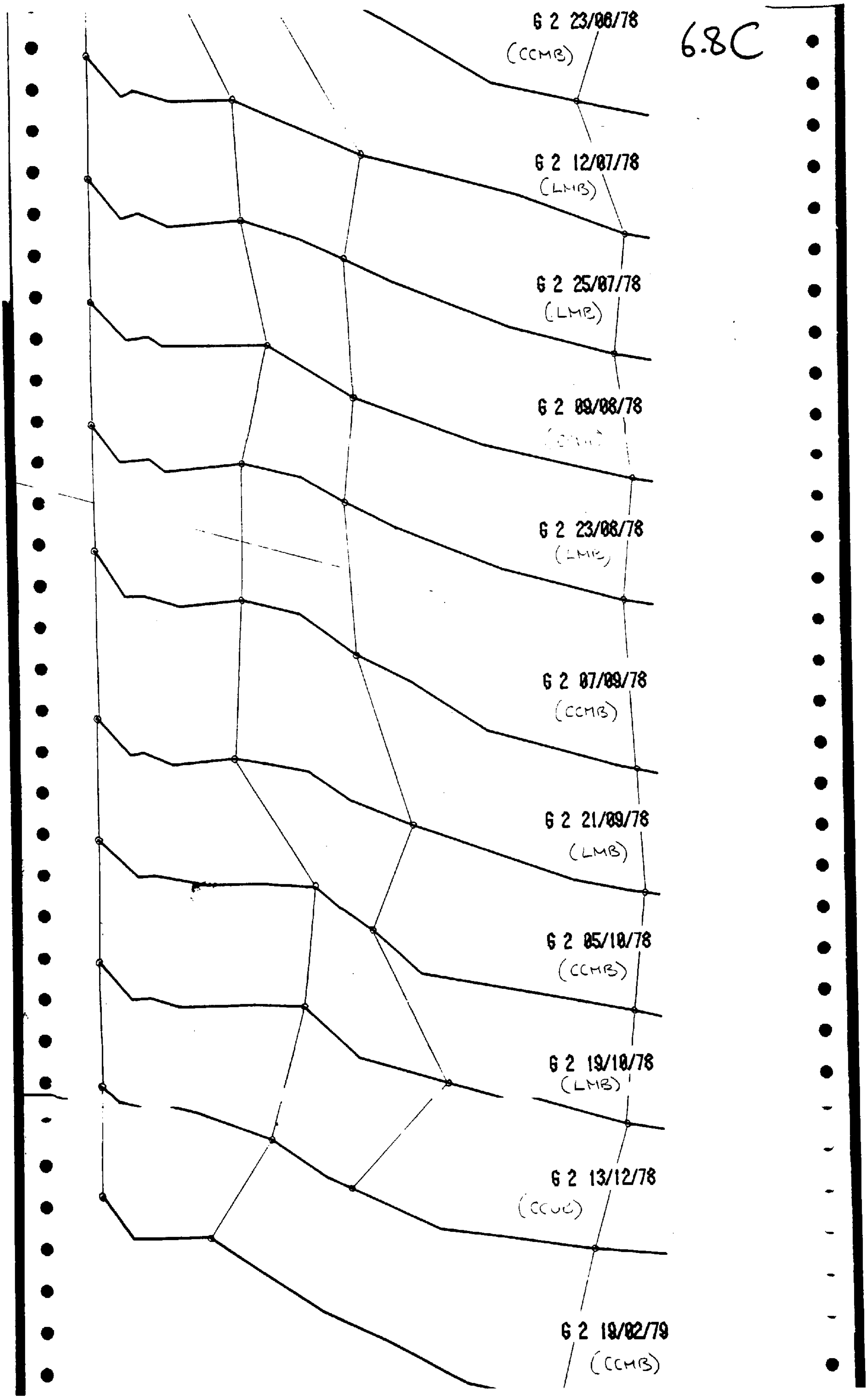

G 1 23/08/78
(CCCB)
G 1 07/09/78
(CCCB)
G 1 21/09/78
(CCCB)
G 1 05/10/78
(CCCB)
G 1 19/10/78
(CCCB)
G 1 13/12/78
(CCNB)
G 1 20/02/79
(CCMB)

6.8 A

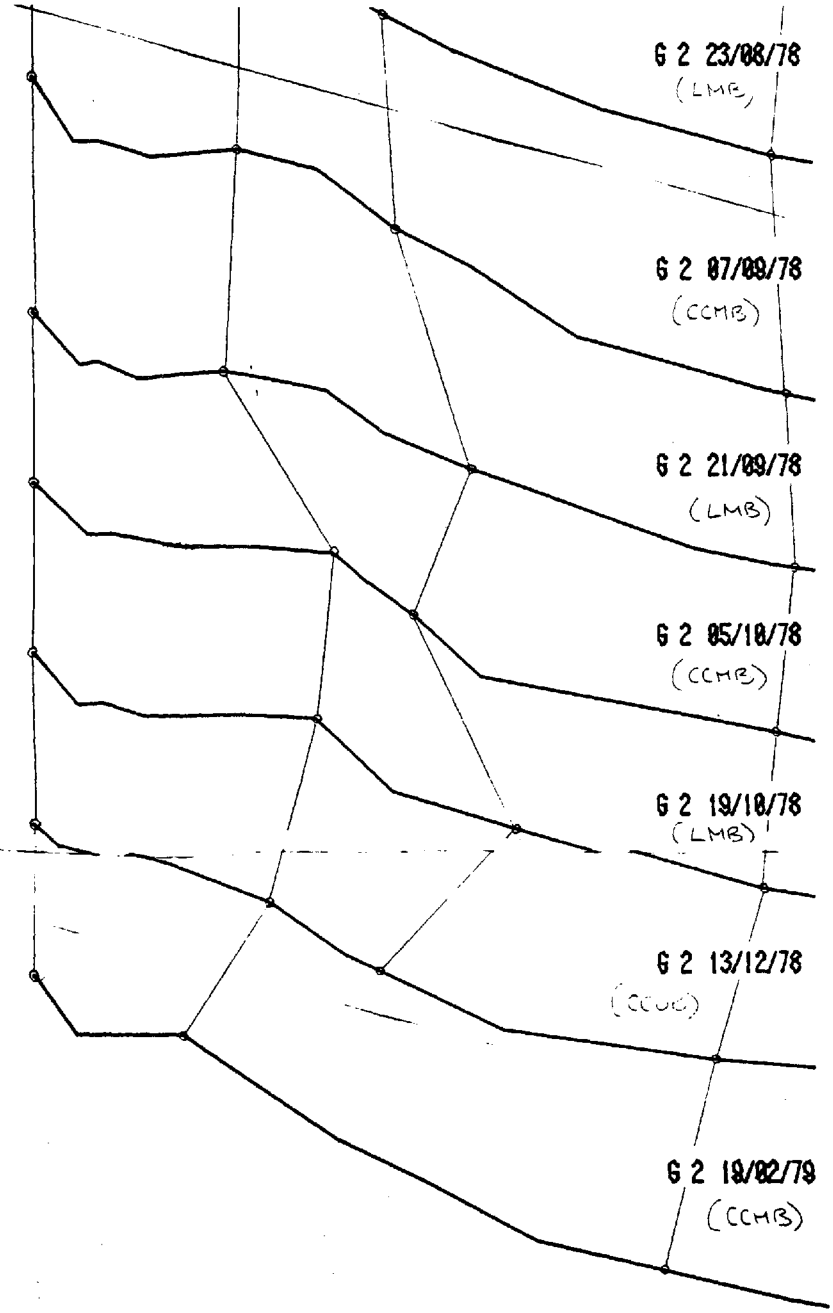

B
C1
D
C2
G 2 10/11/77
(CCNB)
G 2 24/11/77
(CCNB)
G 2 12/12/77
(CCNB)
G 2 27/12/77
(CCNB)
G 2 12/01/78
(CCNB)
G 2 25/01/78
(CCNB)
G 2 09/02/78
(CCNB)
G 2 28/02/78
(CCMB)
G 2 10/03/78
(CCNB)
G 2 30/03/78

6.8B

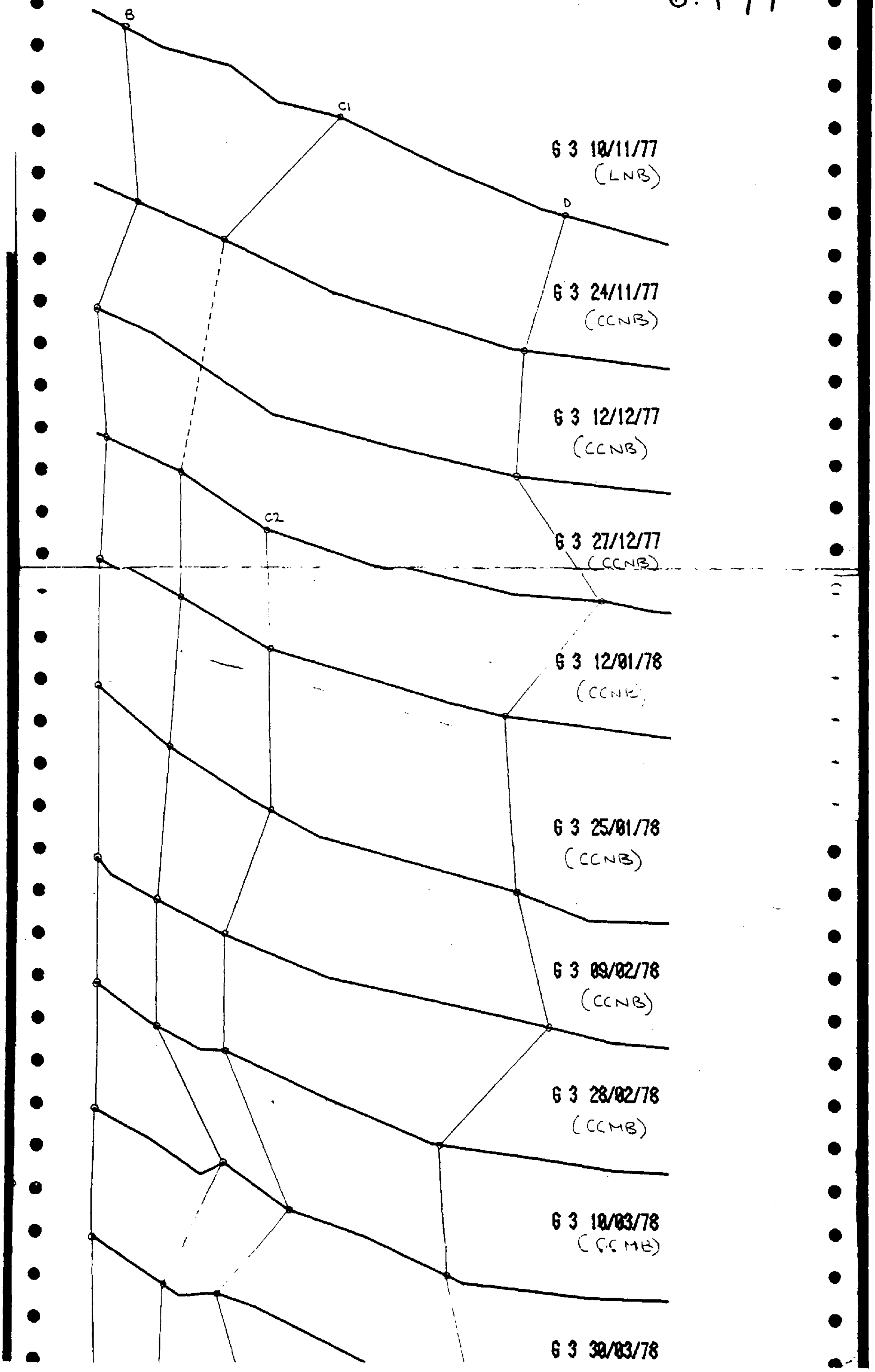

G 2 28/02/78
(CCMB)
G 2 10/03/78
(CCNB)
G 2 30/03/78
(CCMB)
G 2 11/04/78
(CCMB)
G 2 27/04/78
(CCMB)
G 2 09/05/78
(LCB)
G 2 25/05/78
(CCMB)
G 2 08/06/78
(LMB)
G 2 23/06/78
(CCMB)
G 2 12/07/78
(LMB)


6.8C
G 2 23/06/78
(CCMB)
G 2 12/07/78
(LMB)
G 2 25/07/78
(LMB)
G 2 09/08/78
G 2 23/08/78
(LMB)
G 2 07/09/78
(CCMB)
G 2 21/09/78
(LMB)
G 2 05/10/78
(CCMB)
G 2 19/10/78
(LMB)
G 2 13/12/78
(CCUC)
G 2 19/02/79
(CCMB)

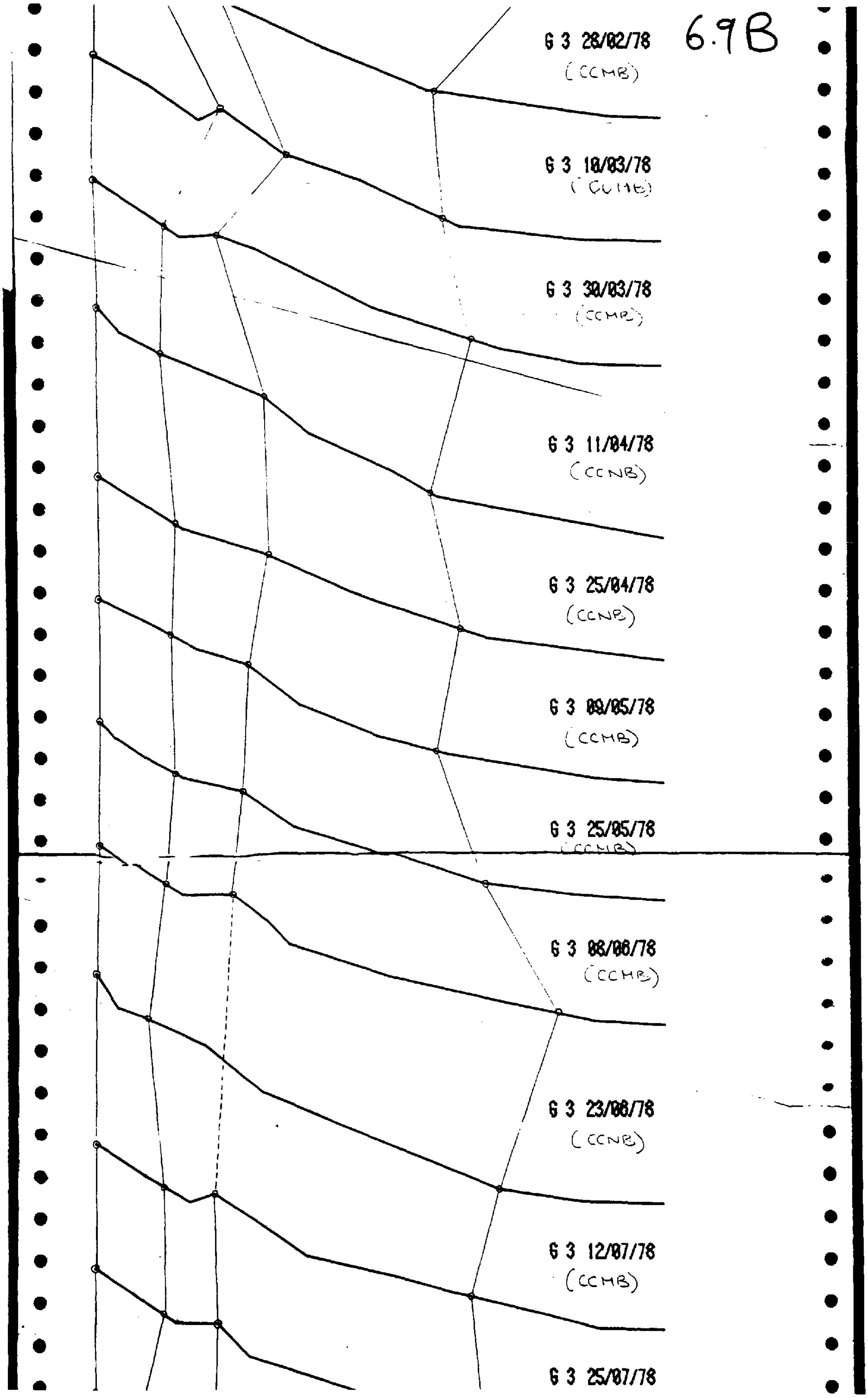
6.8D

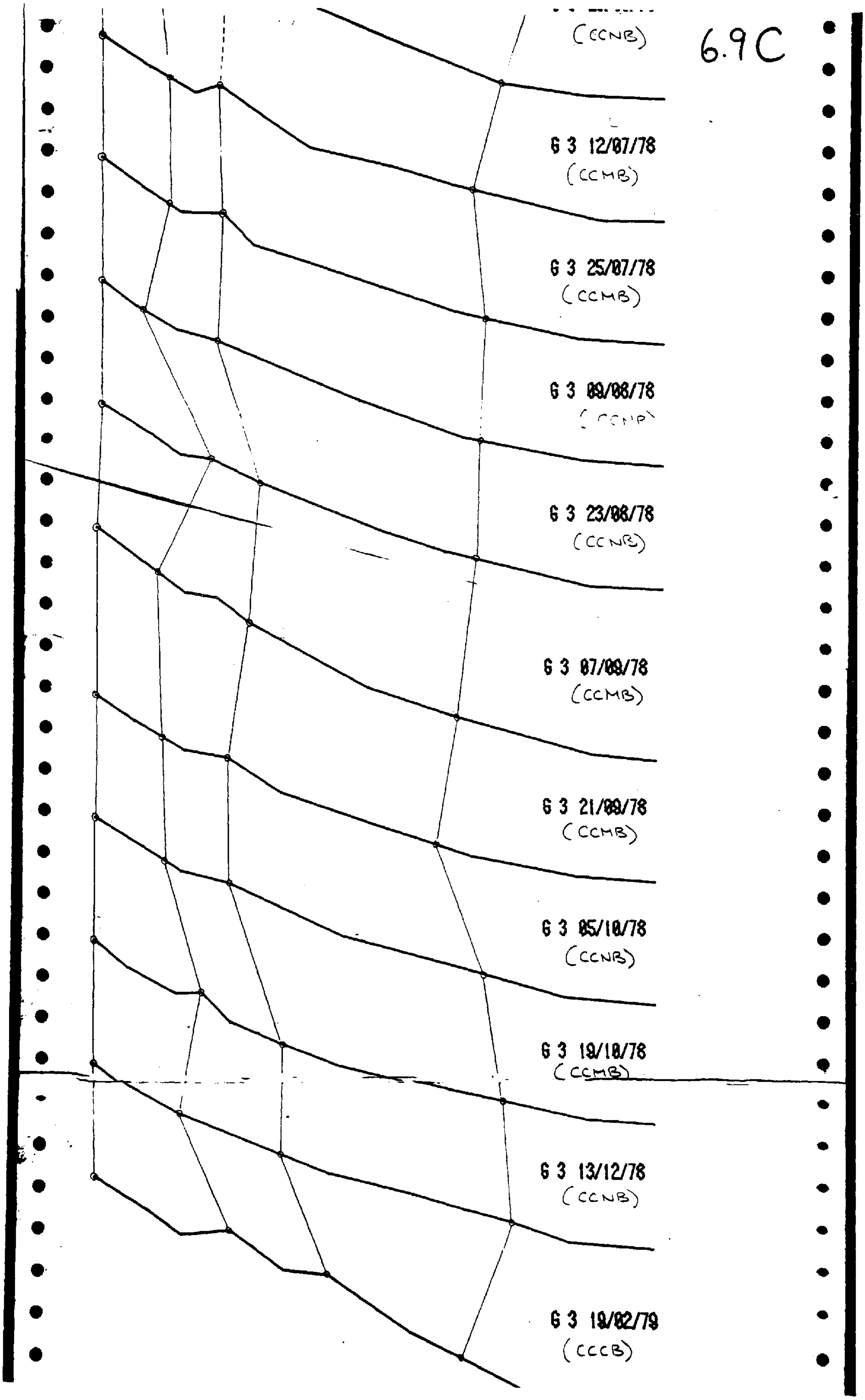

G 2 23/08/78
(LMB)
G 2 07/09/78
(CCMB)
G 2 21/09/78
(LMB)
G 2 05/10/78
(CCMB)
G 2 19/10/78
(LMB)
G 2 13/12/78
G 2 19/02/79
(CCMB)

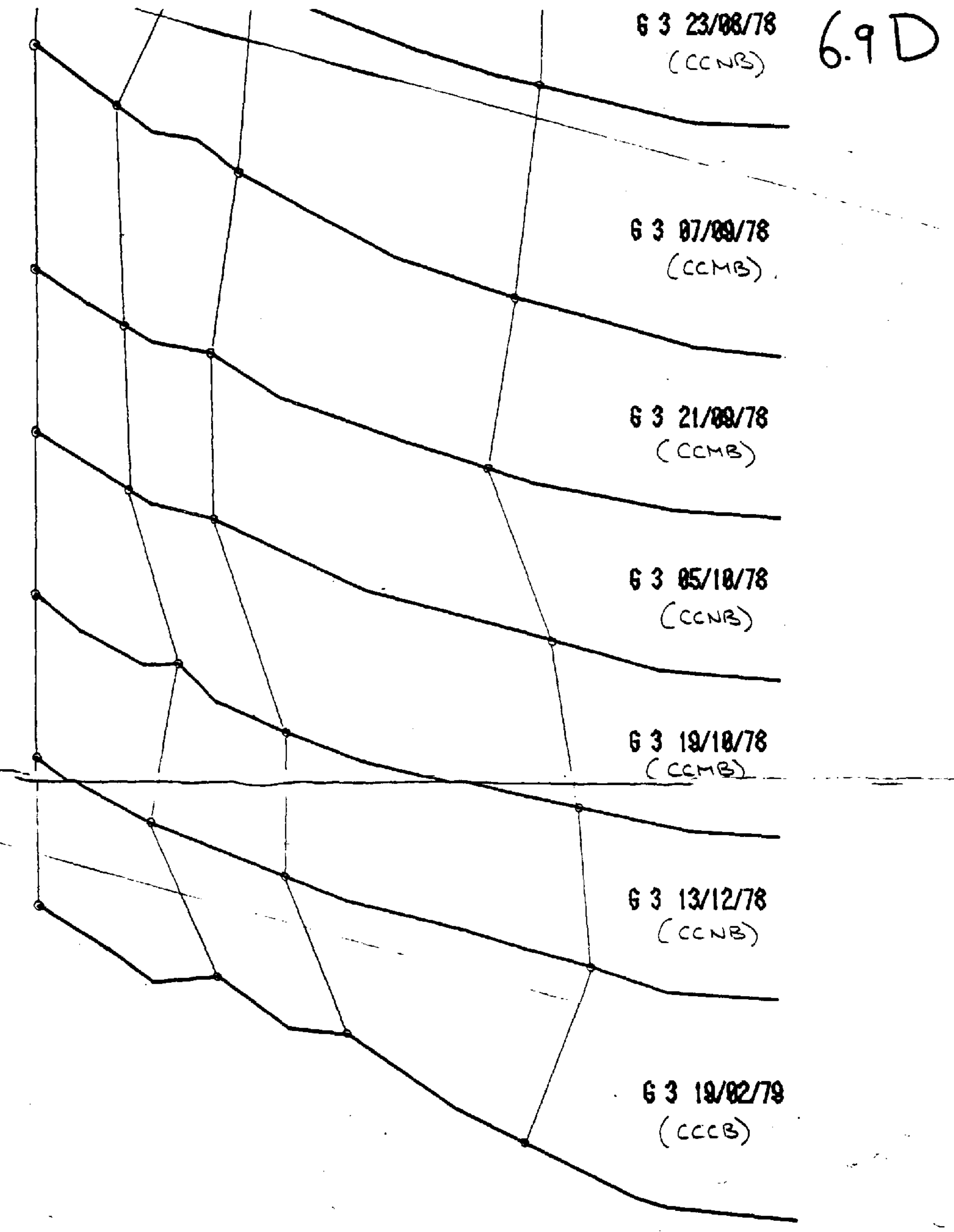
6.9 A

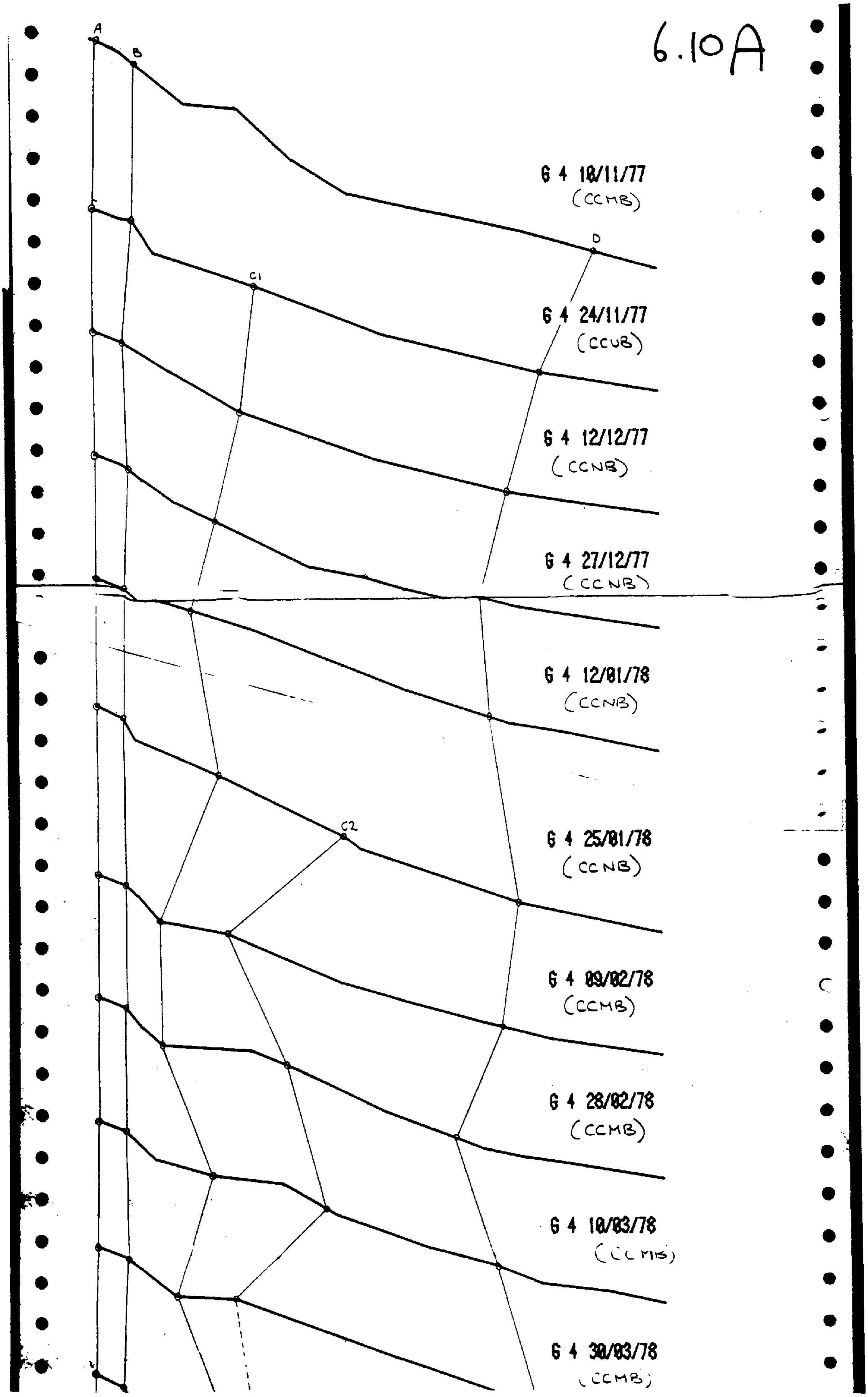

B
C1
G 3 10/11/77
(LNB)
D
G 3 24/11/77
(CCNB)
G 3 12/12/77
(CCNB)
C2
G 3 27/12/77
(CCNB)
G 3 12/01/78
G 3 25/01/78
(CCNB)
G 3 09/02/78
(CCNB)
G 3 28/02/78
(CCMB)
G 3 10/03/78
G 3 30/03/78

6.9B

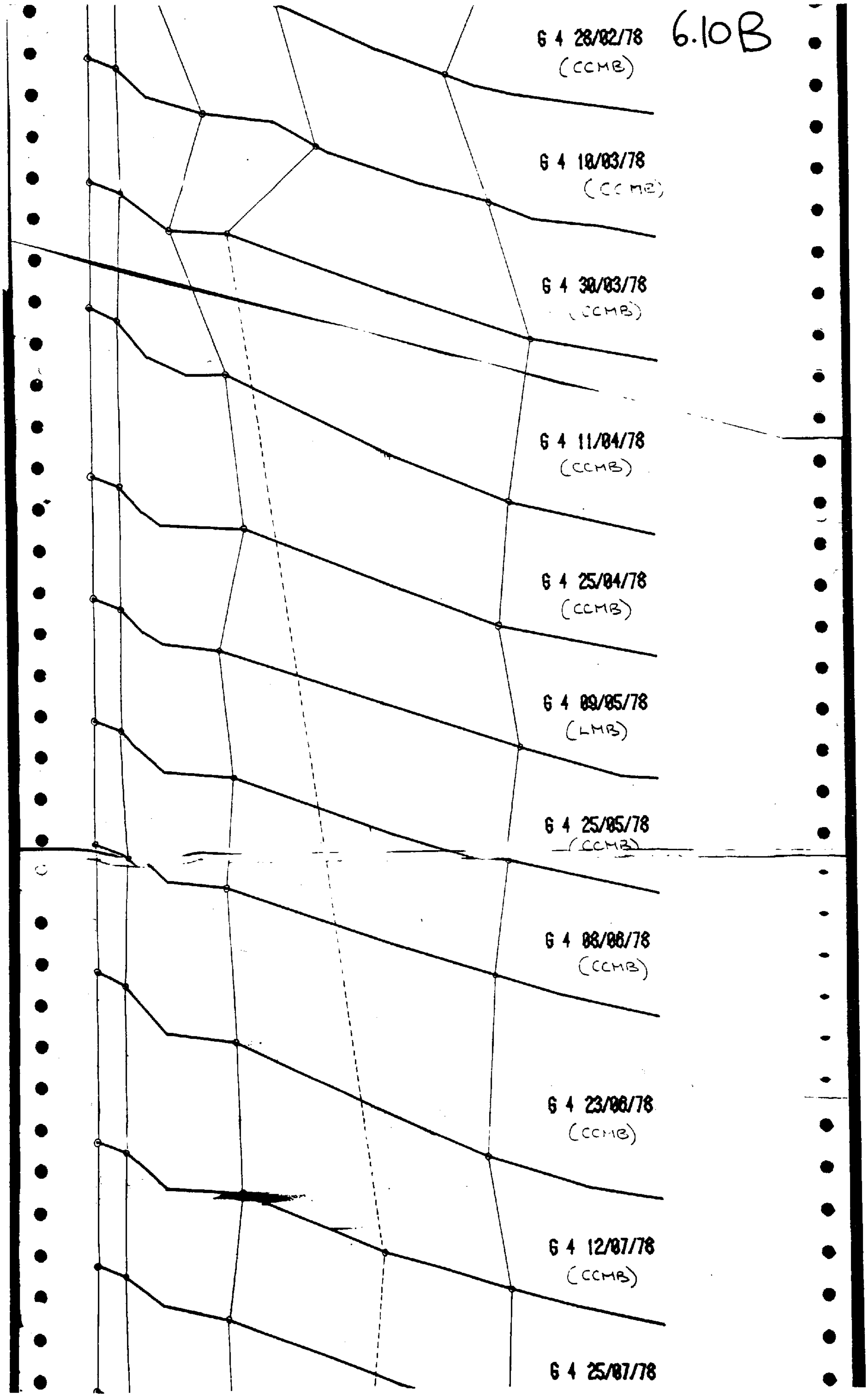

G 3 28/02/78
(CCMB)
G 3 10/03/78
(CCMB)
G 3 30/03/78
(CCMB)
G 3 11/04/78
(CCNB)
G 3 25/04/78
(CCNB)
G 3 09/05/78
(CCMB)
G 3 25/05/78
(CCMB)
G 3 08/06/78
(CCMB)
G 3 23/06/78
(CCNB)
G 3 12/07/78
(CCMB)
G 3 25/07/78


6.9C
(CCNB)
G 3 12/07/78
(CCMB)
G 3 25/07/78
(CCMB)
G 3 09/08/78
G 3 23/08/78
(CCNB)
G 3 07/09/78
(CCMB)
G 3 21/09/78
(CCMB)
G 3 05/10/78
(CCNB)
G 3 19/10/78
(CCMB)
G 3 13/12/78
(CCNB)
G 3 19/02/79
(CCCB)


6.9D
G 3 23/08/78
(CCNB)
G 3 07/09/78
(CCMB)
G 3 21/09/78
(CCMB)
G 3 05/10/78
(CCNB)
G 3 19/10/78
(CCMB)
G 3 13/12/78
(CCNB)
G 3 19/02/79
(CCCB)

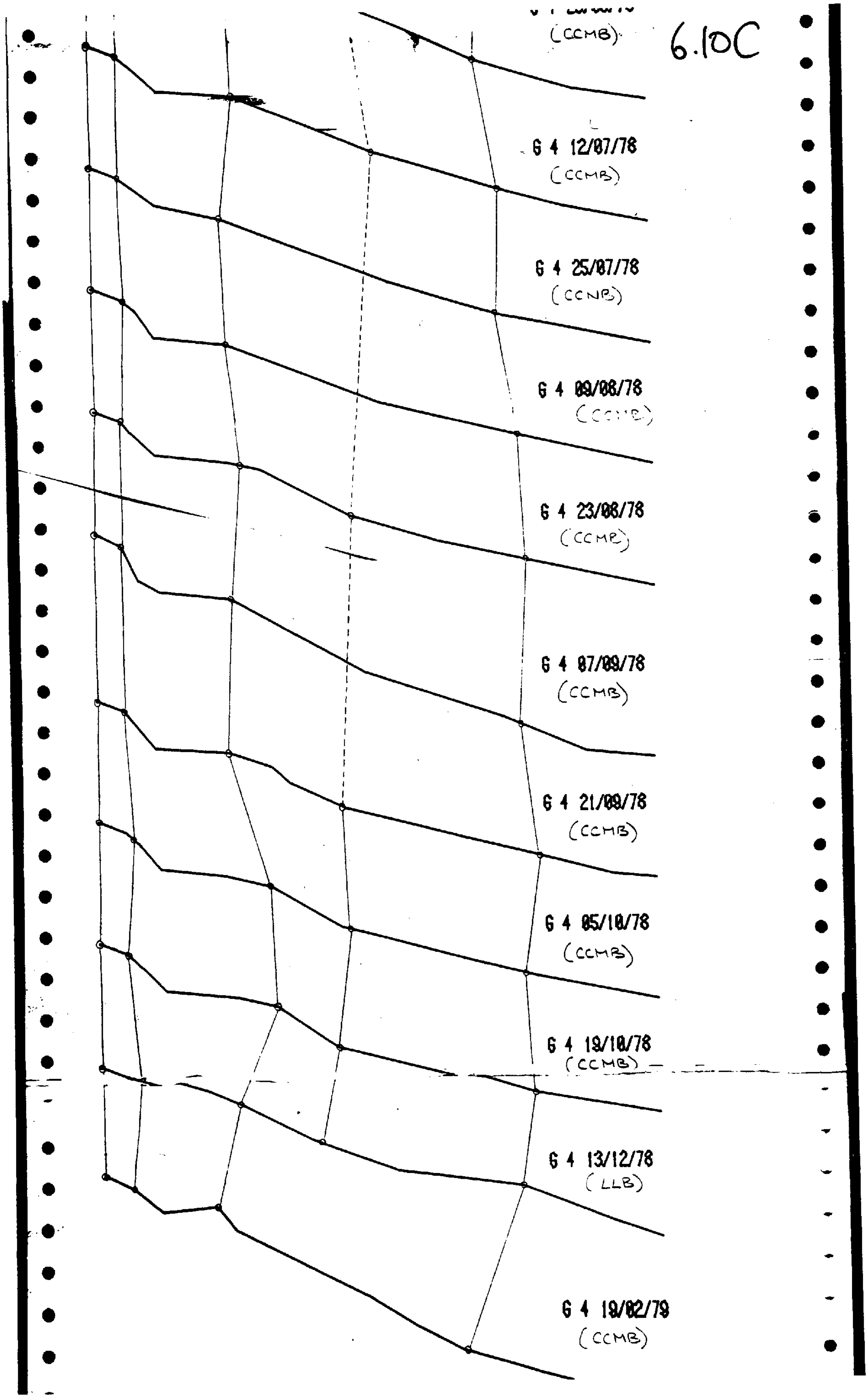

6.10A
A
B
C1
C2
D
G 4 10/11/77
(CCMB)
G 4 24/11/77
(CCUB)
G 4 12/12/77
(CCNB)
G 4 27/12/77
(CCNB)
G 4 12/01/78
(CCNB)
G 4 25/01/78
(CCNB)
G 4 09/02/78
(CCMB)
G 4 28/02/78
(CCMB)
G 4 10/03/78
(CCMB)
G 4 30/03/78
(CCMB)

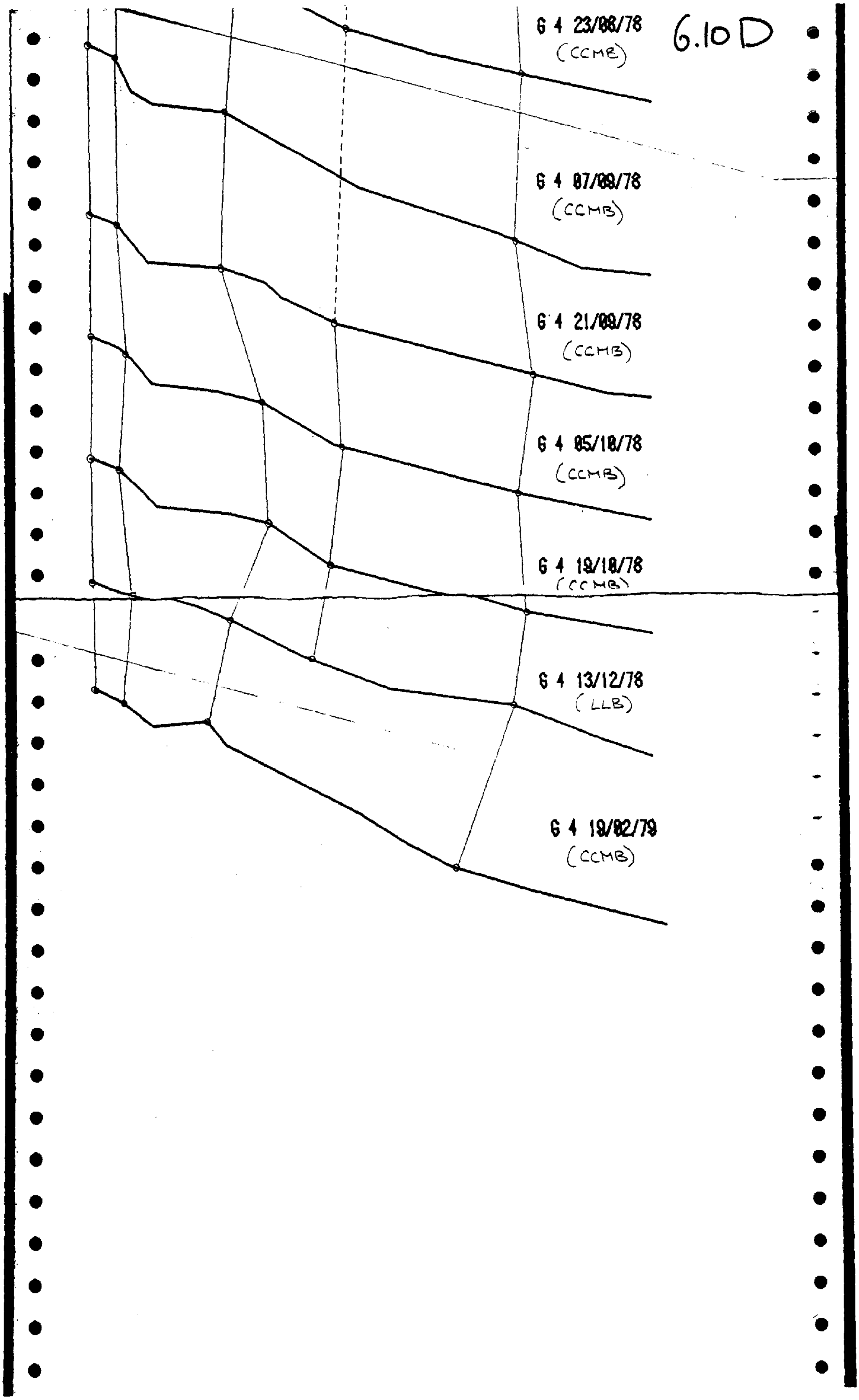
6.10B



G 4 28/02/78
(CCMB)
G 4 10/03/78
(CCMB)
G 4 30/03/78
(CCMB)
G 4 11/04/78
(CCMB)
G 4 25/04/78
(CCMB)
G 4 09/05/78
(LMB)
G 4 25/05/78
(CCMB)
G 4 08/06/78
(CCMB)
G 4 23/06/78
(CCMB)
G 4 12/07/78
(CCMB)
G 4 25/07/78

6.10C

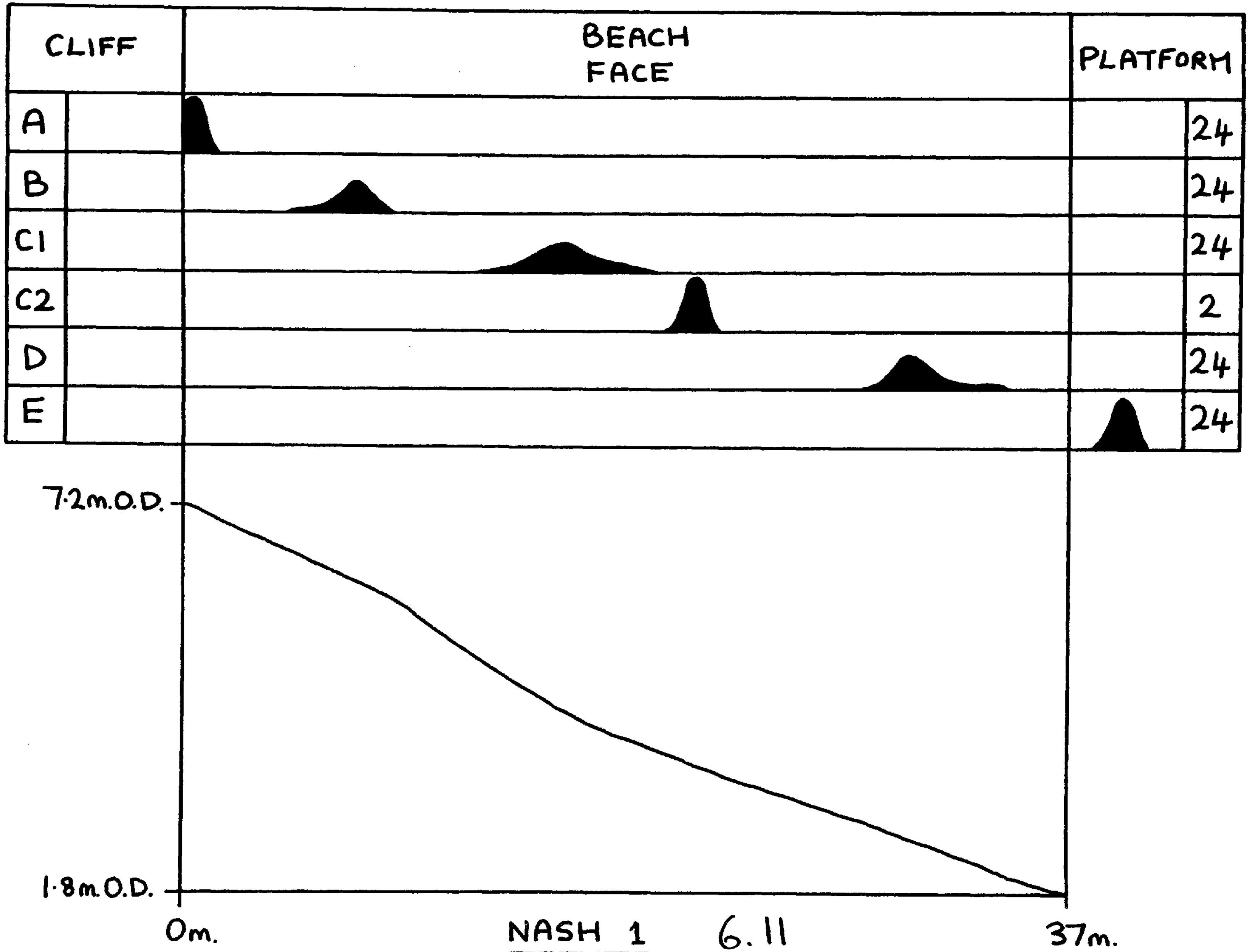

(CCMB)
G 4 12/07/78
(CCMB)
G 4 25/07/78
(CCNB)
G 4 09/08/78
G 4 23/08/78
(CCMB)
G 4 07/09/78
(CCMB)
G 4 21/09/78
(CCMB)
G 4 05/10/78
(CCMB)
G 4 19/10/78
(CCMB)
G 4 13/12/78
(LLB)
G 4 19/02/79
(CCMB)


G 4 23/08/78
(CCMB)
6.10D
G 4 07/09/78
(CCMB)
G 4 21/09/78
(CCMB)
G 4 05/10/78
(CCMB)
G 4 19/10/78
(CCMB)
G 4 13/12/78
(LLB)
G 4 19/02/79
(CCMB)

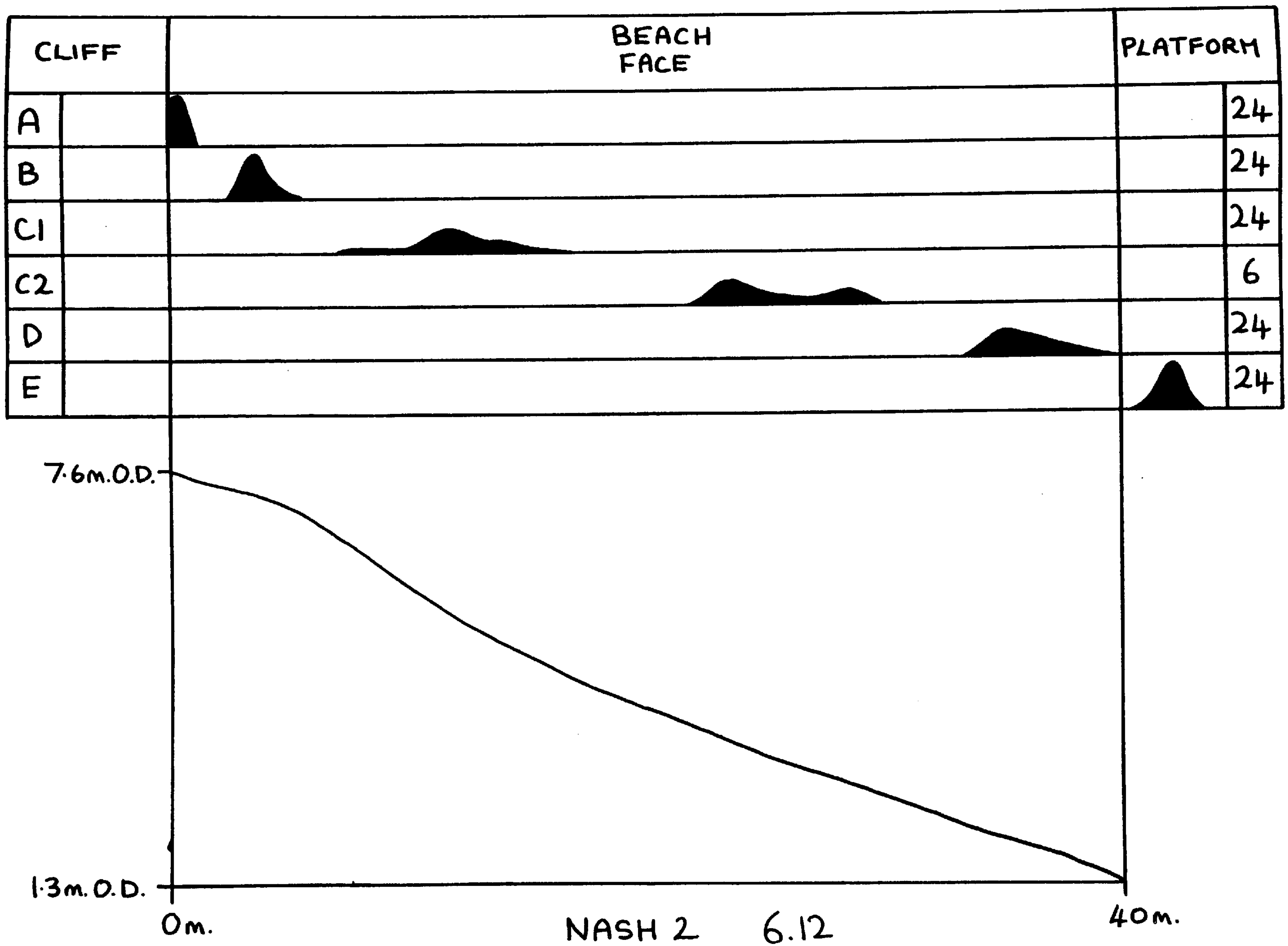
FIGURES 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18

THE DISTRIBUTION OF SAMPLING POINTS

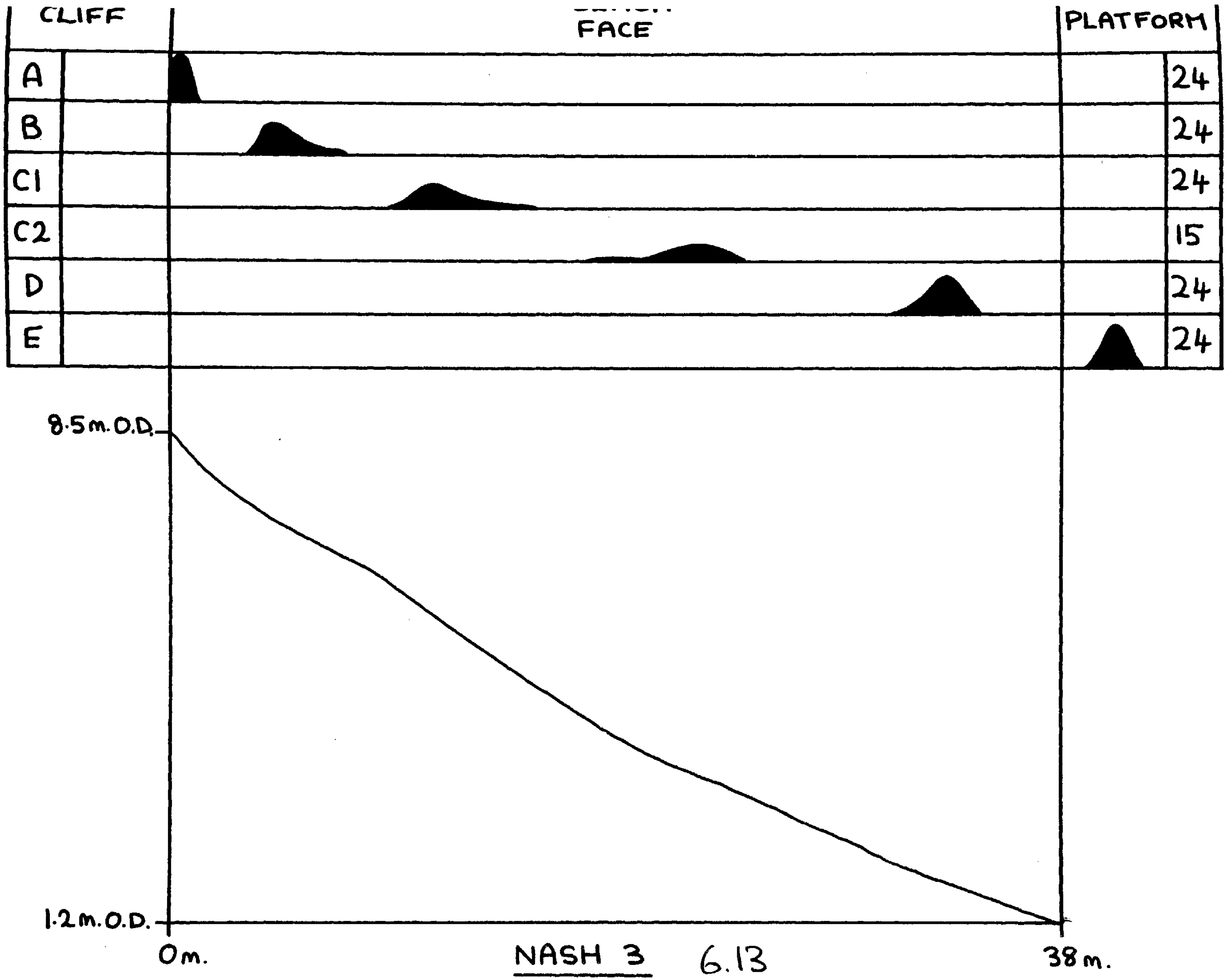
Sampling positions are indicated on the lefthand sides of these diagrams. Each frequency graph represents the distribution of samples for each position. The number of samples gathered from each position is indicated on the righthand side.


CLIFF
BEACH FACE
PLATFORM
A
B
C1
C2
D
E
24
24
24
2
24
24
7·2m.O.D.
1·8m.O.D.
0m.
37m.

NASH 1 6.11

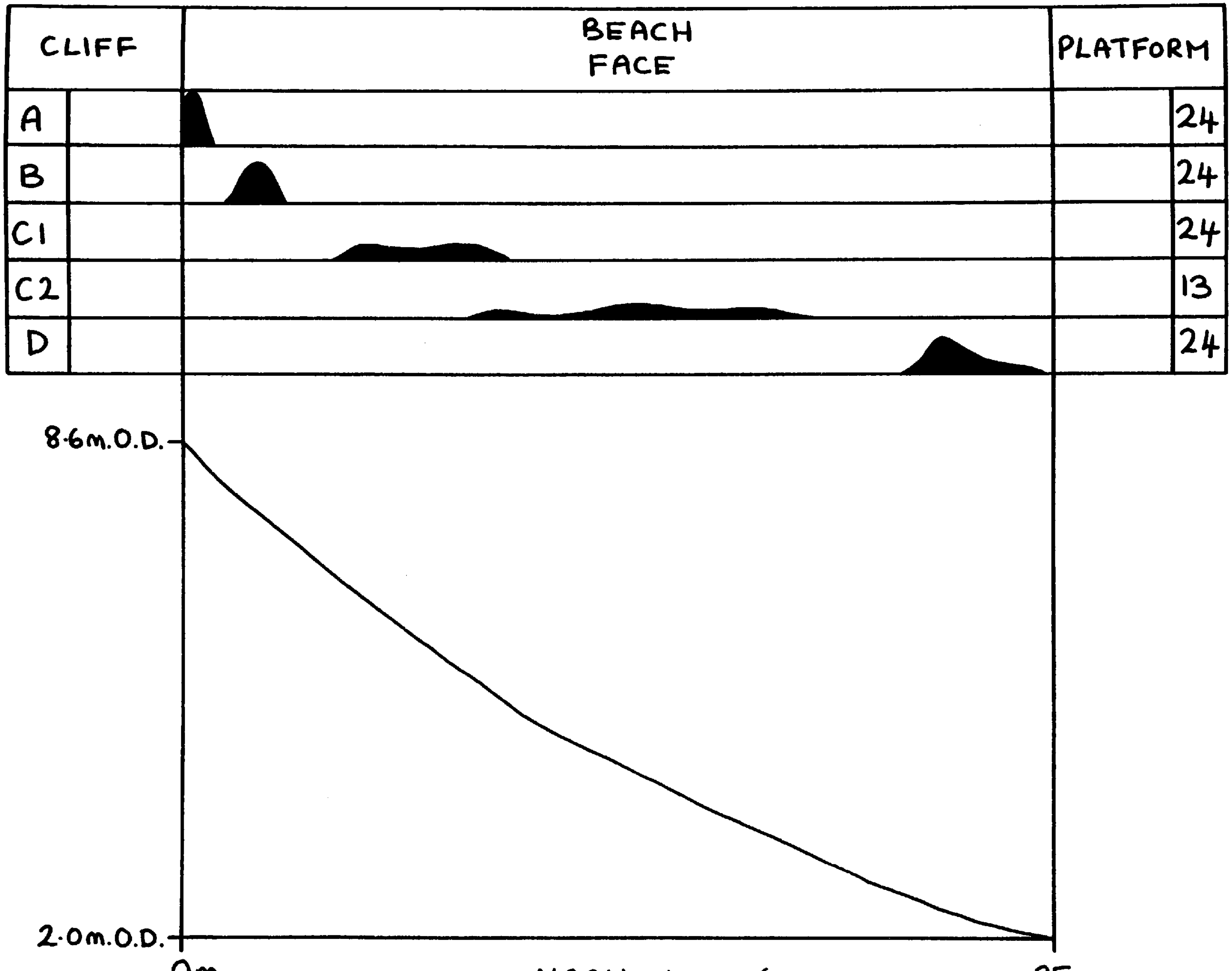

CLIFF
BEACH FACE
PLATFORM
A
B
C1
C2
D
E
24
24
24
6
24
24
7·6m.O.D.
1·3m.O.D.
0m.
40m.

NASH 2 6.12

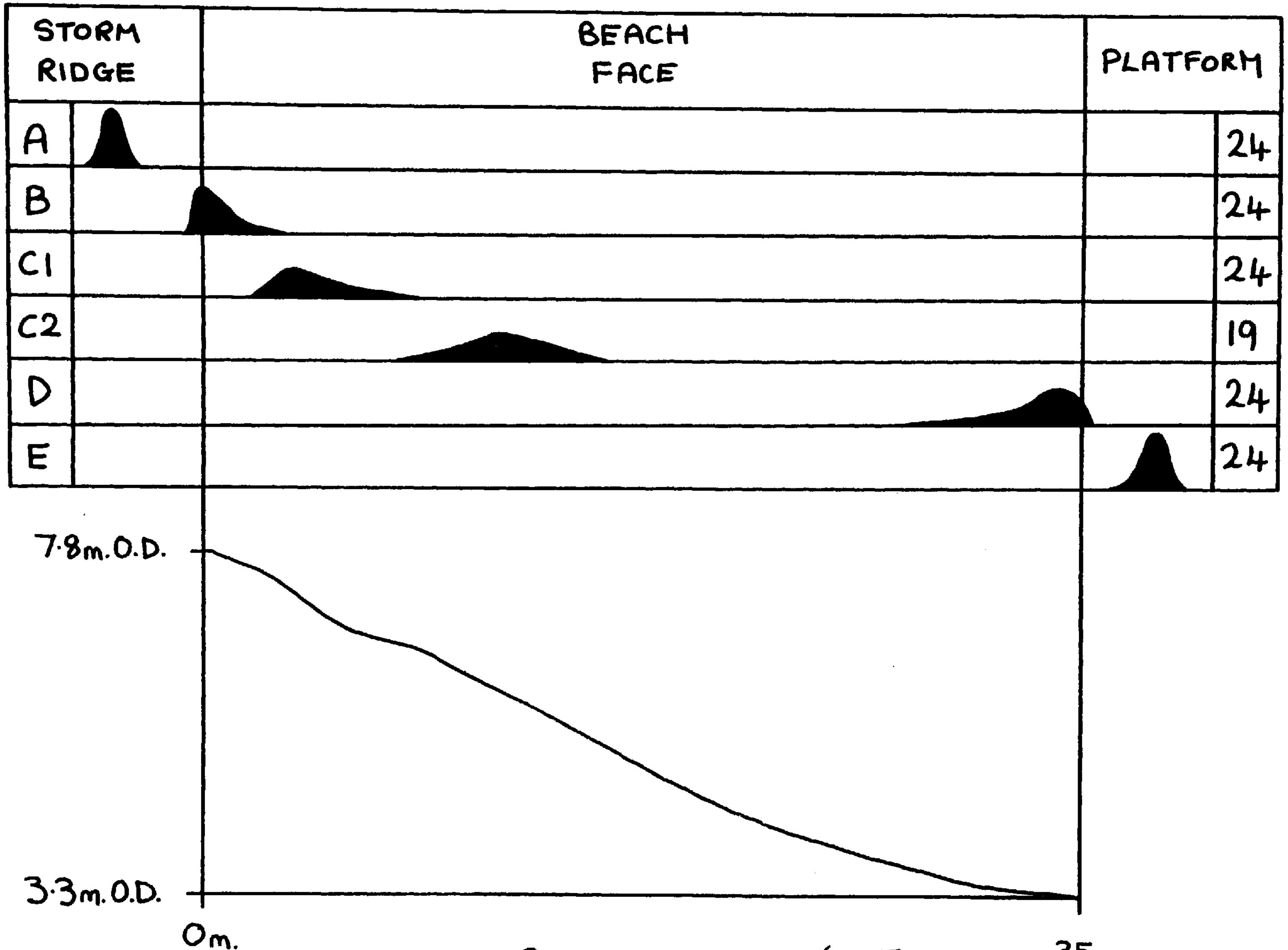


CLIFF
FACE
PLATFORM
A
B
C1
C2
D
E
24
24
24
15
24
24
8·5m.O.D.
1·2m.O.D.
0m.
38m.

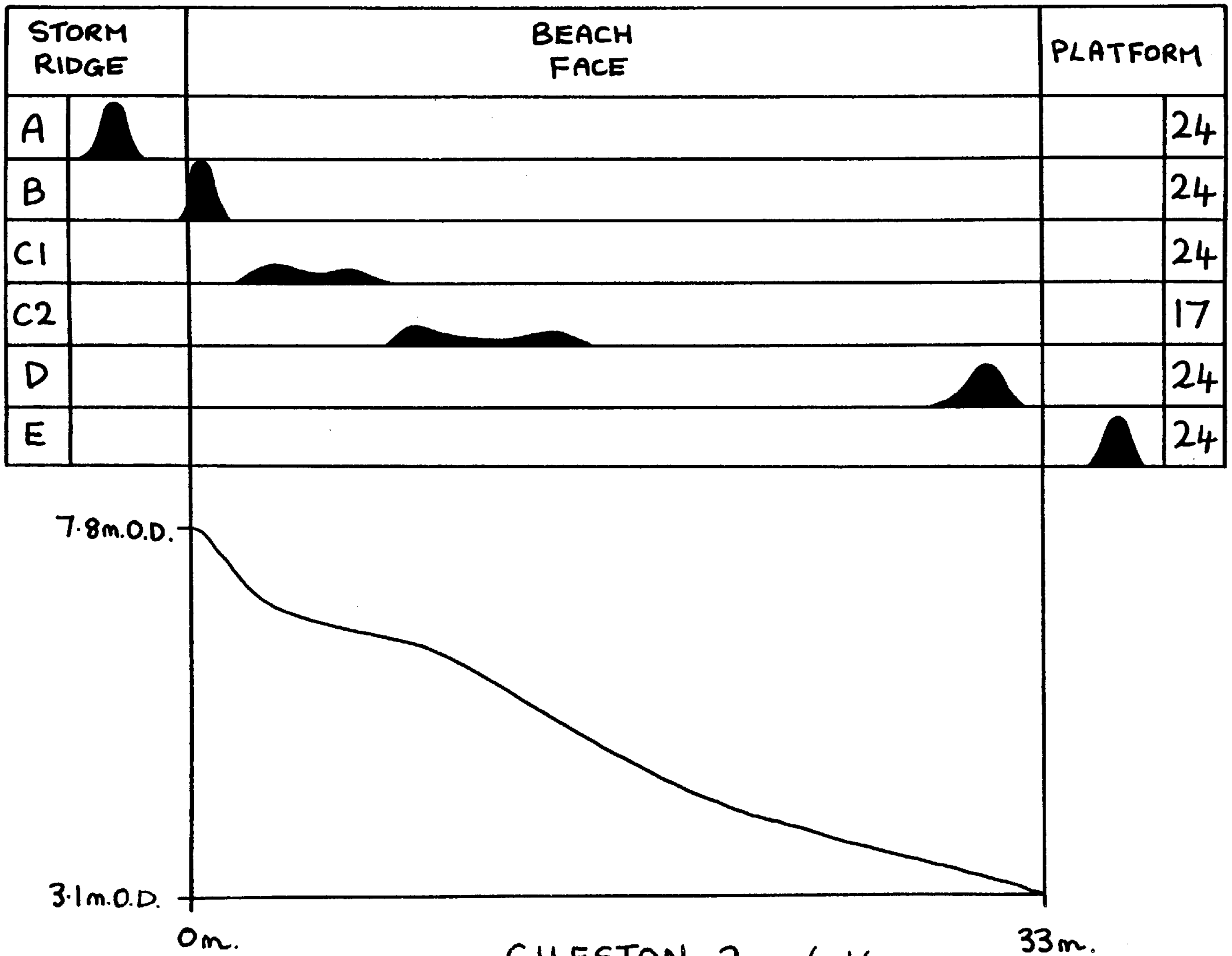
NASH 3 6.13


CLIFF
BEACH FACE
PLATFORM
A
B
C1
C2
D
24
24
24
13
24
8·6m.O.D.
2·0m.O.D.
0m.
35m.

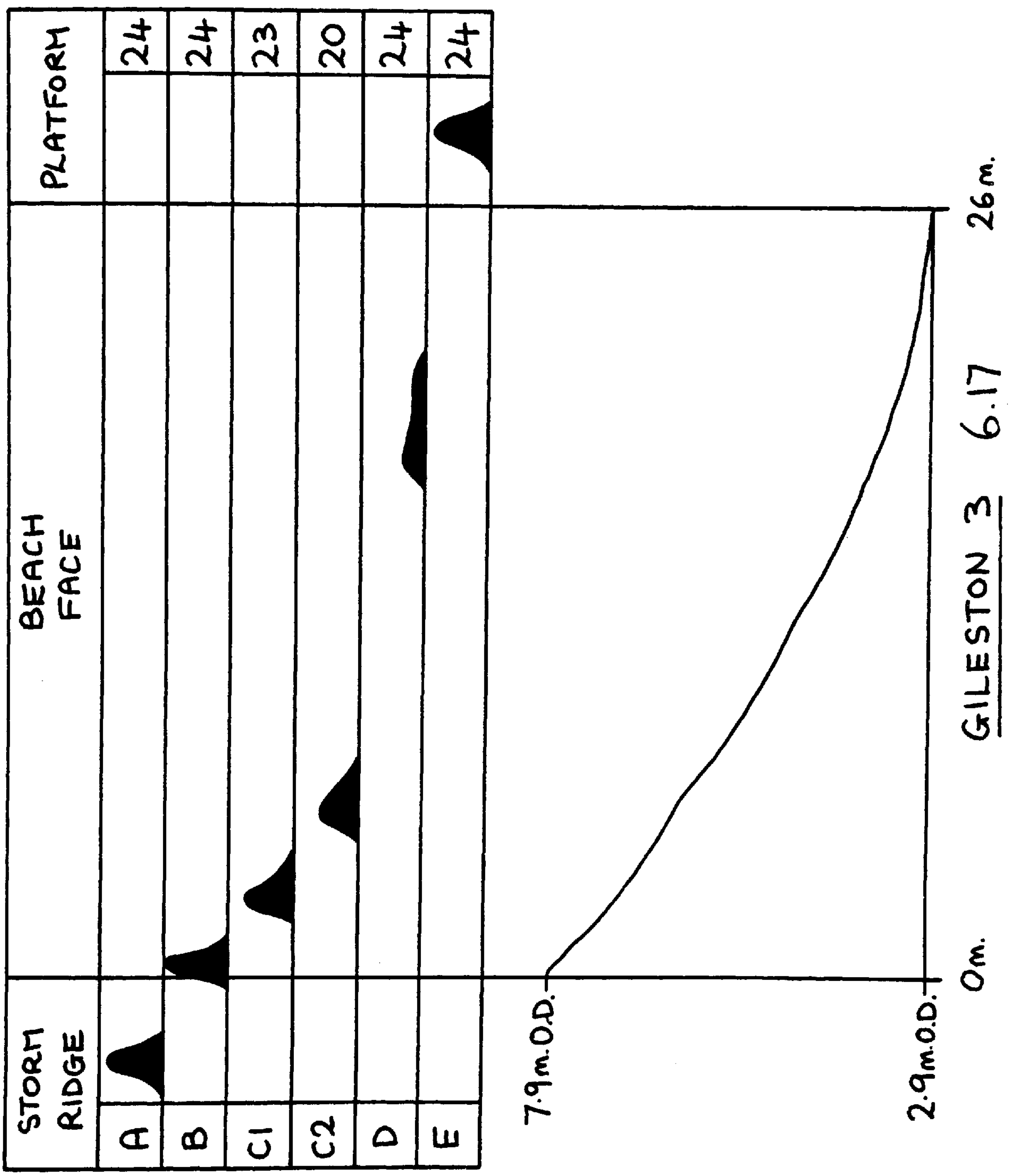
NASH 4 6.14

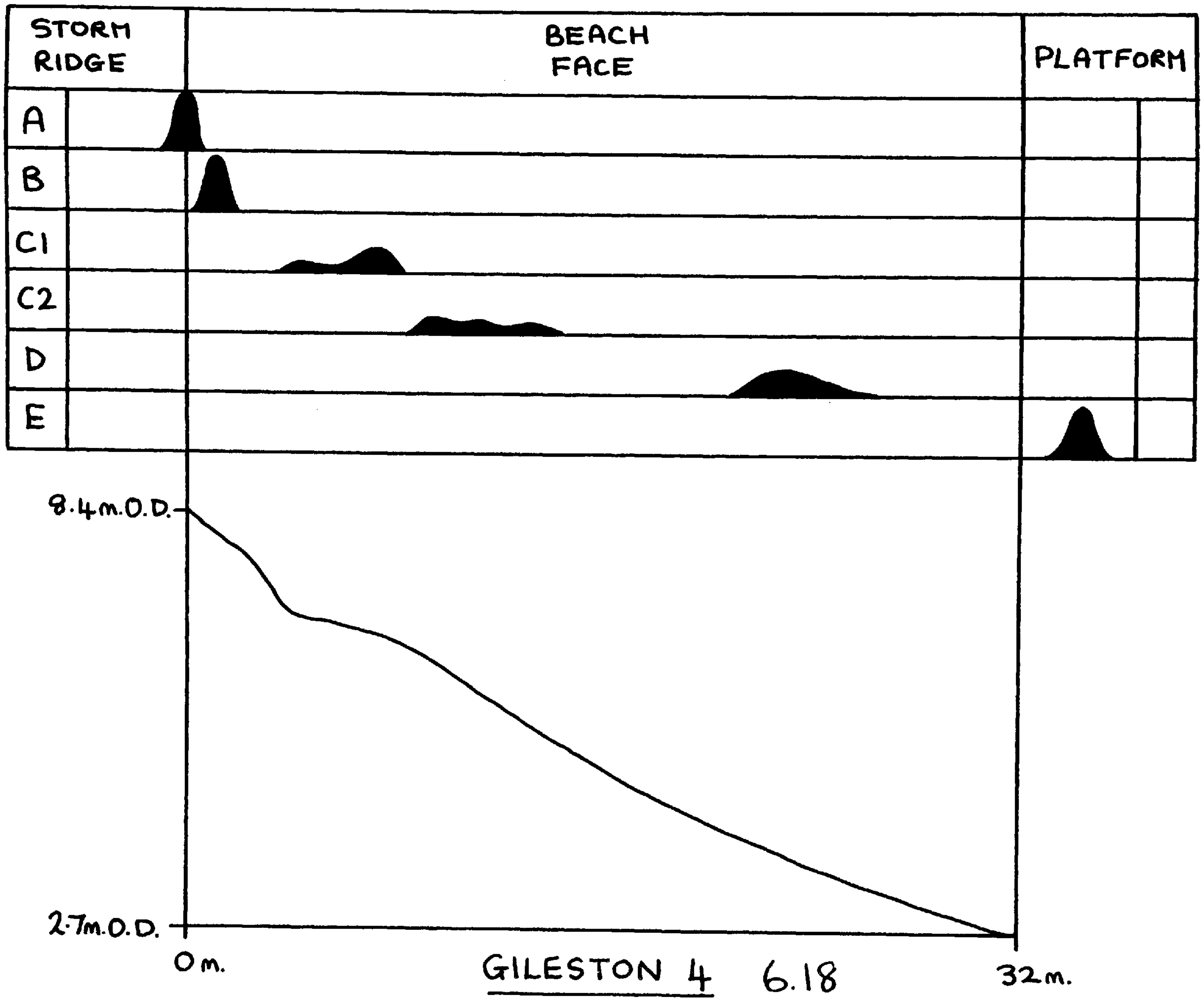


GILESTON 1. 6.15



GILESTON 2 6.16


STORM RIDGE
BEACH FACE
PLATFORM
A
B
C1
C2
D
E
24
24
23
20
24
24
7.9m.O.D.
2.9m.O.D.
0m.
26m.
GILESTON 3
6.17


STORM RIDGE
BEACH FACE
PLATFORM
A
B
C1
C2
D
E
8.4m.O.D.
2.7m.O.D.
0m.
32m.
GILESTON 4 6.18

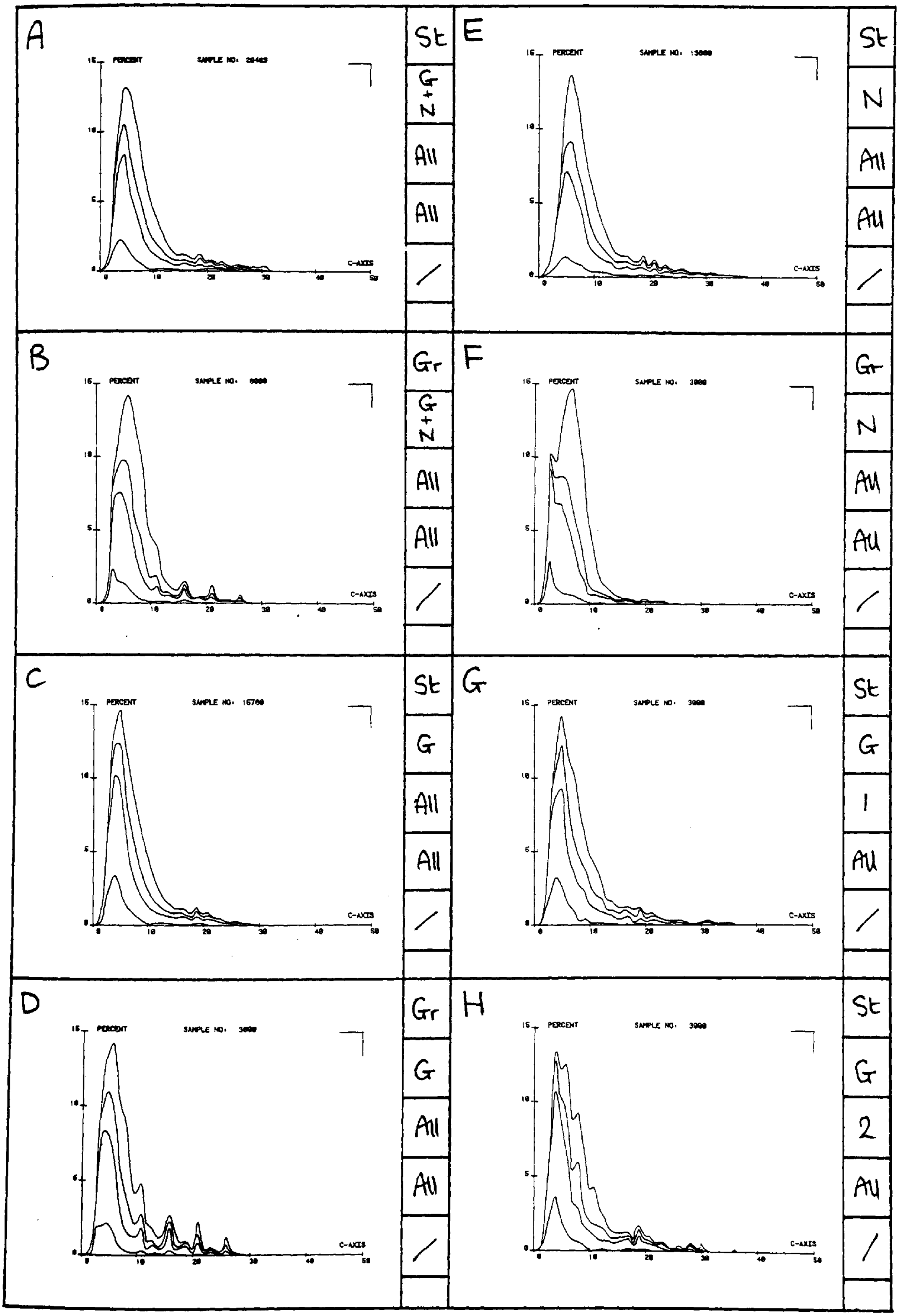
FIGURES 6.19AA–QB SHAPE-FREQUENCY CURVES

These have been constructed according to the procedure outlined in section 6.2.3 of the text. The following information is contained on each diagram: The sample size is indicated at the top. The size parameter chosen to represent particle size (in cm) is indicated on the horizontal axis. The vertical axis is marked in percent. The area between the horizontal axis and the first curve represents the proportion of blades under the size-frequency curve for the whole sample. The area between the first curve and the second represents the proportion of discs. That between the second and third curves represents the proportion of rods, while that between the third and fourth curves represents the proportion of spheres. REMEMBER: This is in alphabetic order upwards to ease identification.

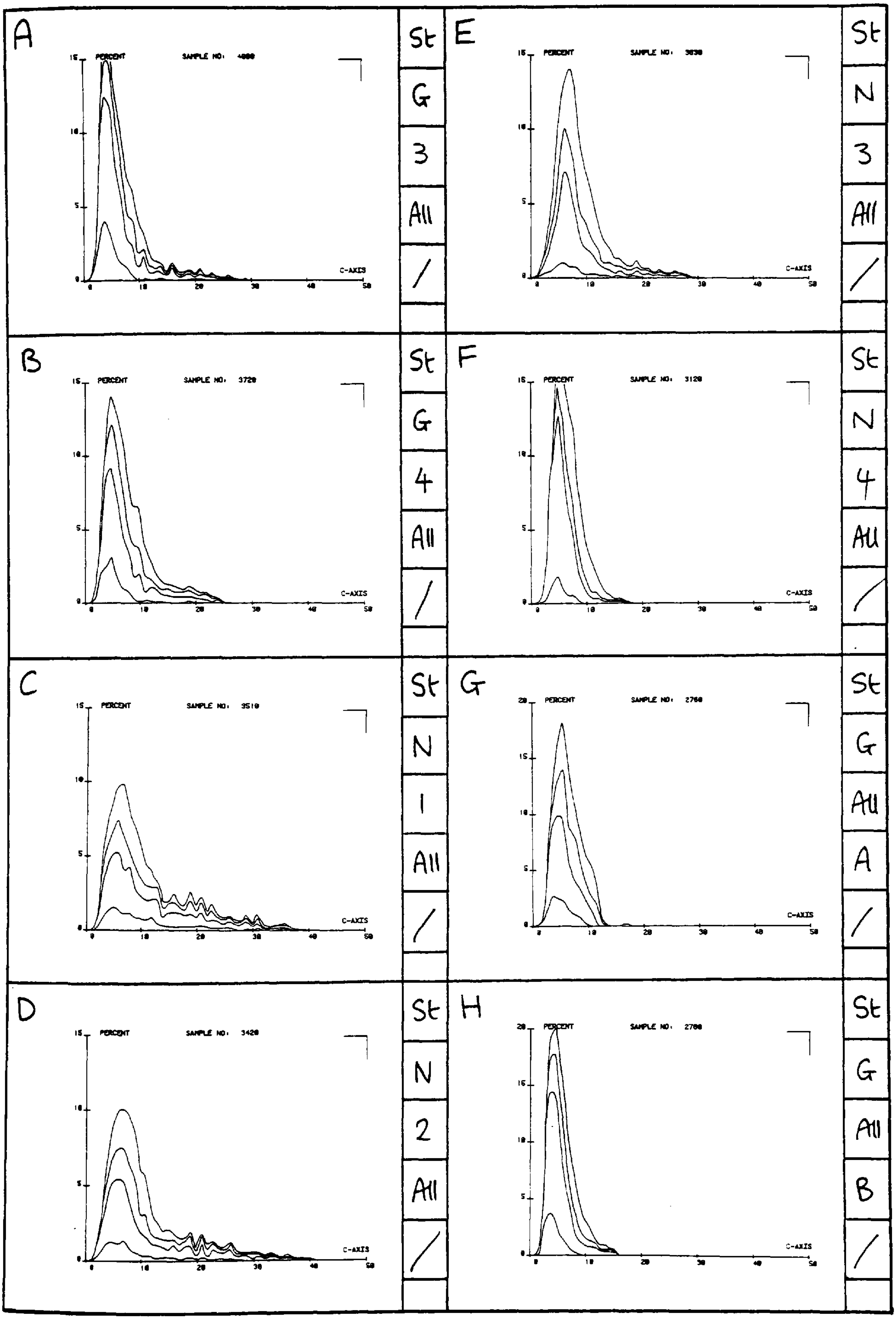
The sample itself can be identified from the code used on the righthand side of each diagram: St or Gr indicates standard or grid sampling, respectively. G or N signifies the beach. The next box down indicates the cross-section number from which the samples were taken. That below indicates the sampling point (Fig: 3.6) from which the samples were taken. The last box indicates (where appropriate) from what morphological position the samples were taken. For an explanation of 1. the abreviations used see section 6.8.1, 2. the types of line used see Fig: 6.24.

N.B. Data from which these diagrams were constructed is given in Appendix 6.1.

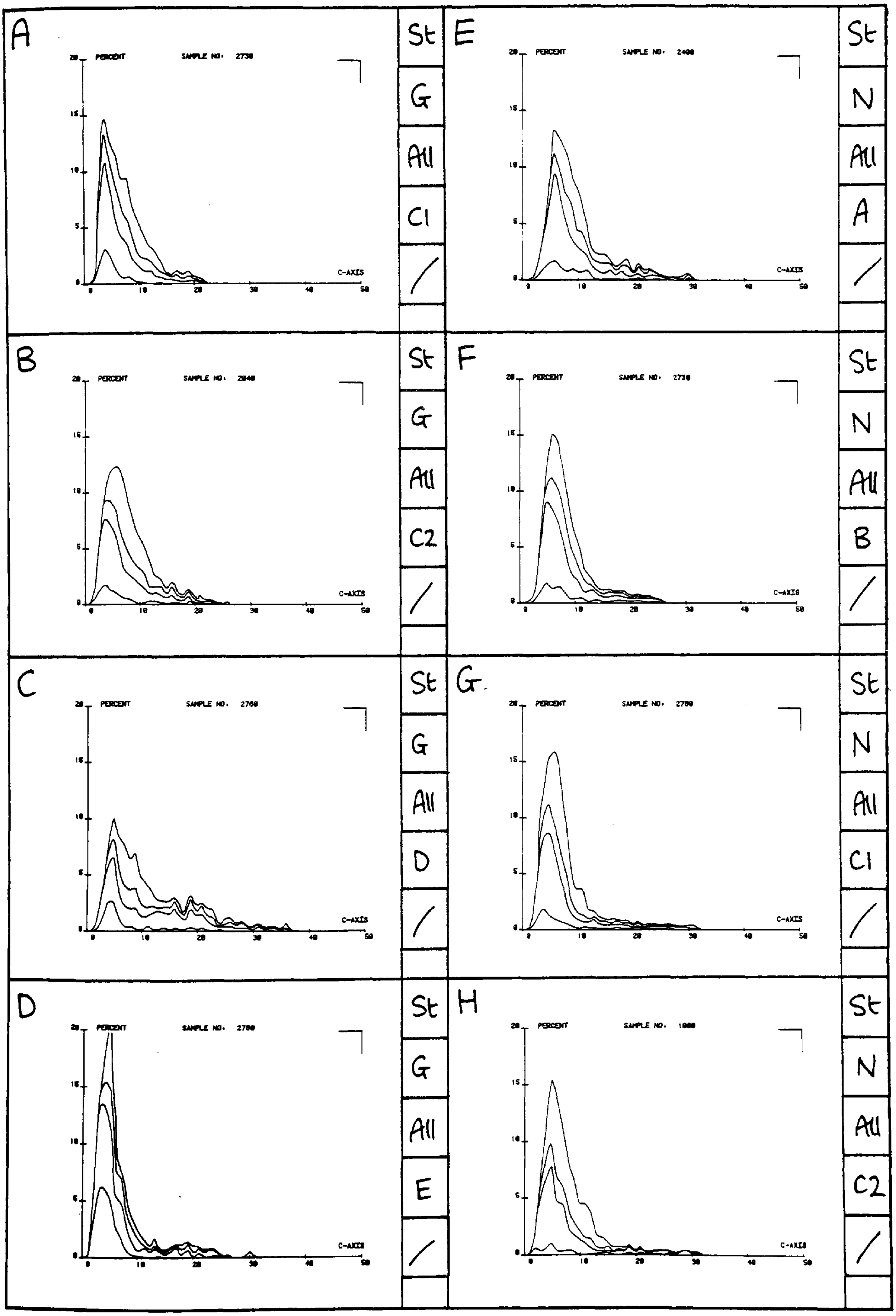
Shape - frequency 6.19A



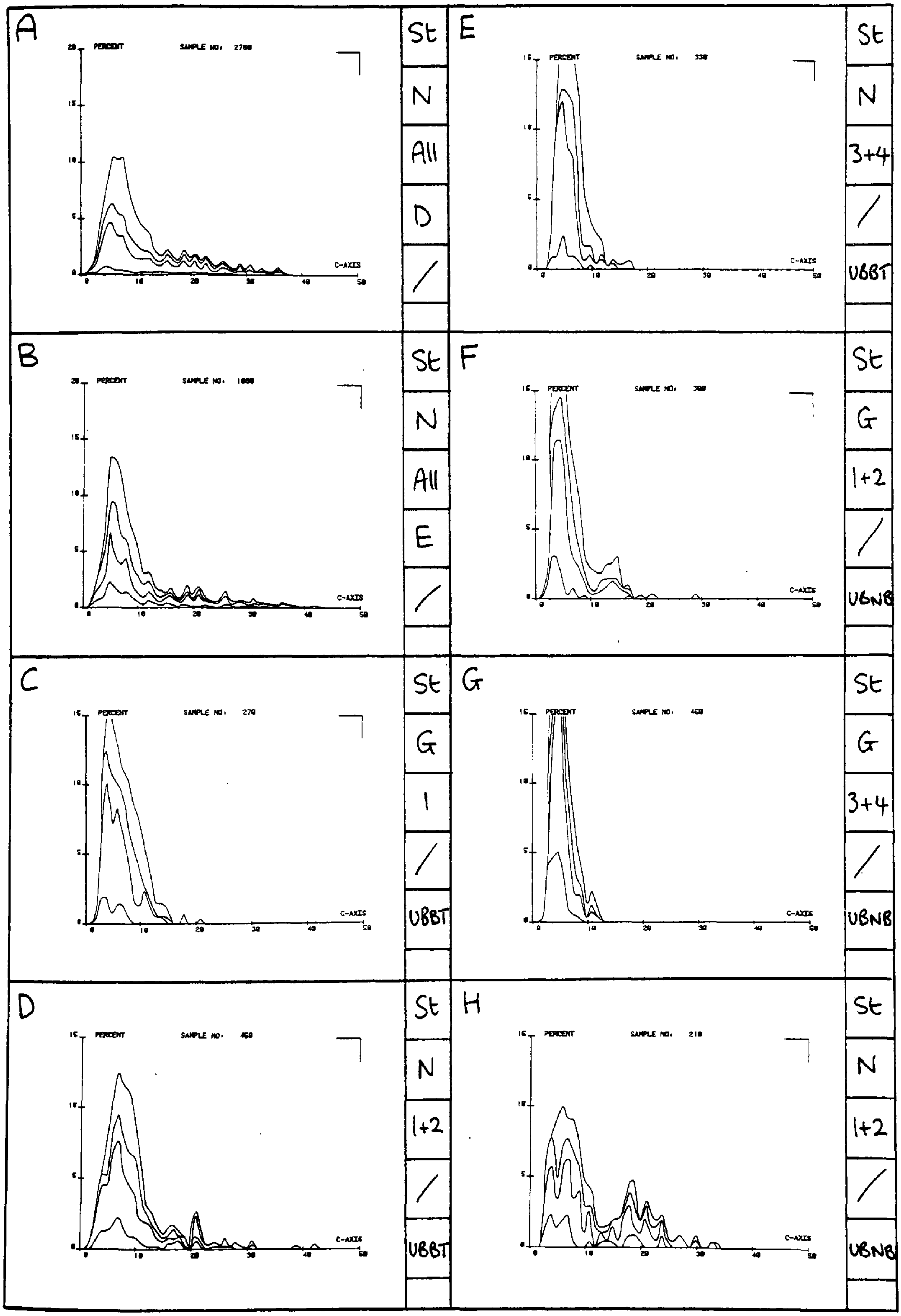
Shape - frequency 6.19B



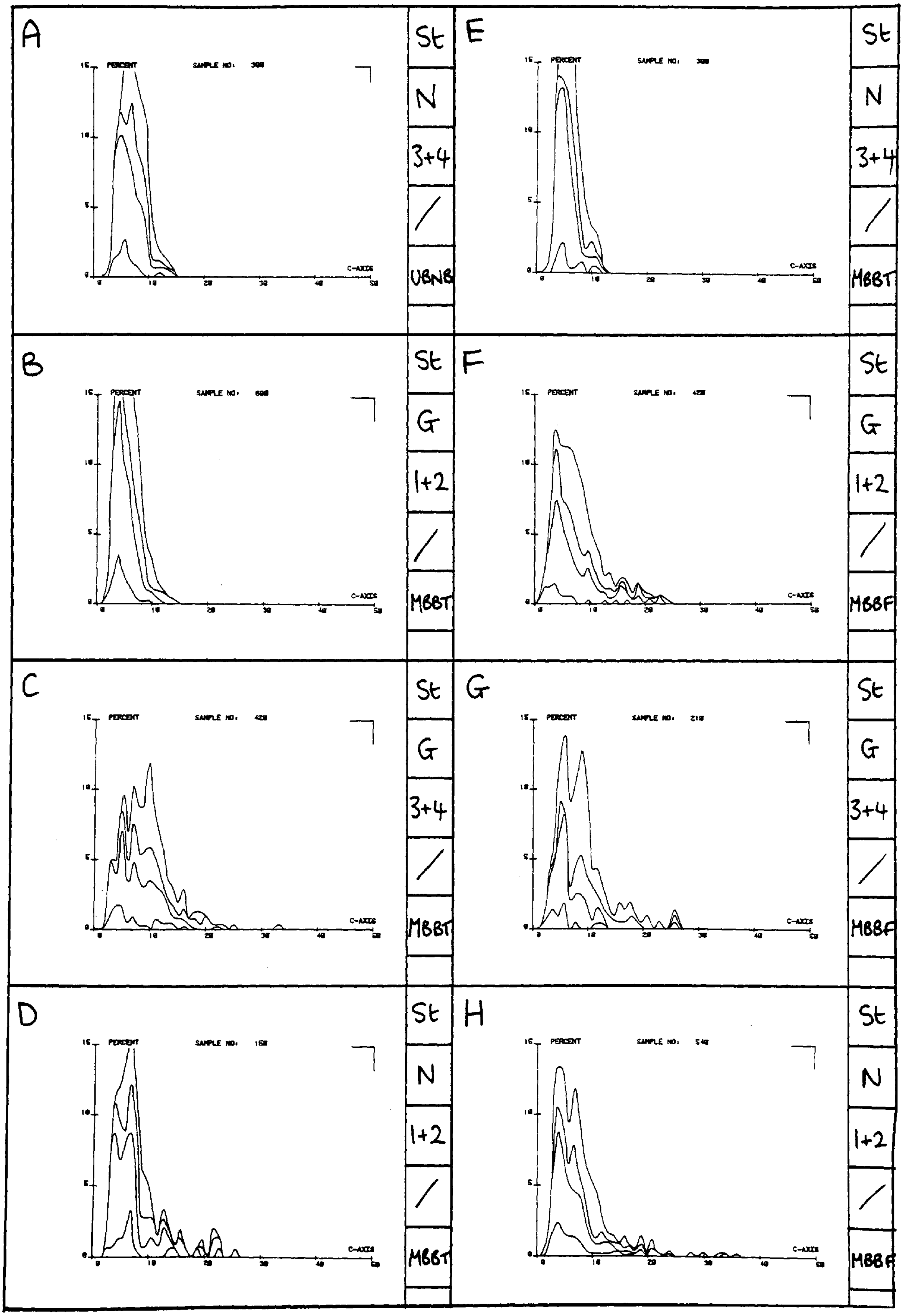
Shape-frequency 6.19C



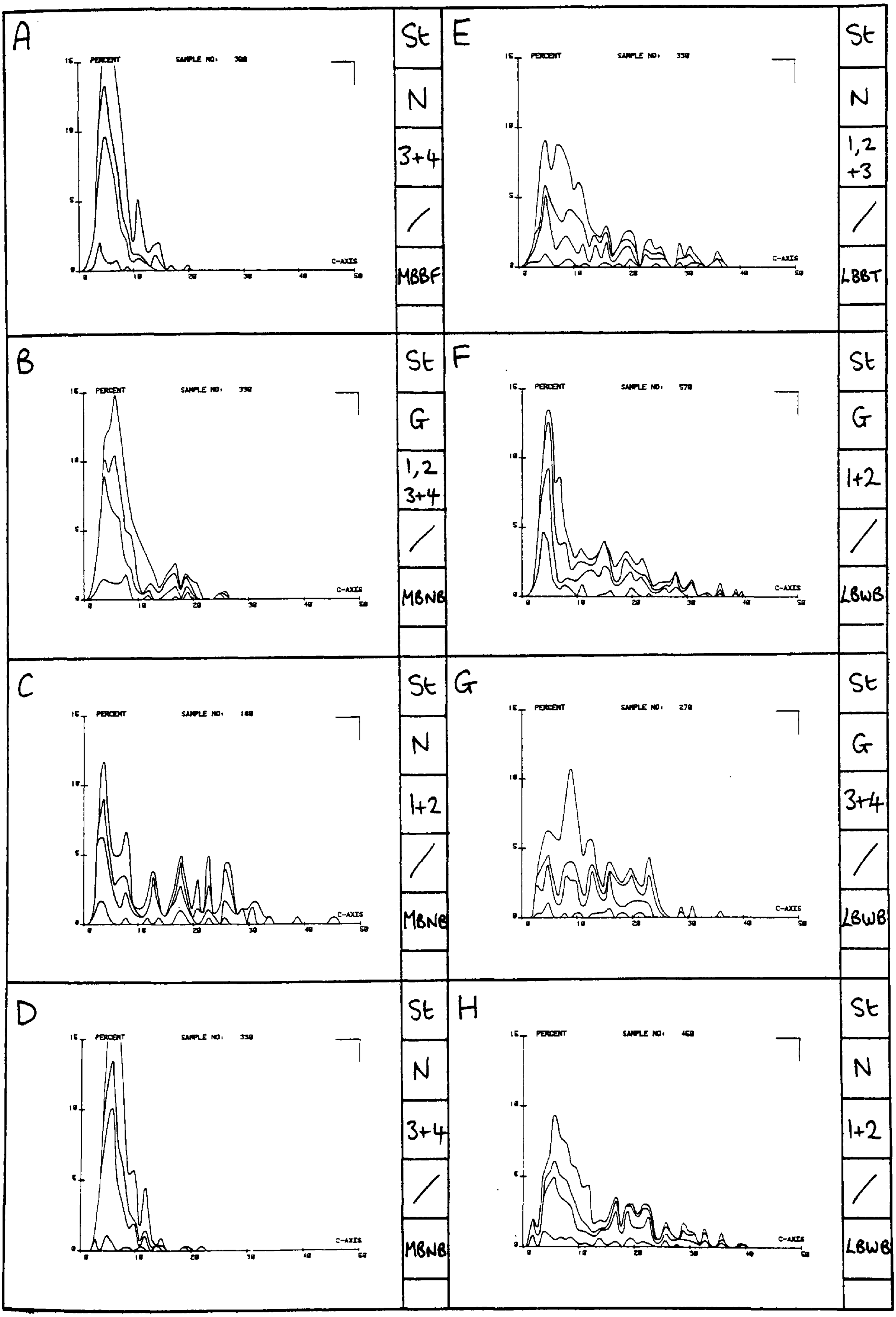
Shape-frequency 6.19D



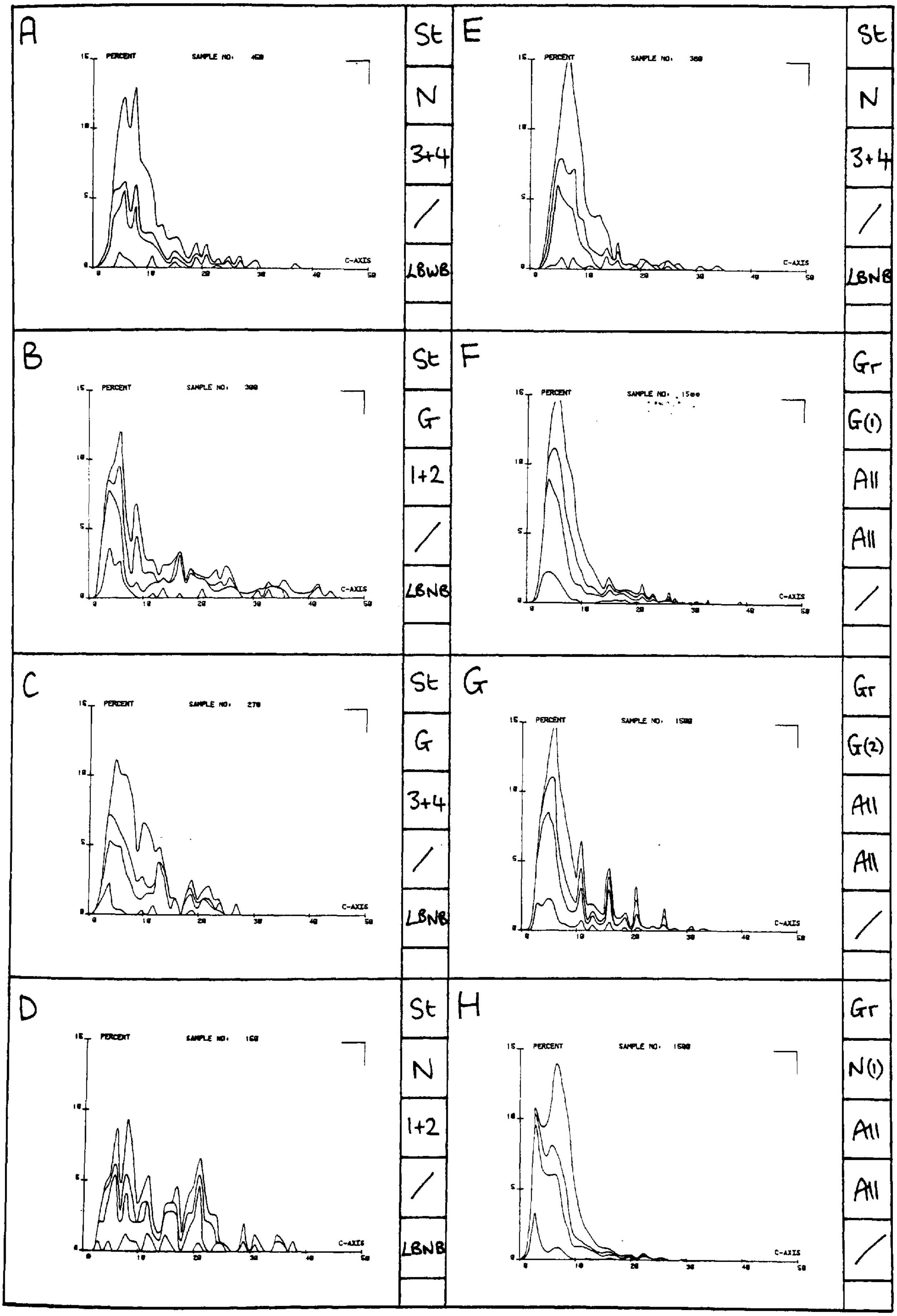
Shape-frequency 6.19E



Shape-frequency 6.19F

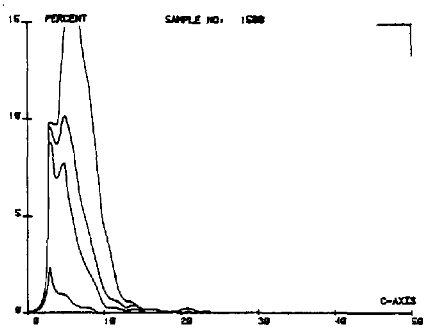


Shape-frequency 6.19G



Shape-frequency 6.19 H

A



Gr

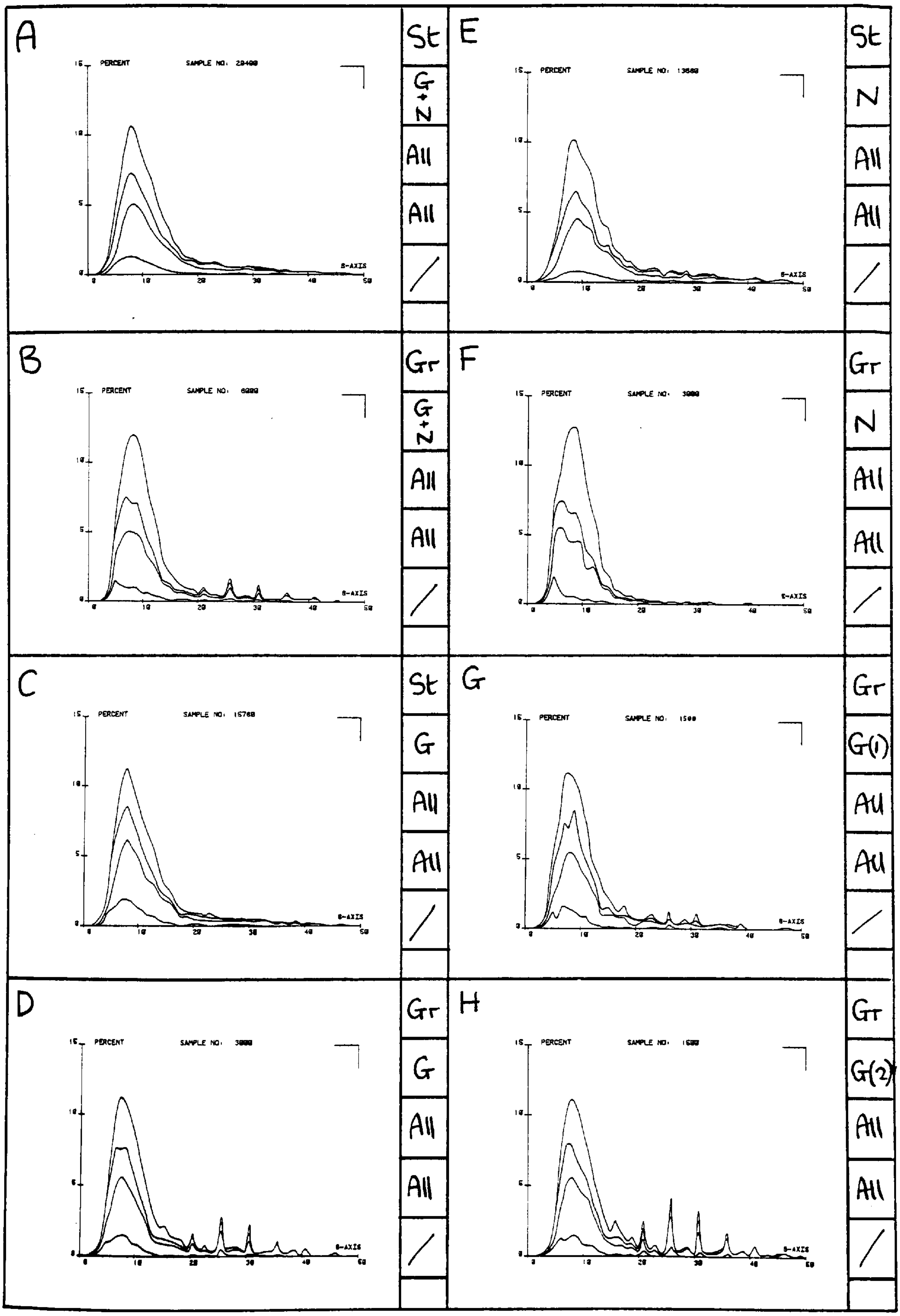
N(2)

All

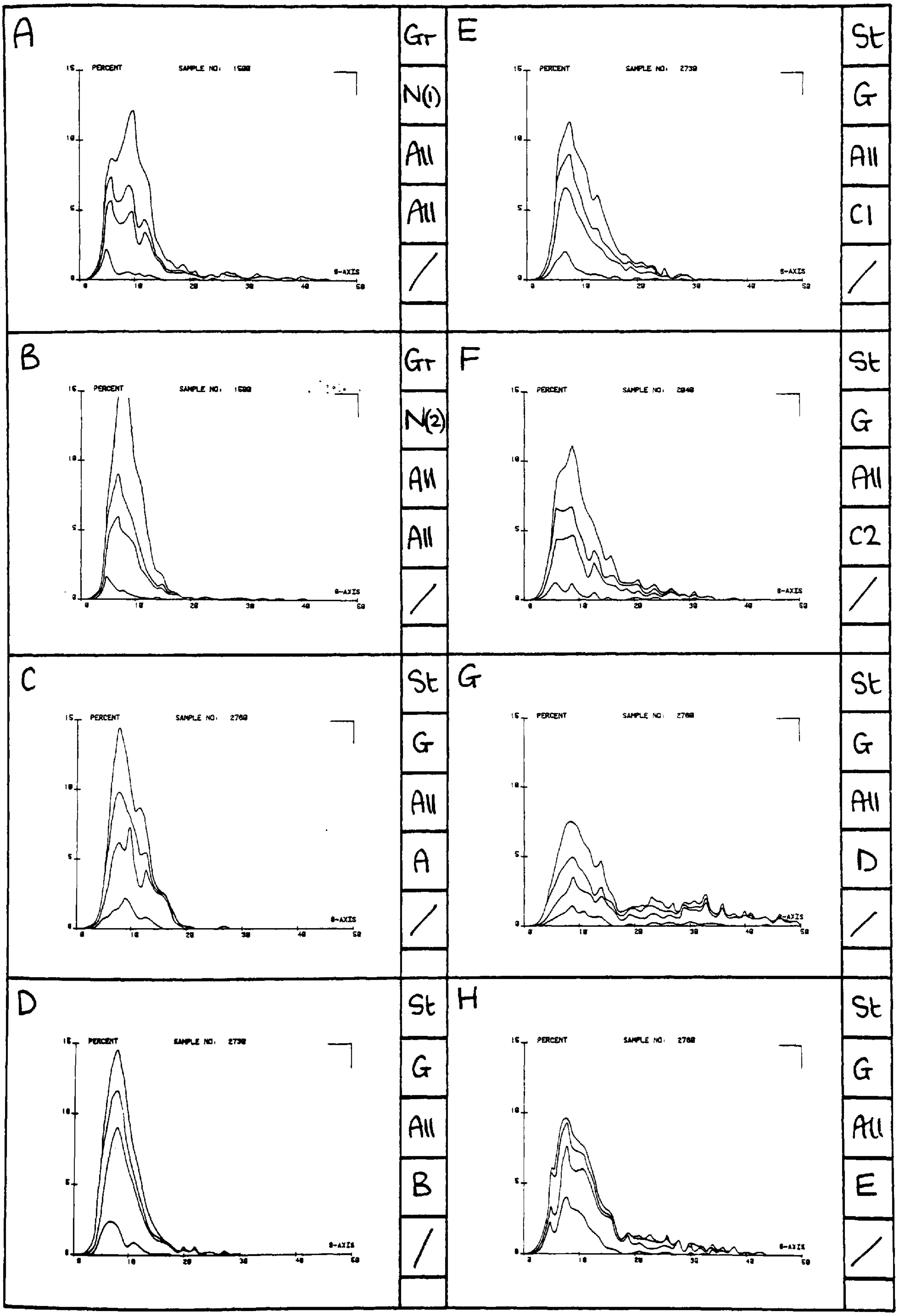
All

/

Shape-frequency 6.19 I

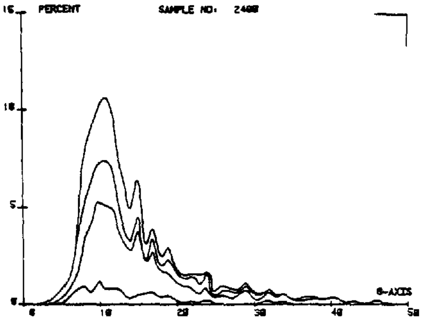


Shape-frequency 6.19J



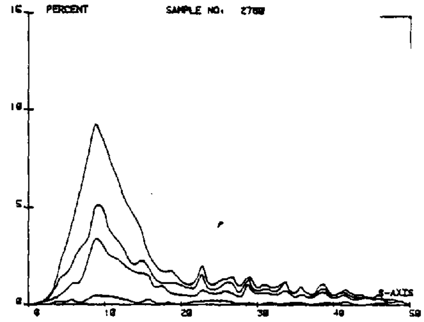
Shape-frequency 6.19K

A



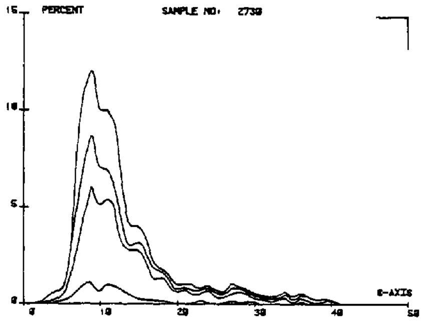
St | N | All | A | /

E



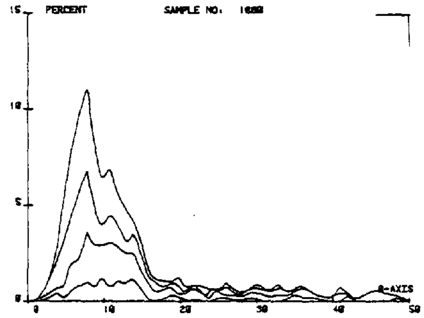
St | N | All | D | /

B



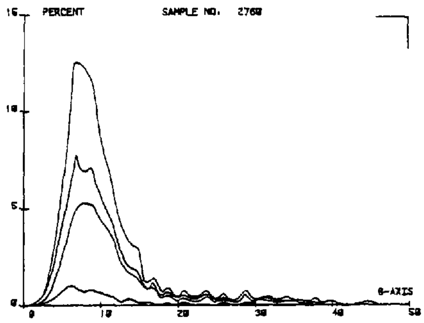
St | N | All | B | /

F



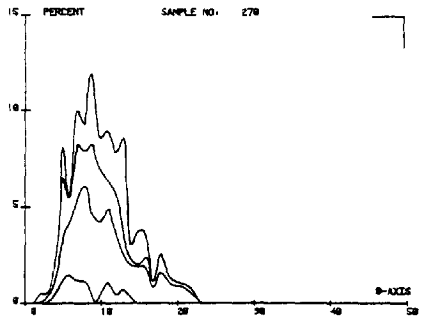
St | N | All | E | /

C



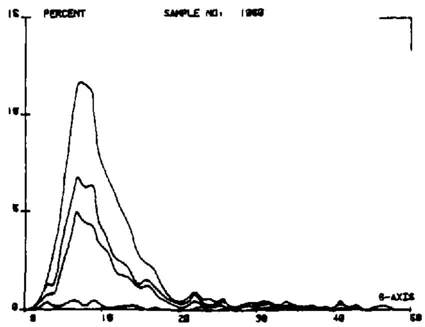
St | N | All | C1 | /

G



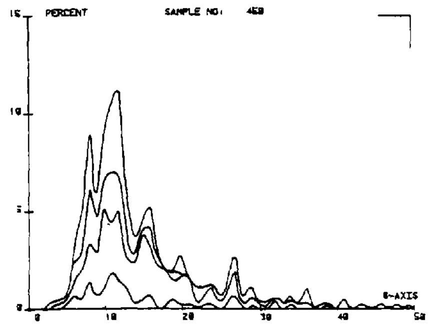
St | G | 1 | / | UBBT

D



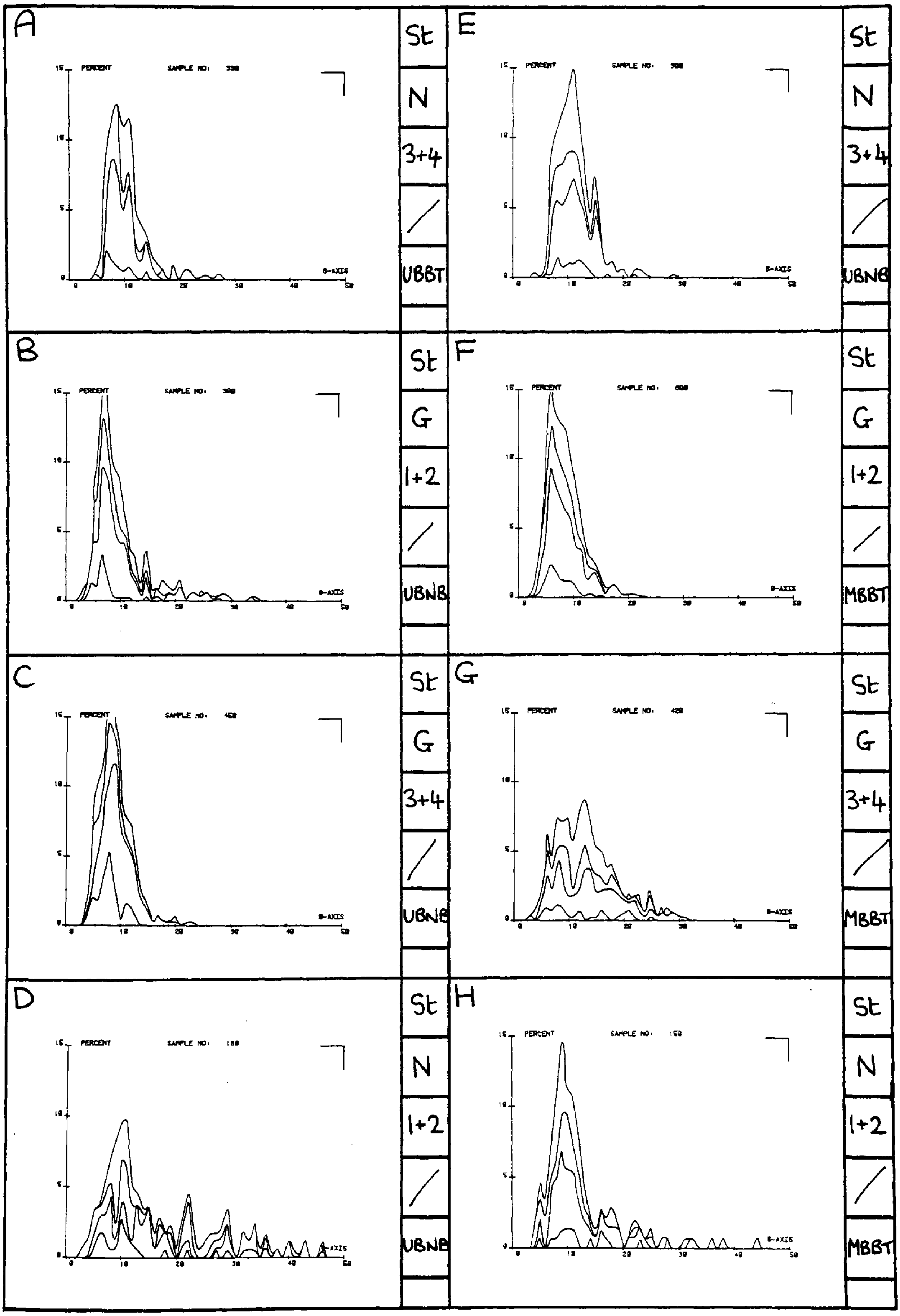
St | N | All | C2 | /

H



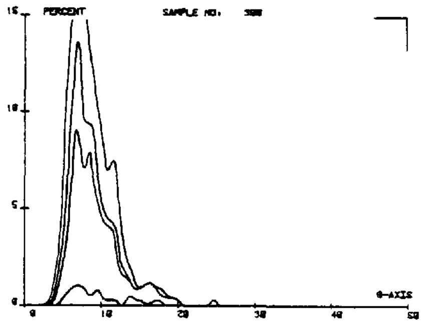
St | N | 1+2 | / | UBBT

Shape - frequency 6.19L



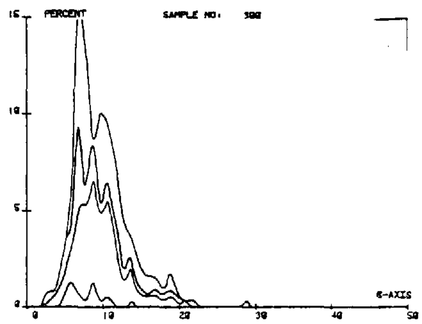
Shape - frequency 6.19M

A



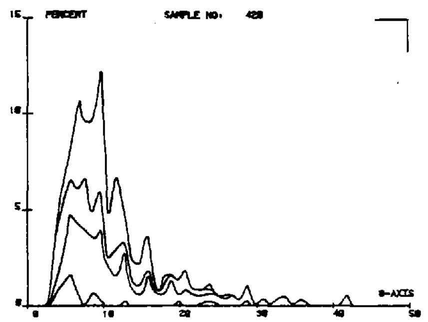
St
N
3+4
/
MBBT

E



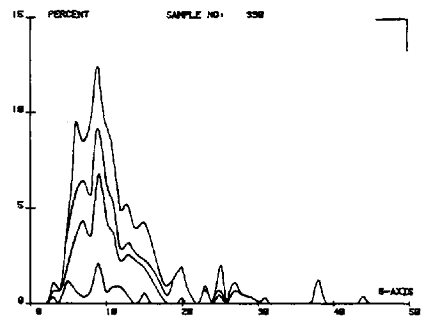
St
N
3+4
/
MBBF

B



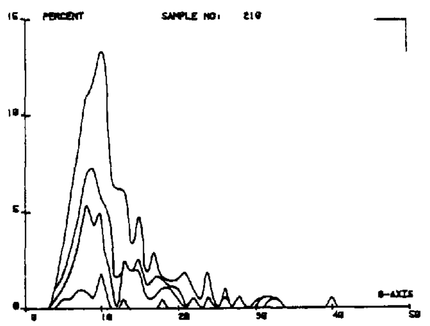
St
G
1+2
/
MBBF

F



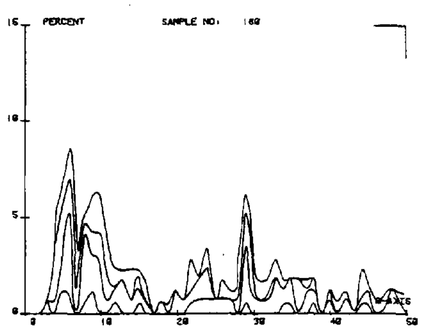
St
G
1,2,
3+4
/
MBNB

C



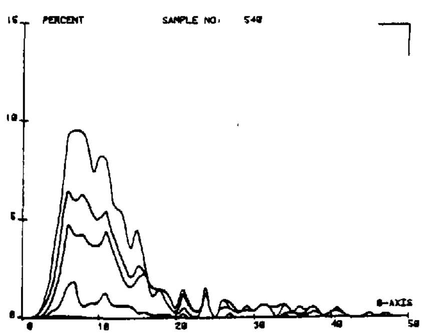
St
G
3+4
/
MBBF

G



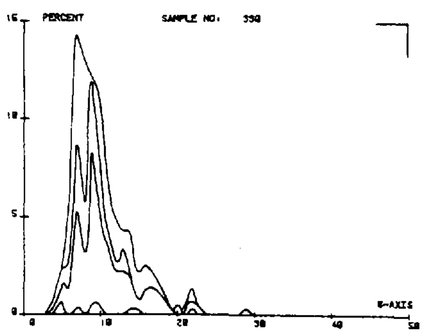
St
N
1+2
/
MBNB

D



St
N
1+2
/
MBBF

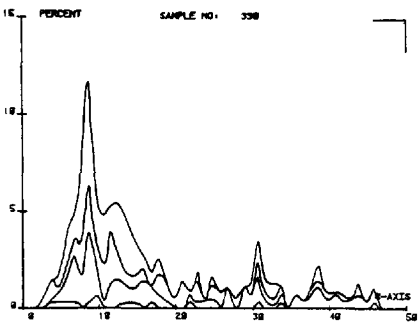
H



St
N
3+4
/
MBNB

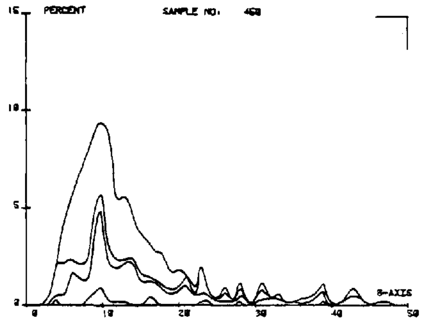
Shape-frequency 6.19N

A



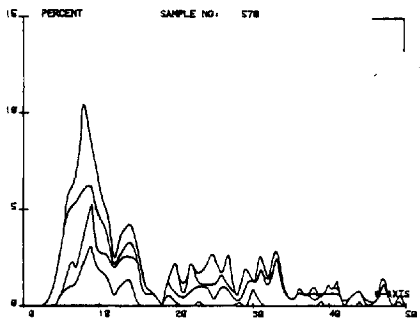
St
N
1, 2, 3
/
LBBT

E



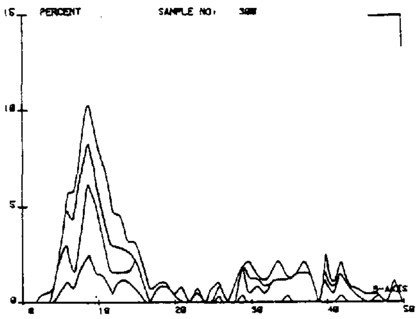
St
N
3+4
/
LBWB

B



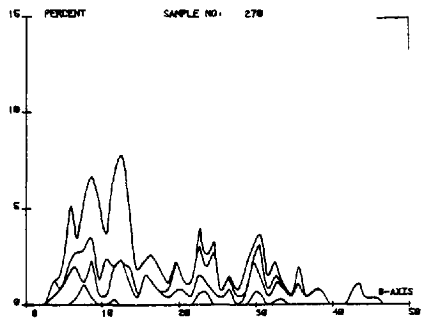
St
G
1+2
/
LBWB

F



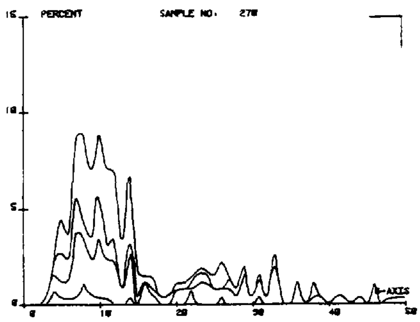
St
G
1+2
/
LBNB

C



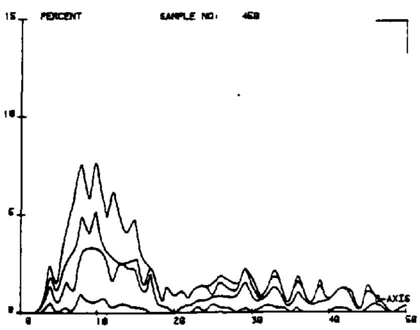
St
G
3+4
/
LBWB

G



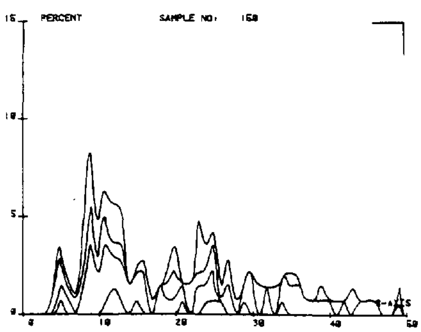
St
G
3+4
/
LBNB

D



St
N
1+2
/
LBWB

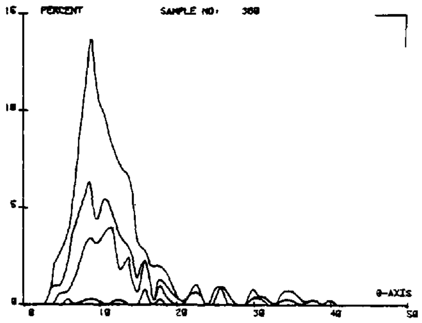
H



St
N
1+2
/
LBNB

Shape-frequency 6.190

A



St

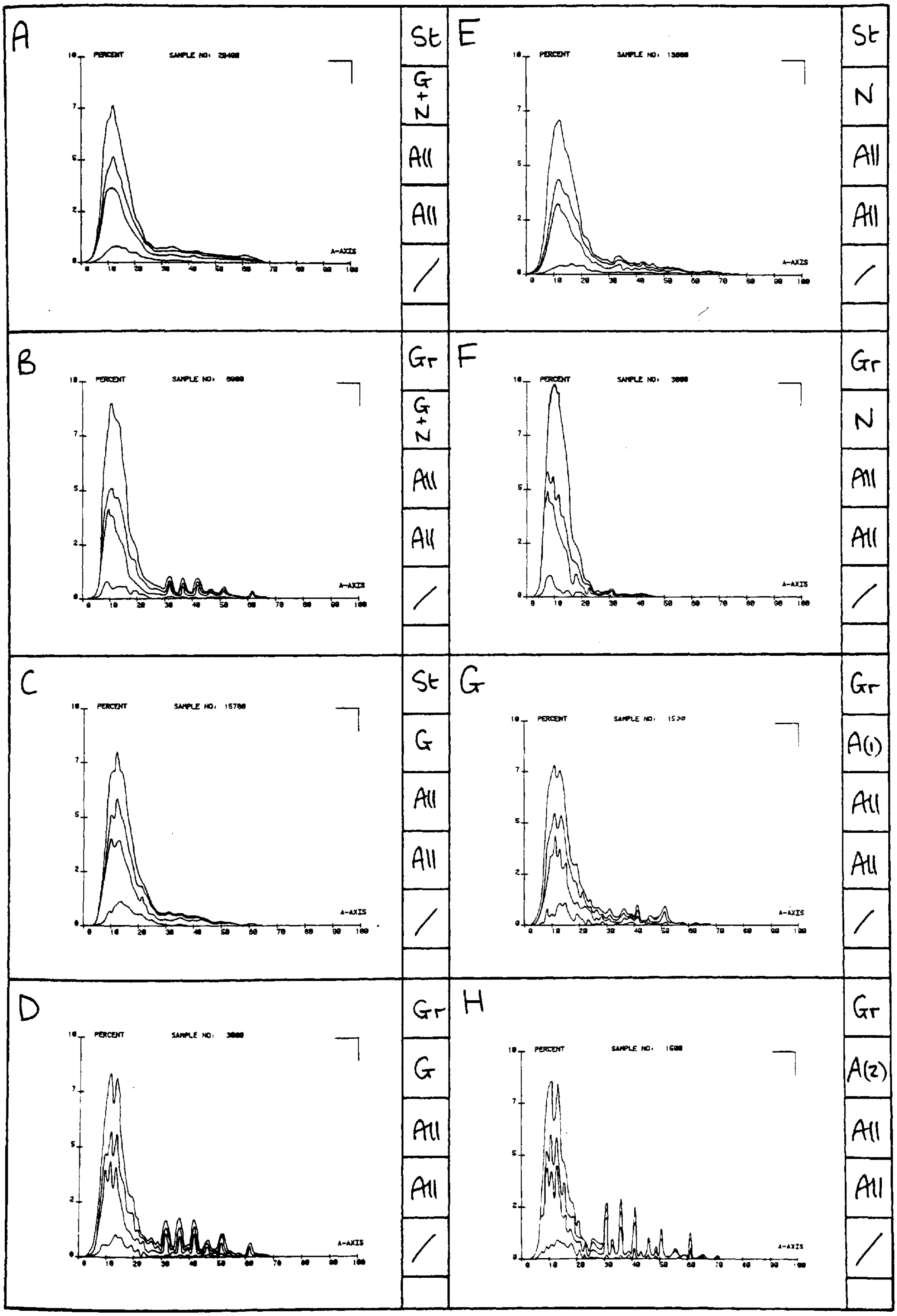
N

3+4

/

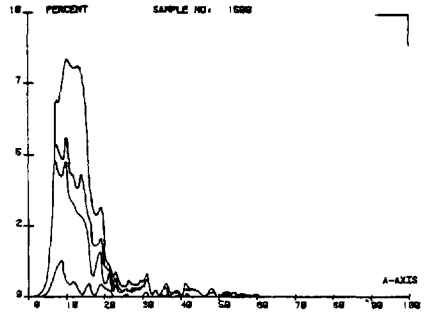
LBNB

Shape-frequency 6.19P



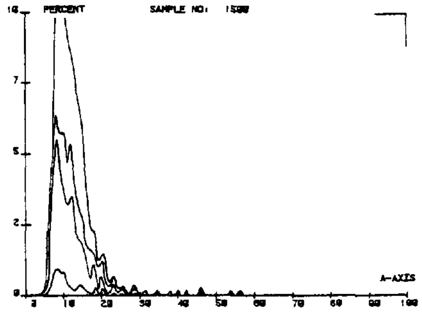
Shape-frequency 6.19Q

A



Gr
N(1)
All
All
/

B



Gr
N(2)
All
All
/

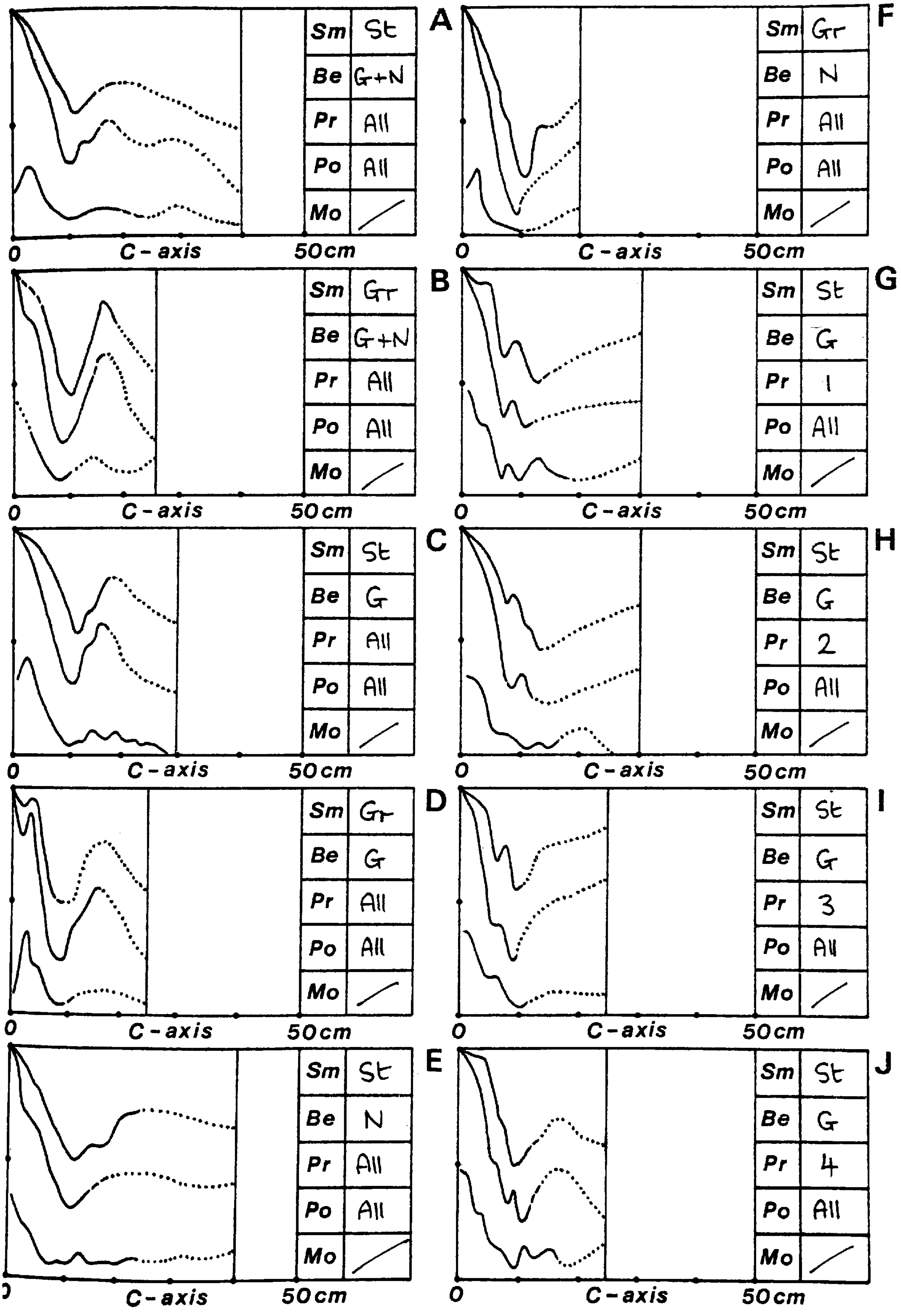
FIGURES 6.20AA-LJ SHAPE-PERCENT CURVES

These have been constructed according to the procedure outlined in section 6.2.3 of the text. The following information is contained on each diagram: The size parameter chosen to represent particle size (in cm) is indicated on the horizontal axis. The vertical axis is not labelled but runs in all cases from 0-100%. The area between the horizontal axis and the first curve represents the proportion of blades. The area between the first curve and the second represents the proportion of discs. That between the second and third curves represents the proportion of rods, while that between the third and fourth curves represents the proportion of spheres. REMEMBER: This is in alphabetic order to ease identification.

The sample itself can be identified from the code used on the righthand side of each diagram: St or Gr indicates standard or grid sampling (Sm). G or N signifies the beach (Be). The next box down indicates the cross-section (Pr) number from which the samples were taken. That below indicates the sampling point (Po) from which the samples were taken. The last box indicates (where appropriate) what morphological position (Mo) the samples were taken from. For an explanation of 1. the abreviations used see section 6.8.1, 2. the types of line used see Fig: 6.24.

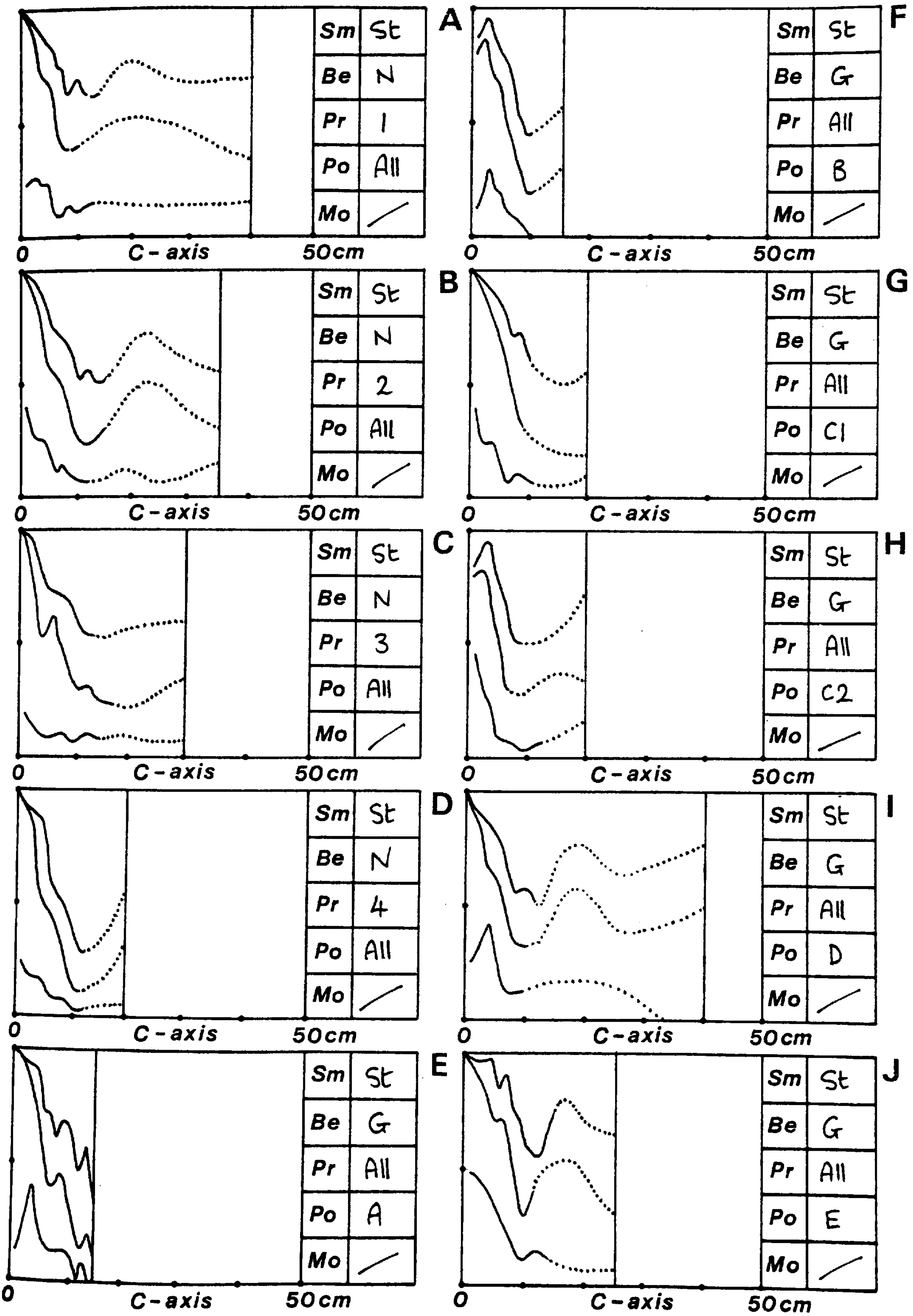
N.B. Data from which these diagrams were constructed is given in Appendix 6.1.

Shape-percent



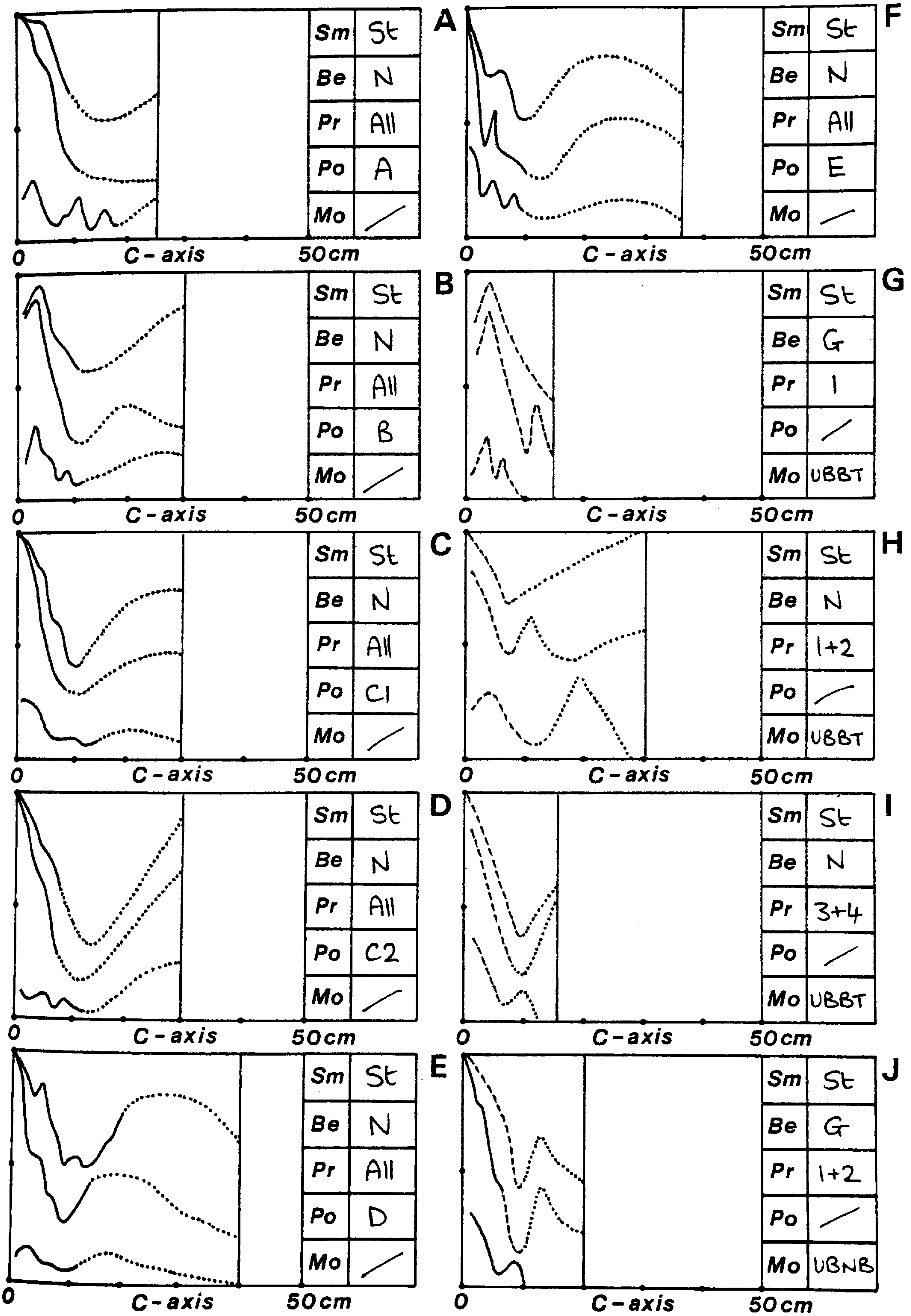
Shape-percent

6.20 (B)

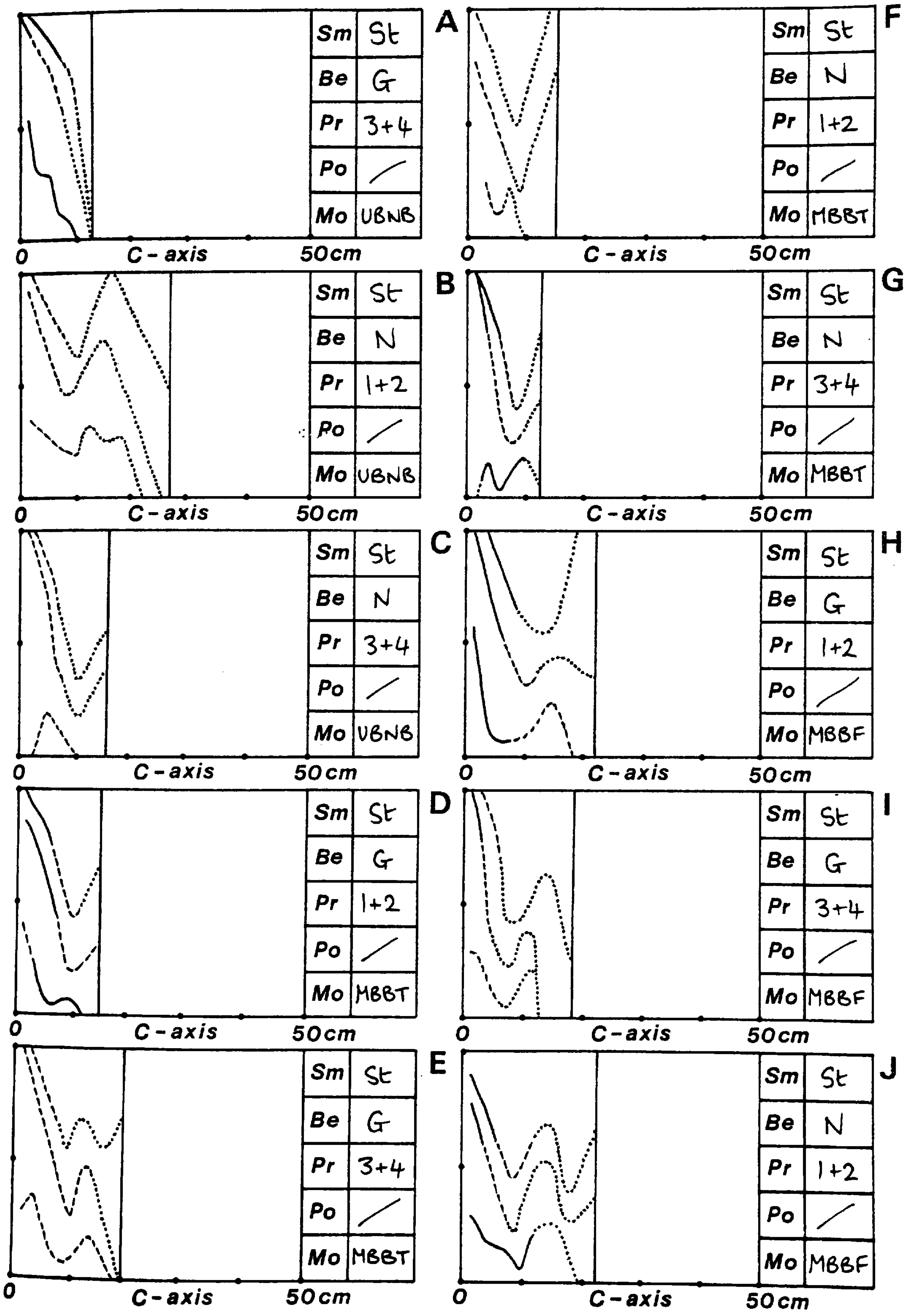


6.20 C

Shape-percent

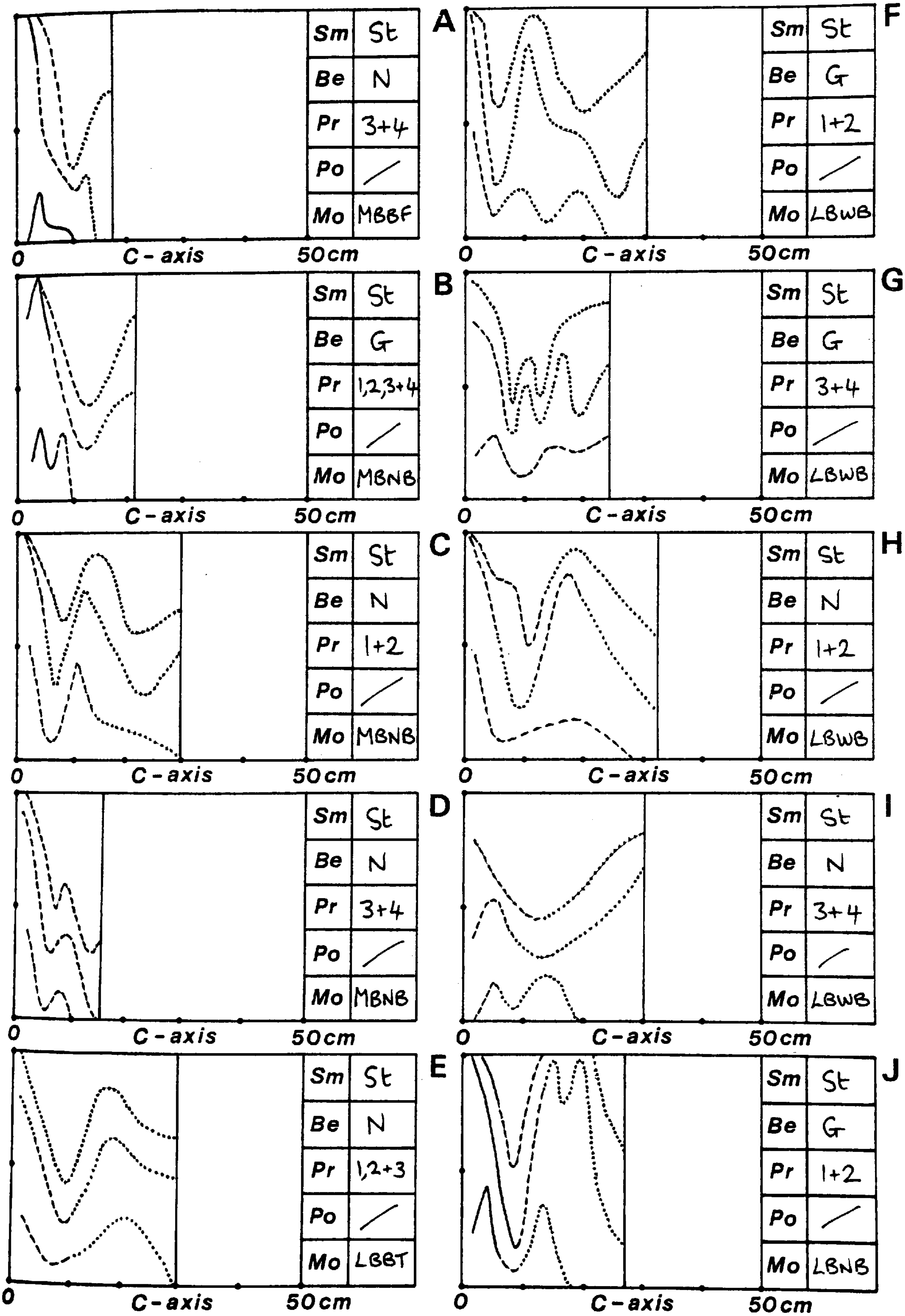


Shape-percent



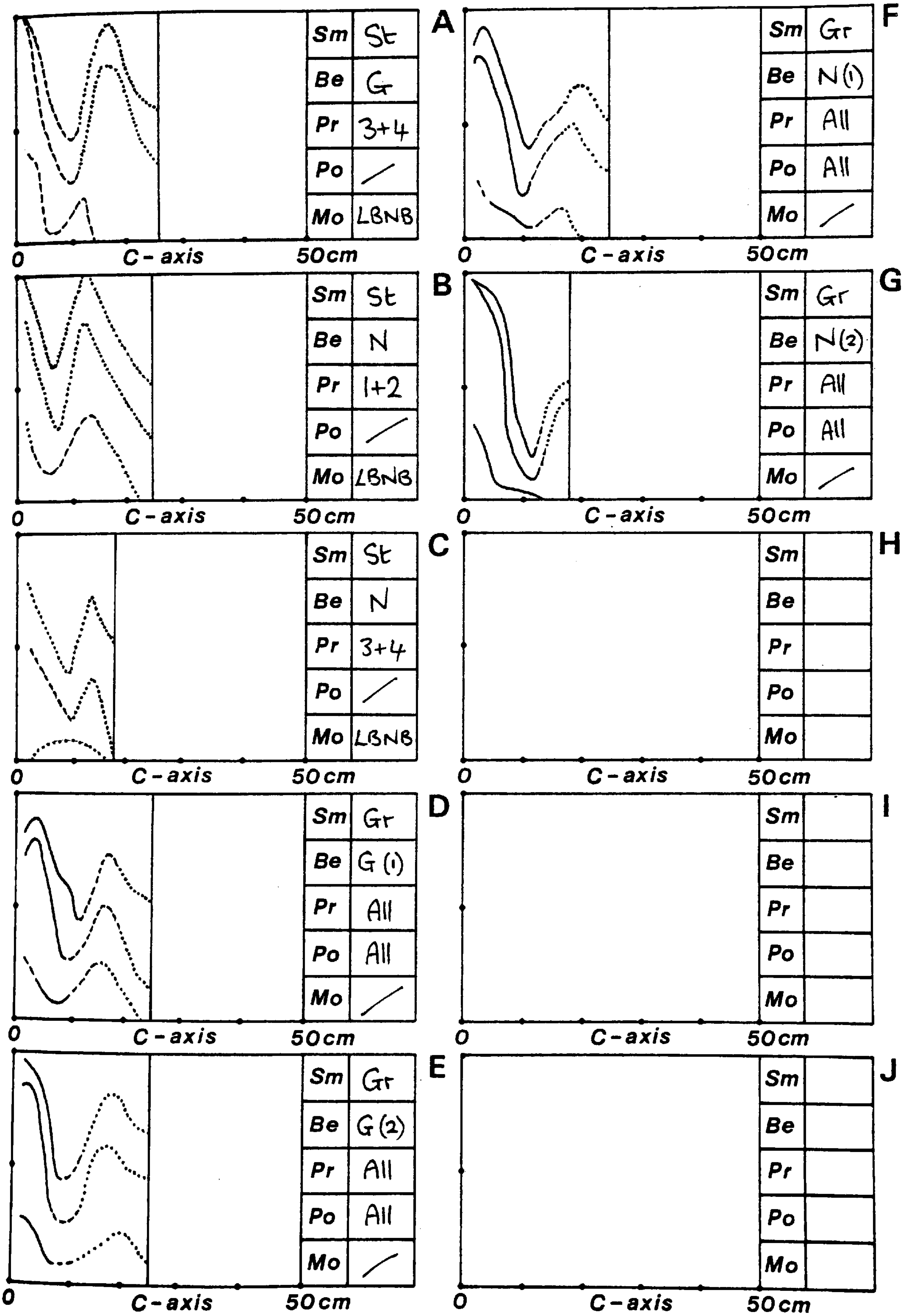
Shape-percent

6.20 (E)

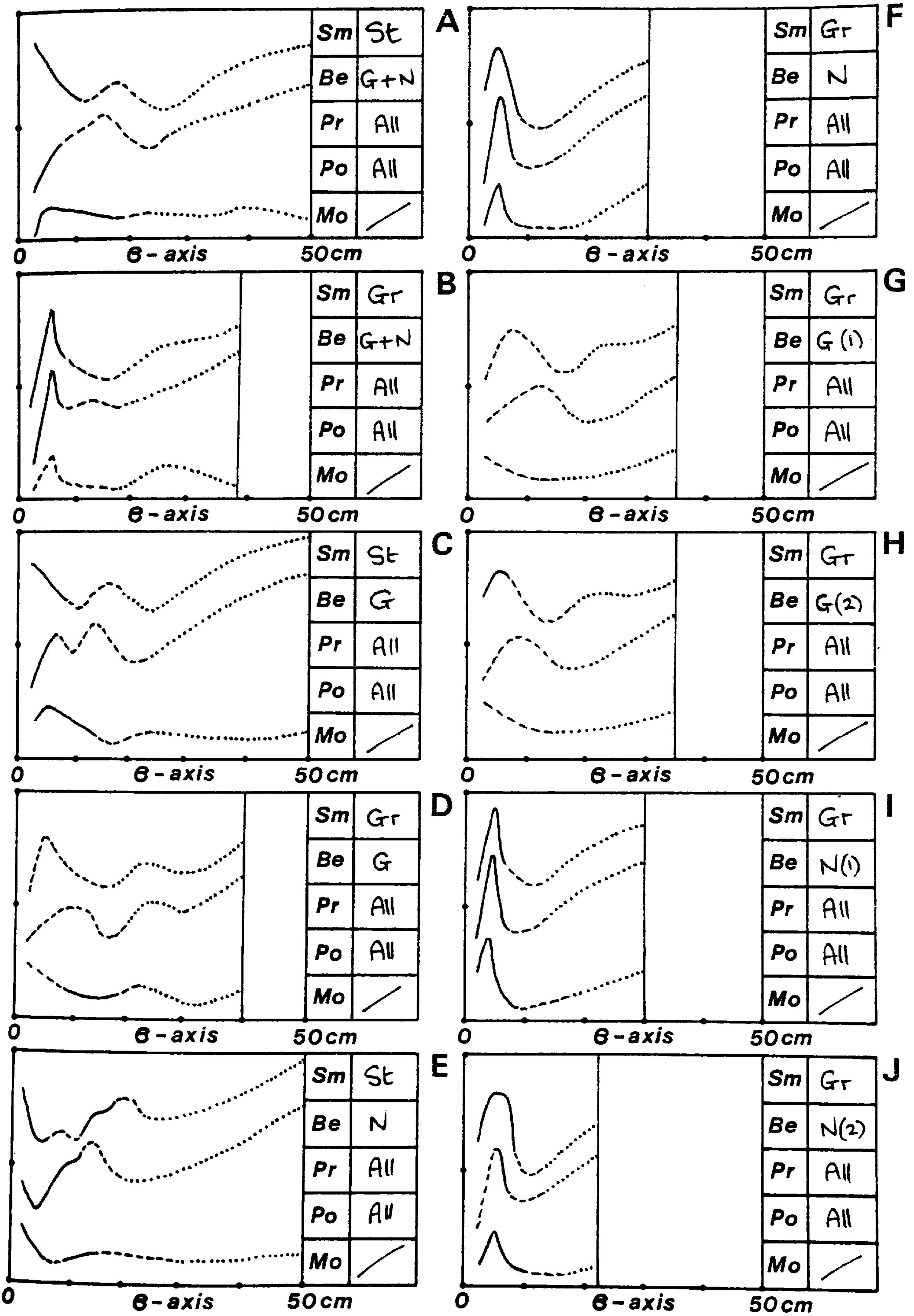


Shape-percent

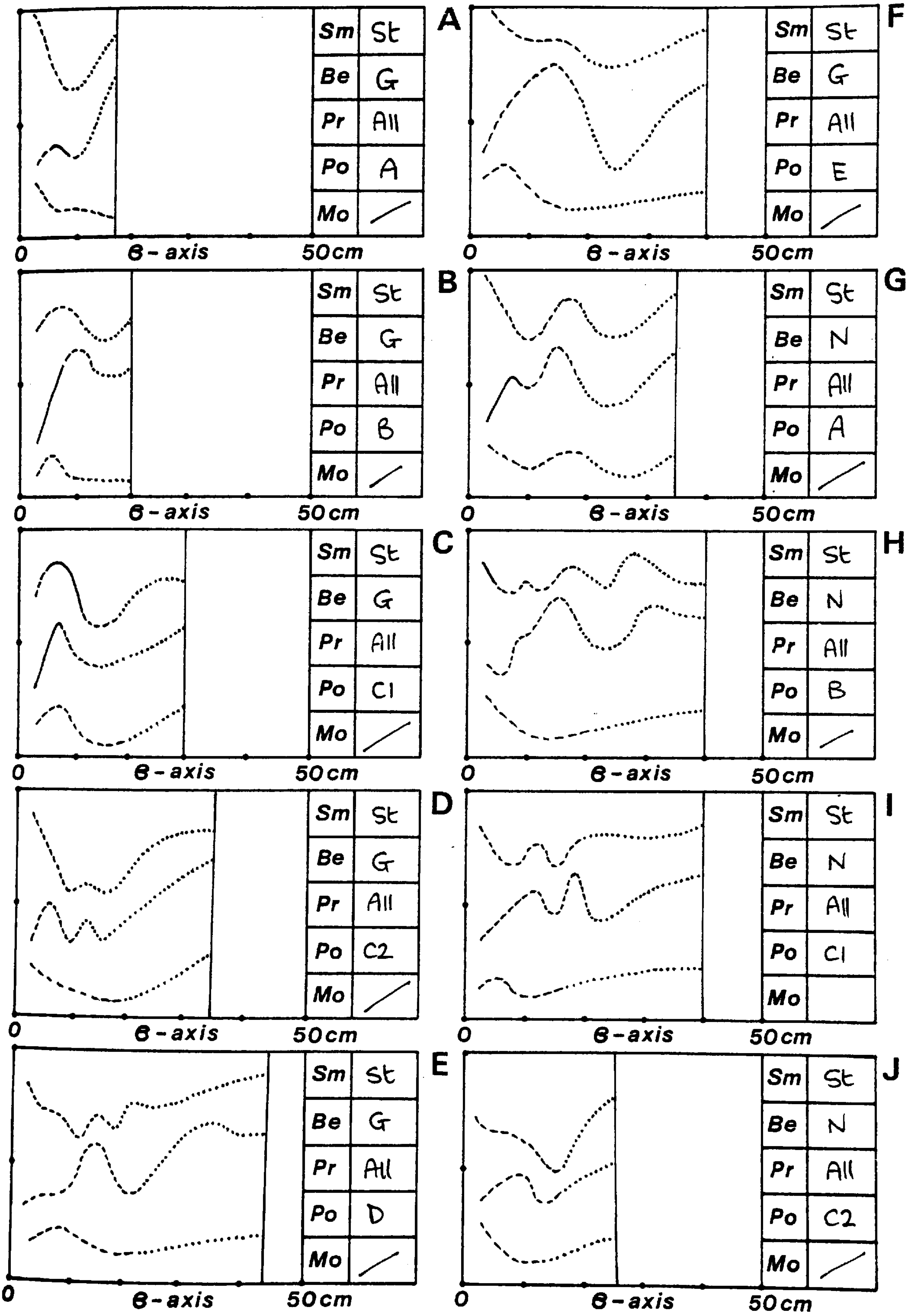
6.20 F



Shape-percent

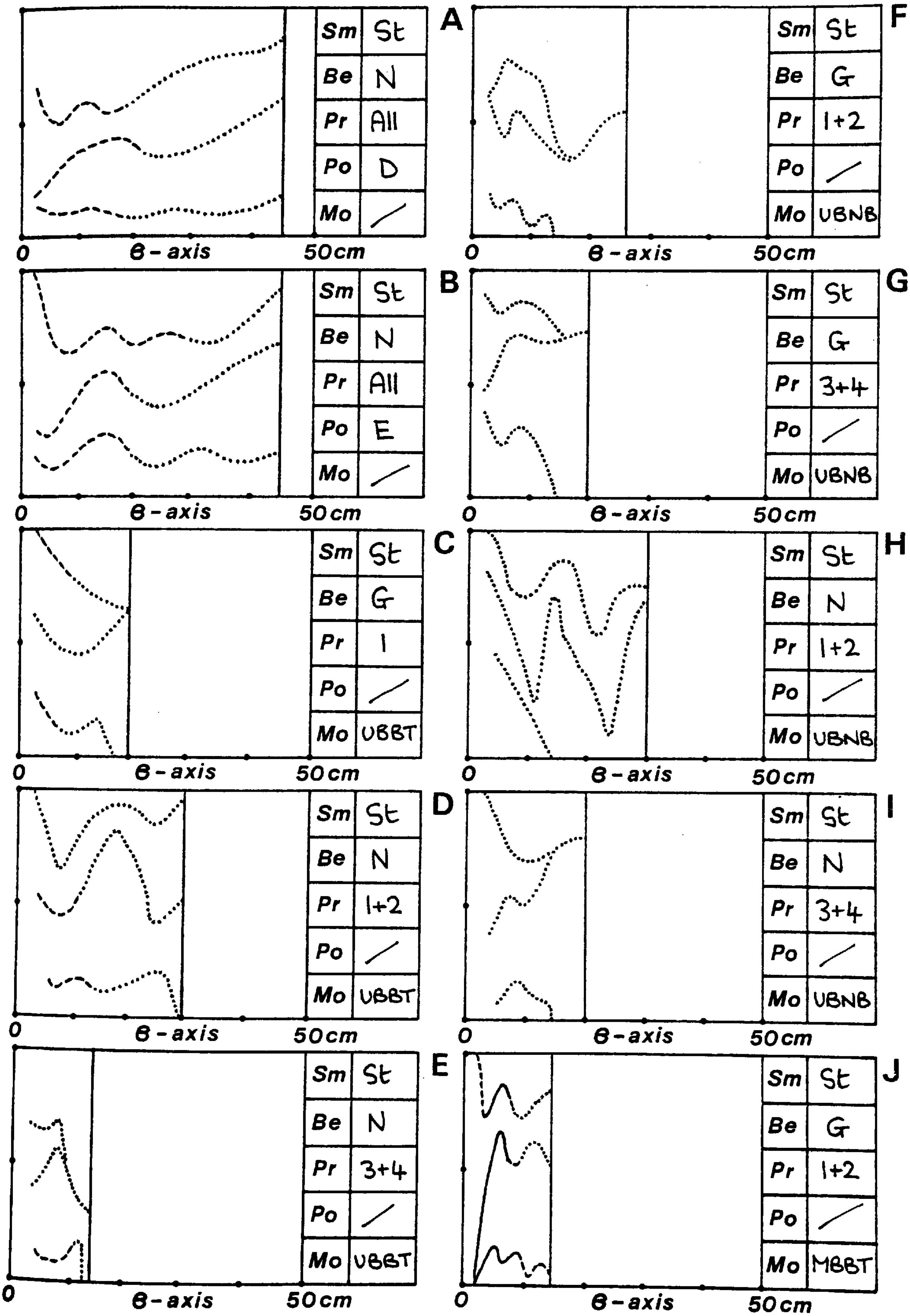


Shape-percent

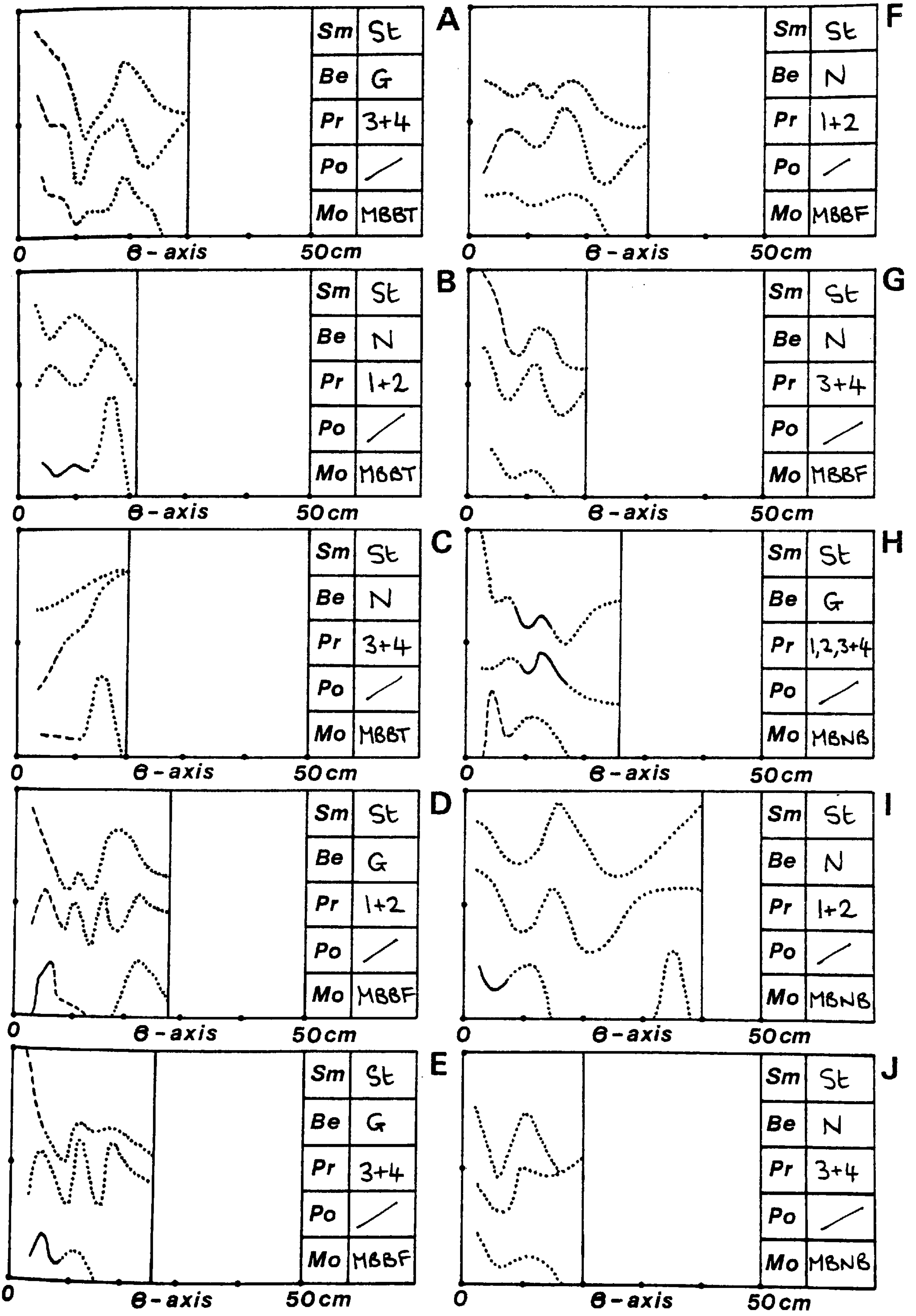


Shape-percent

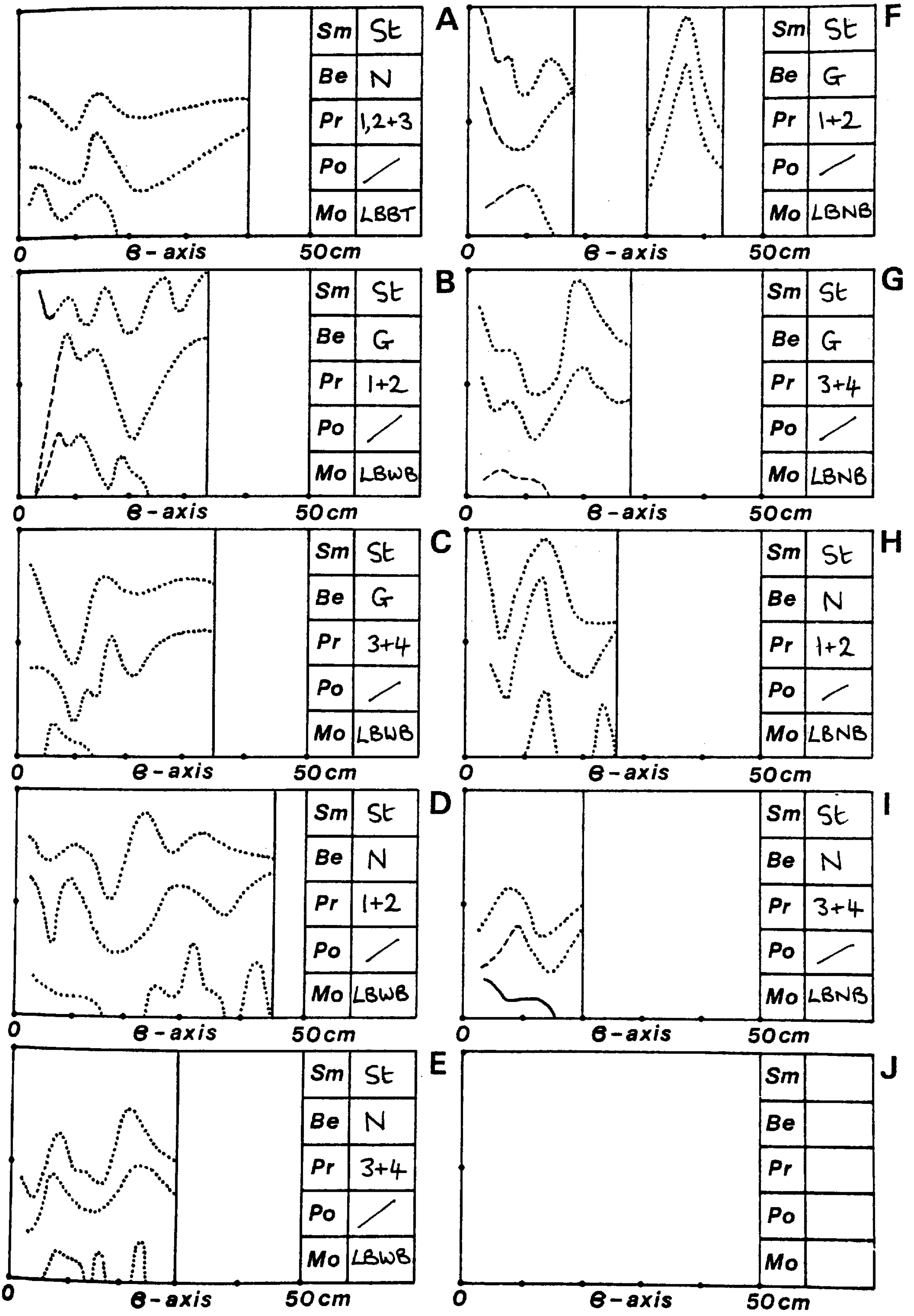
6.20 (I)



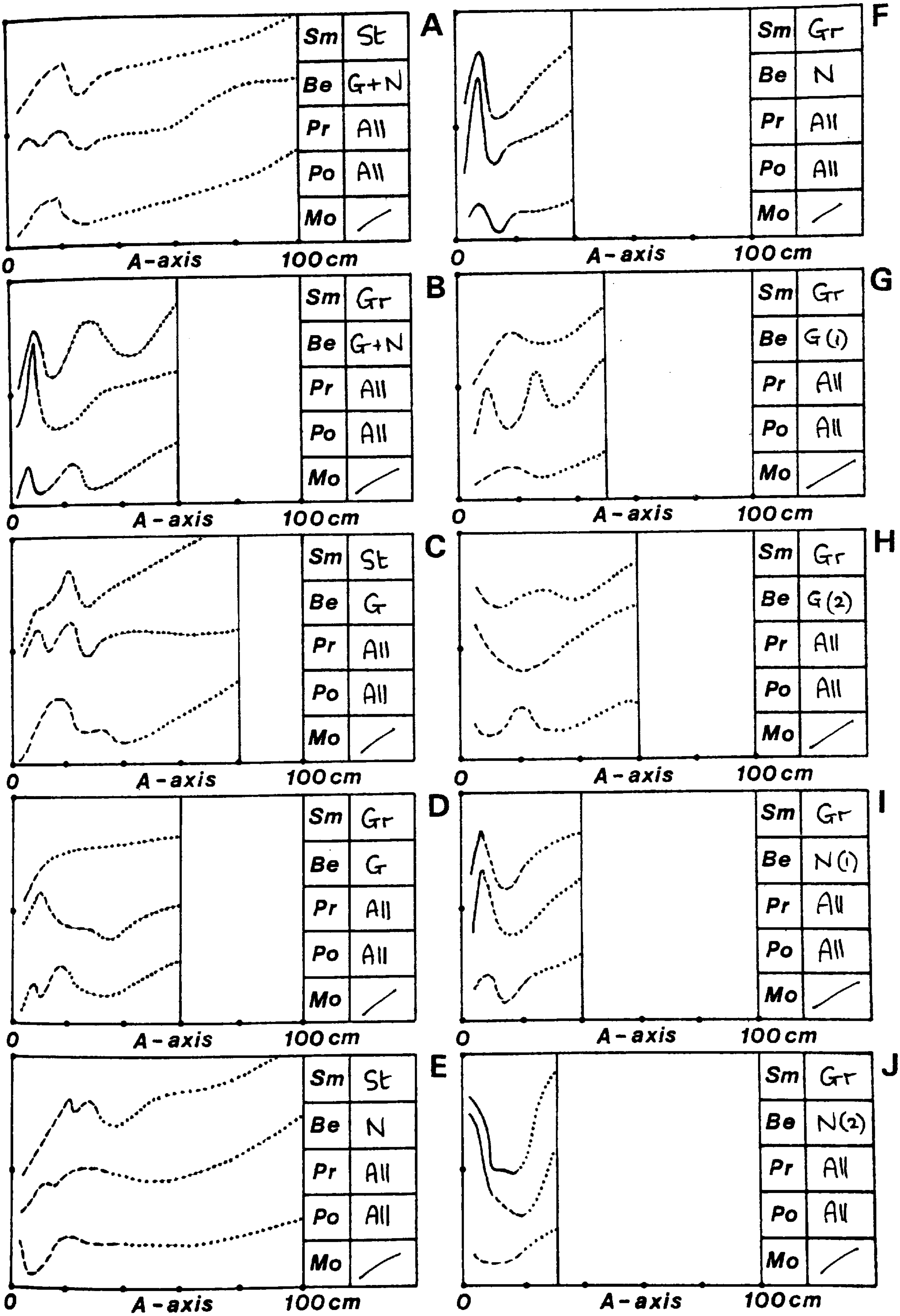
Shape-percent



Shape-percent



Shape-percent



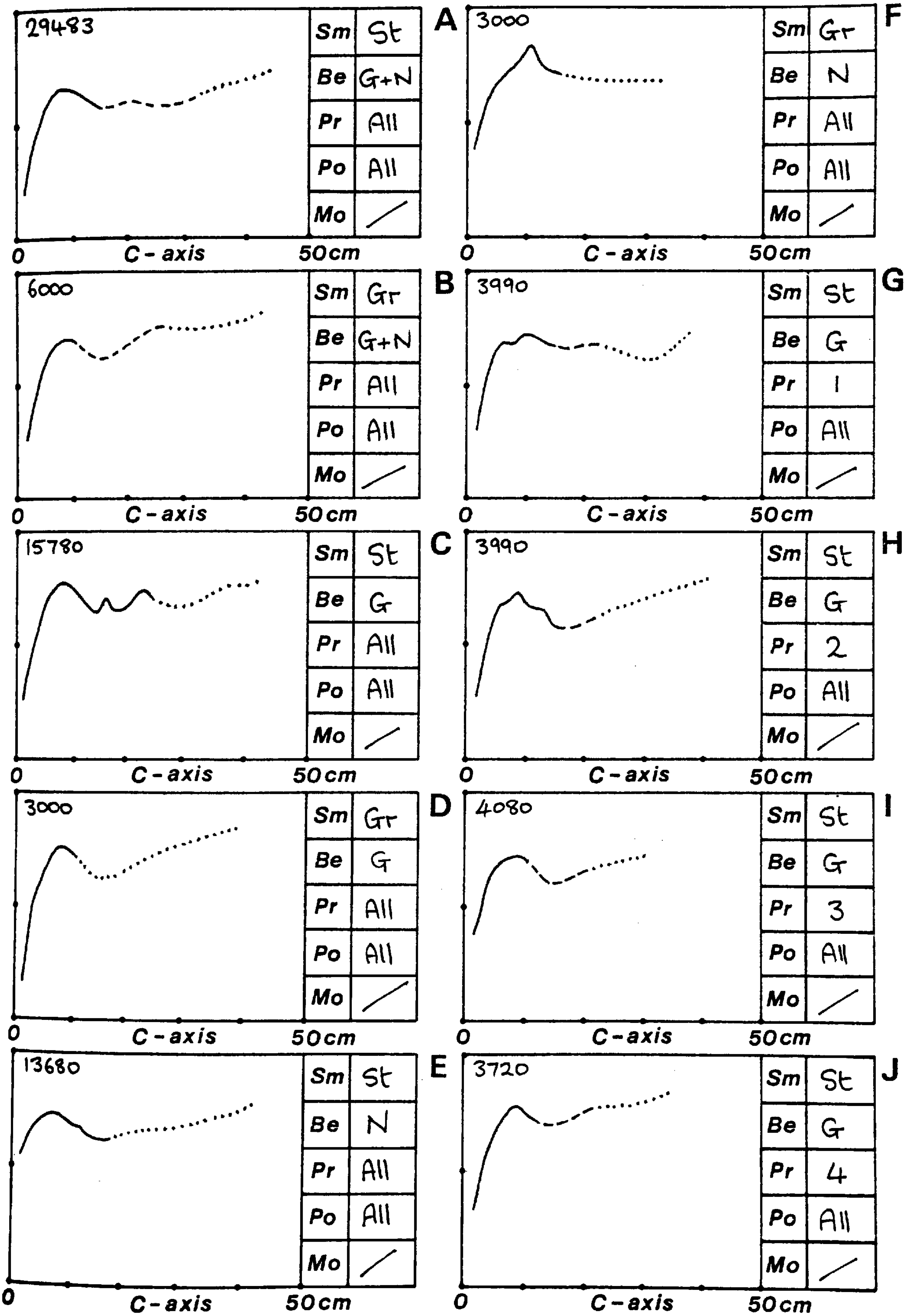
FIGURES 6.21AA-LJ MAXIMUM PROJECTION SPHERICITY (MPS) CURVES

These have been constructed according to the procedure outlined in section 6.2.3 of the text. The following information is contained on each diagram: The sample size is indicated at the top. The size parameter chosen to represent particle size (in cm) is indicated on the horizontal axis. The vertical axis is not labelled but runs in all cases from 0-1 (the higher values indicating increasing sphericity). The line illustrates how MPS changes as particle size increases.

The sample itself can be identified from the code used on the righthand side of each diagram: St or Gr indicates standard or grid sampling (Sm). G or N signifies the beach (Be). The next box down indicates the cross-section (Pr) number from which the samples were taken. That below indicates the sampling point (Po) from which the samples were taken. The last box indicates (where appropriate) what morphological position (Mo) the samples were taken from. For an explanation of 1. the abreviations used see section 6.8.1, 2. the types of line used see Fig: 6.24.
N.B. Data from which these diagrams were constructed is given in Appendix 6.1.

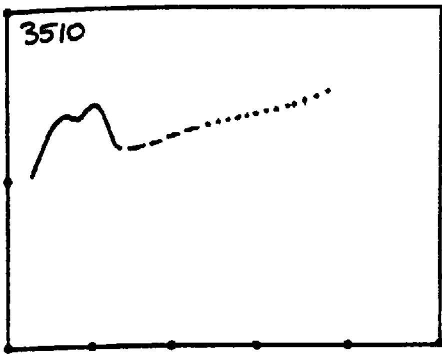
6.21 (A)

M.P.S.


A
29483
Sm St
Be G+N
Pr All
Po All
Mo
0 C-axis 50cm
B
6000
Sm Gr
Be G+N
Pr All
Po All
Mo
0 C-axis 50cm
C
15780
Sm St
Be G
Pr All
Po All
Mo
0 C-axis 50cm
D
3000
Sm Gr
Be G
Pr All
Po All
Mo
0 C-axis 50cm
E
13680
Sm St
Be N
Pr All
Po All
Mo
0 C-axis 50cm
F
3000
Sm Gr
Be N
Pr All
Po All
Mo
0 C-axis 50cm
G
3990
Sm St
Be G
Pr 1
Po All
Mo
0 C-axis 50cm
H
3990
Sm St
Be G
Pr 2
Po All
Mo
0 C-axis 50cm
I
4080
Sm St
Be G
Pr 3
Po All
Mo
0 C-axis 50cm
J
3720
Sm St
Be G
Pr 4
Po All
Mo
0 C-axis 50cm

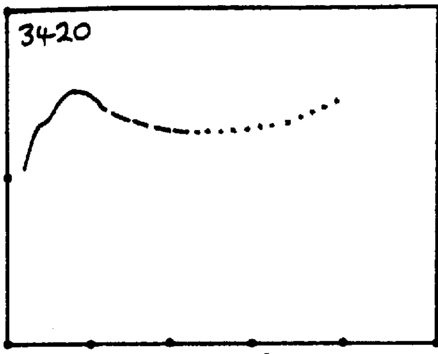
M.P.S.

A



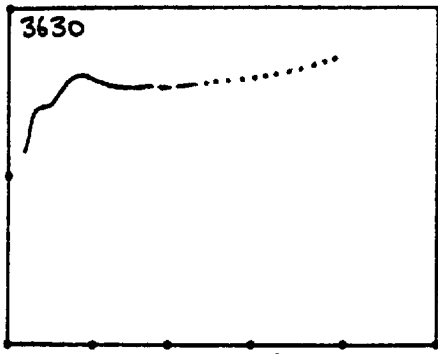
Sm	St
Be	N
Pr	1
Po	All
Mo	/

B



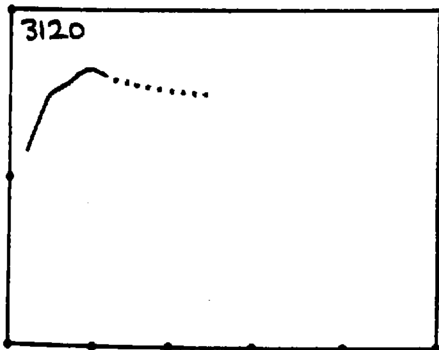
Sm	St
Be	N
Pr	2
Po	All
Mo	/

C



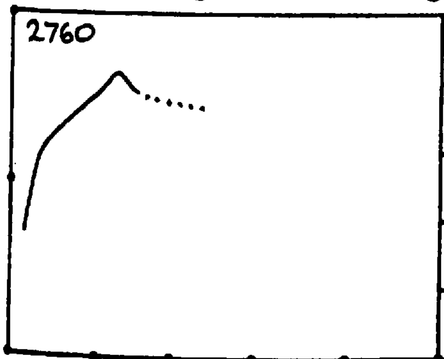
Sm	St
Be	N
Pr	3
Po	All
Mo	/

D



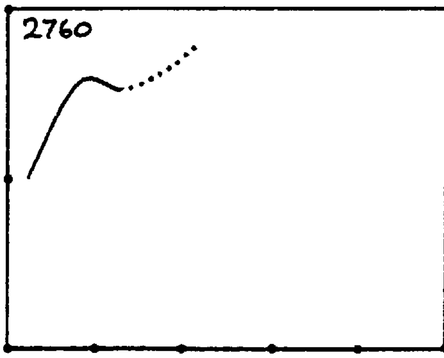
Sm	St
Be	N
Pr	4
Po	All
Mo	/

E



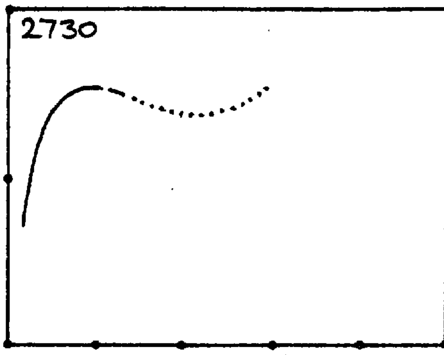
Sm	St
Be	G
Pr	All
Po	A
Mo	/

F



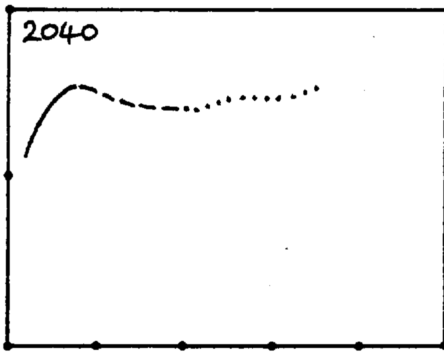
Sm	St
Be	G
Pr	All
Po	B
Mo	/

G



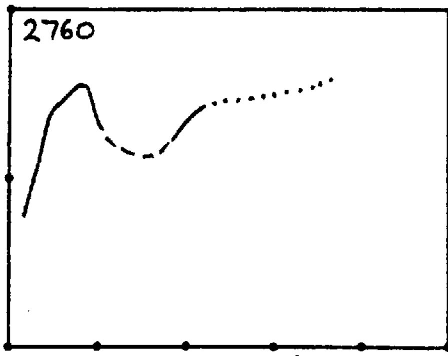
Sm	St
Be	G
Pr	All
Po	C1
Mo	/

H



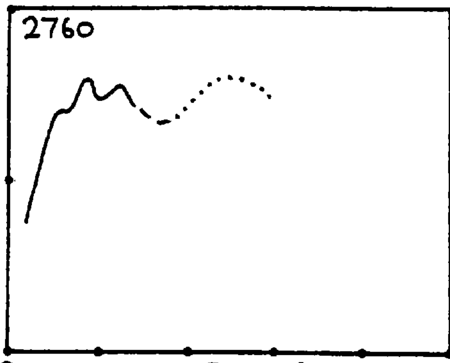
Sm	St
Be	G
Pr	All
Po	C2
Mo	/

I



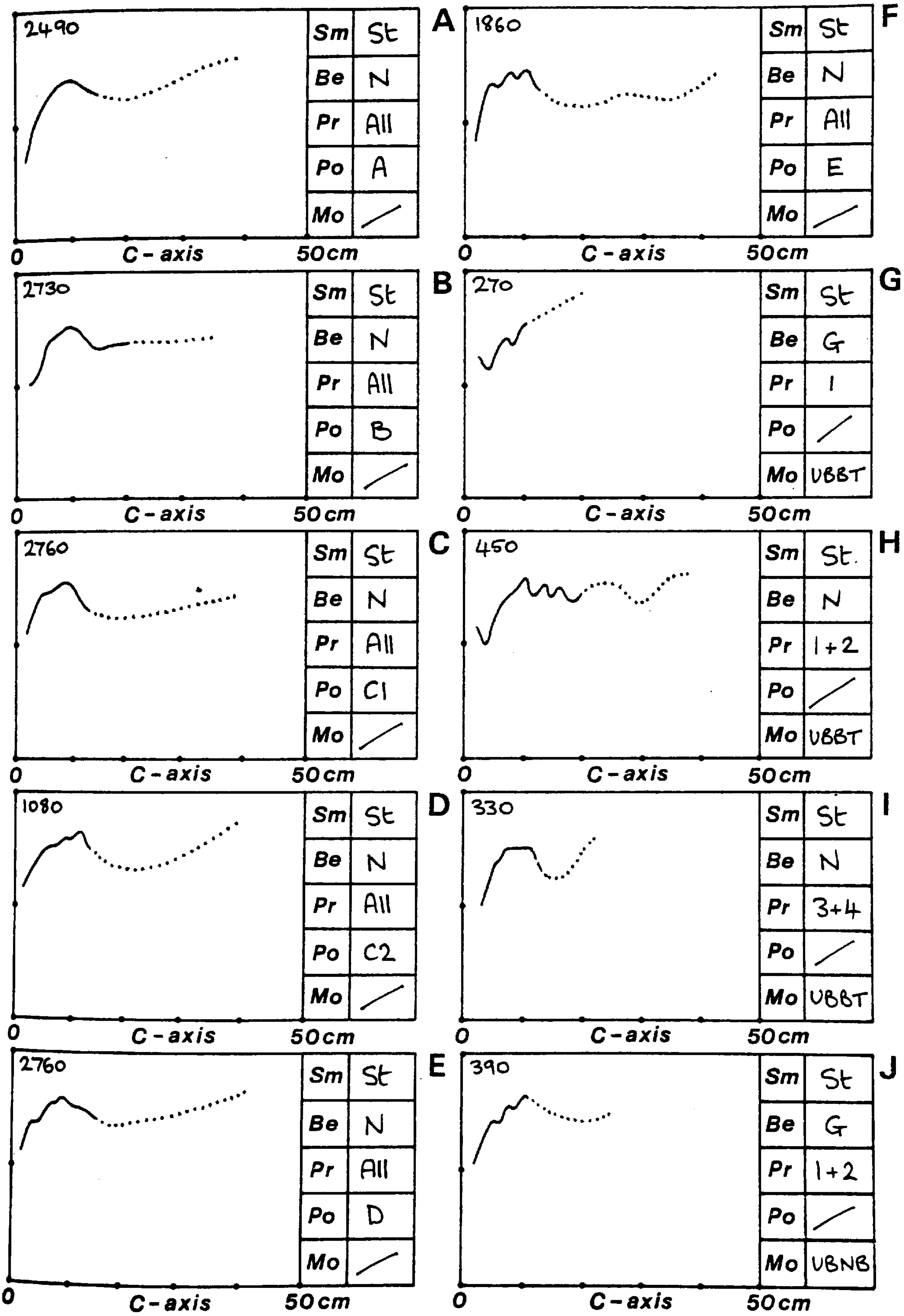
Sm	St
Be	G
Pr	All
Po	D
Mo	/

J



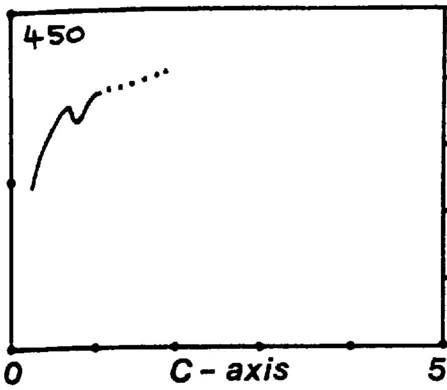
Sm	St
Be	G
Pr	All
Po	E
Mo	/

M.P.S.


A
2490
Sm St
Be N
Pr All
Po A
Mo
0 C - axis 50cm
B
2730
Sm St
Be N
Pr All
Po B
Mo
0 C - axis 50cm
C
2760
Sm St
Be N
Pr All
Po C1
Mo
0 C - axis 50cm
D
1080
Sm St
Be N
Pr All
Po C2
Mo
0 C - axis 50cm
E
2760
Sm St
Be N
Pr All
Po D
Mo
0 C - axis 50cm
F
1860
Sm St
Be N
Pr All
Po E
Mo
0 C - axis 50cm
G
270
Sm St
Be G
Pr 1
Po
Mo VBBT
0 C - axis 50cm
H
450
Sm St.
Be N
Pr 1+2
Po
Mo VBBT
0 C - axis 50cm
I
330
Sm St
Be N
Pr 3+4
Po
Mo VBBT
0 C - axis 50cm
J
390
Sm St
Be G
Pr 1+2
Po
Mo VBNB
0 C - axis 50cm

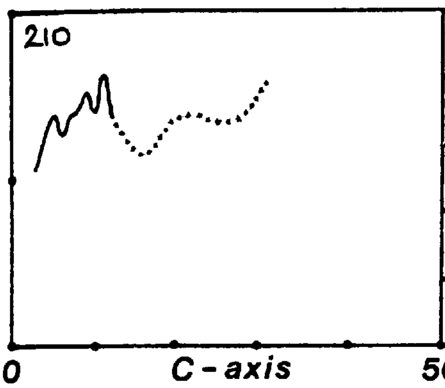
M.P.S.

A



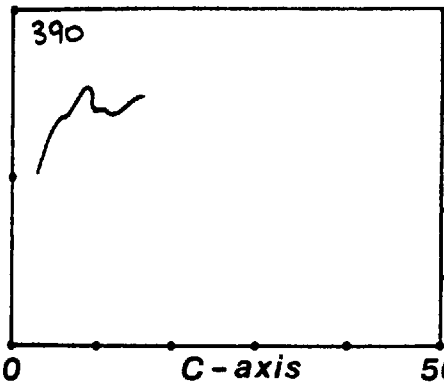
Sm	St
Be	G
Pr	3+4
Po	/
Mo	UBNB

B



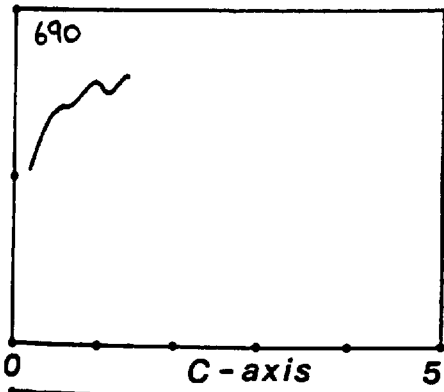
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBNB

C



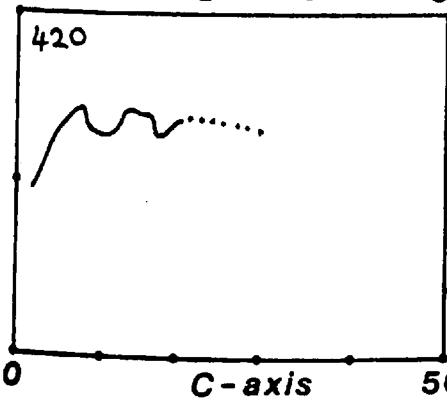
Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBNB

D



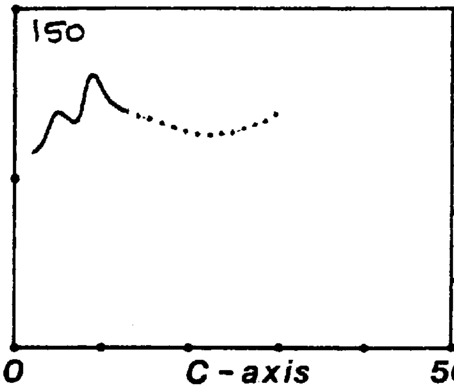
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBT

E



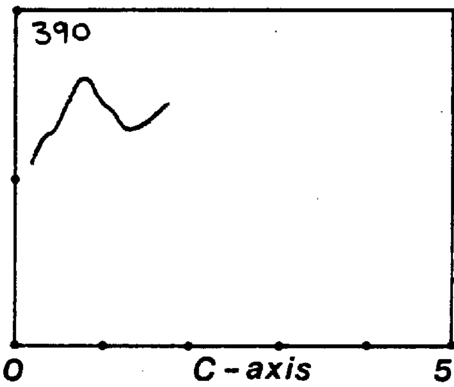
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBT

F



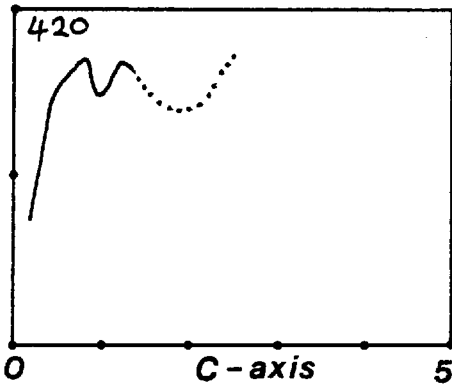
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBT

G



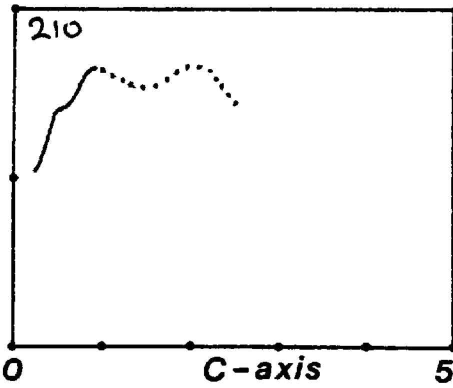
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBT

H



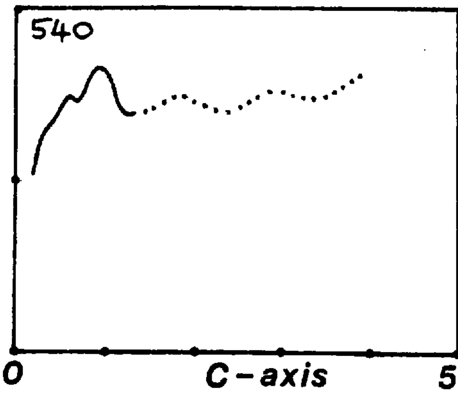
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBF

I



Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBF

J

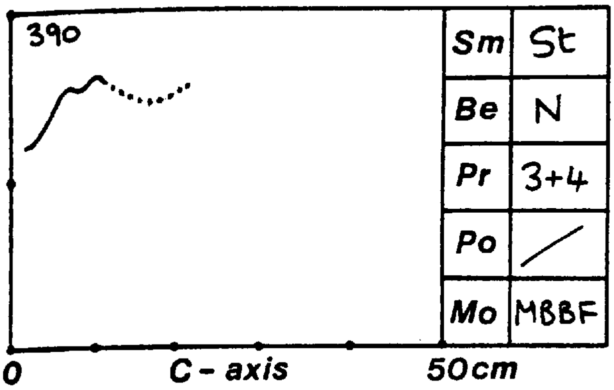


Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBF

M.P.S.

6.21 E

A



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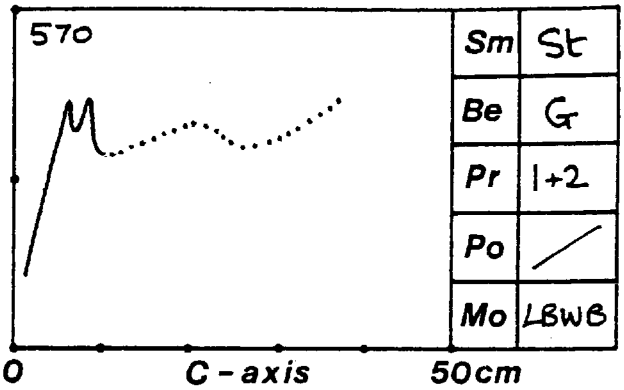
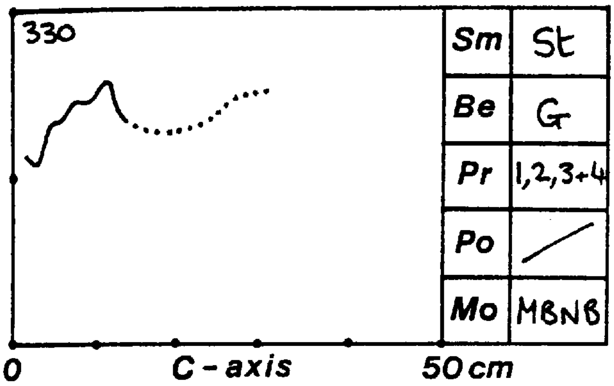
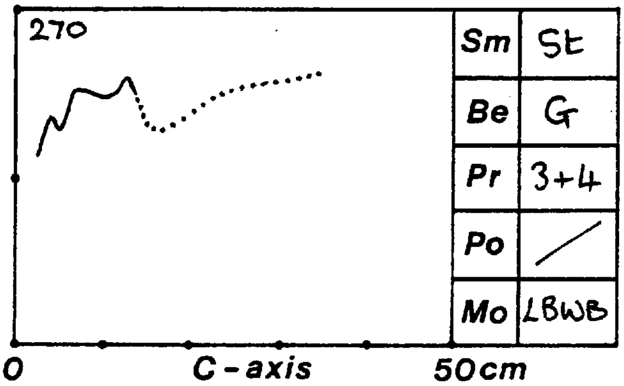


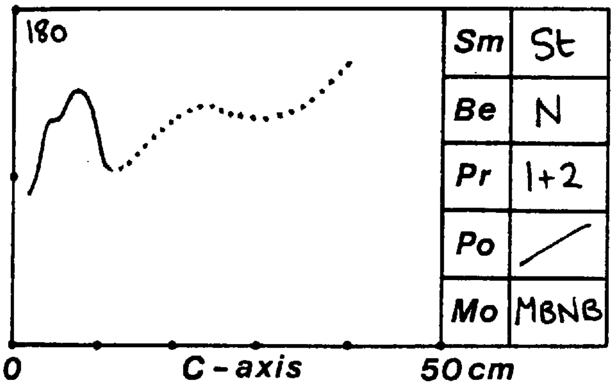
B



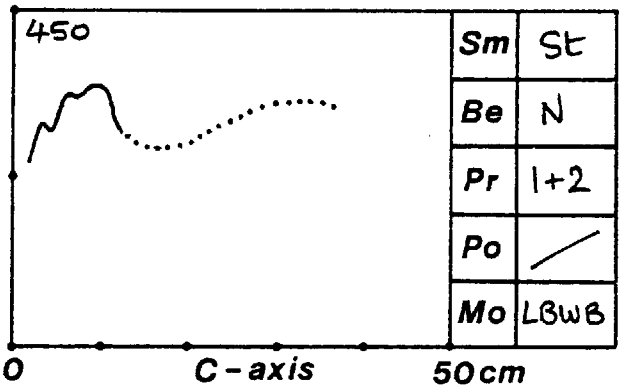
G



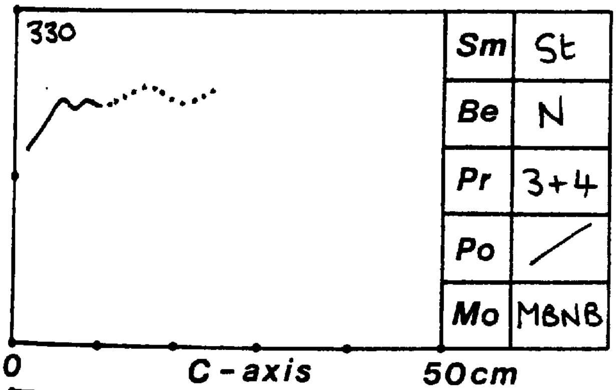
C



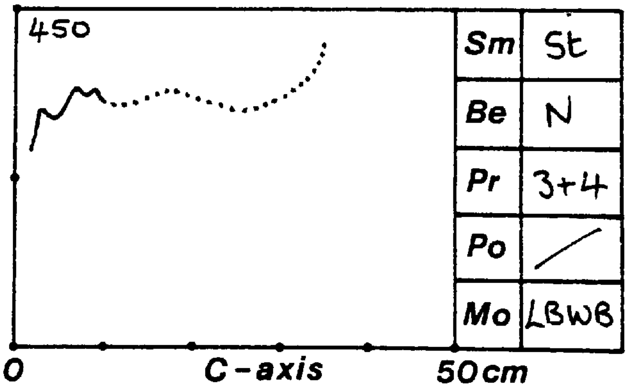
H



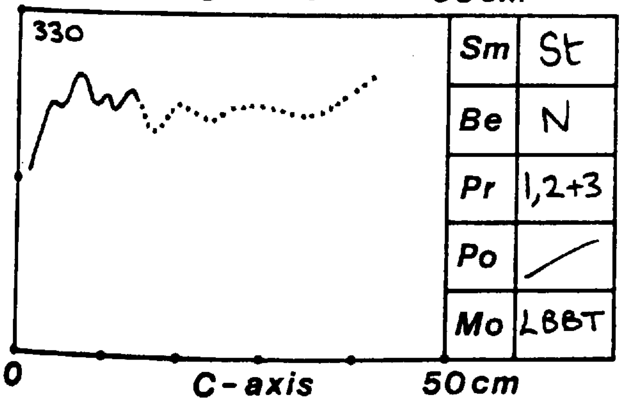
D



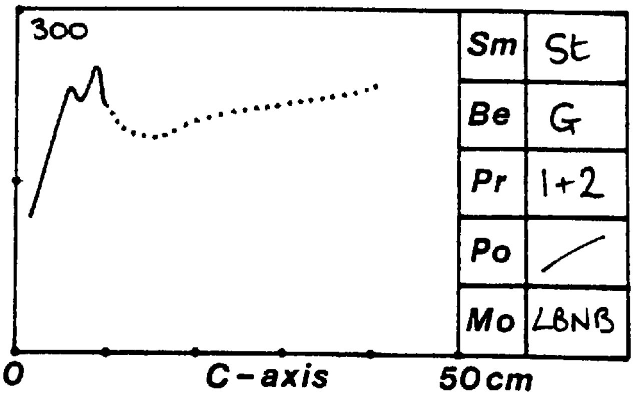
I



E

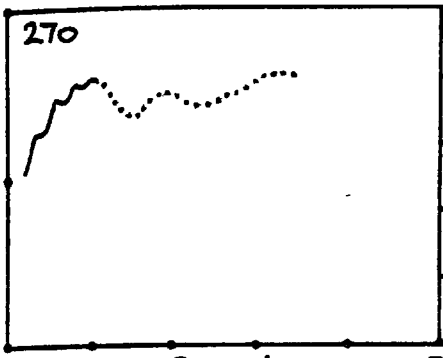


J



M.P.S.

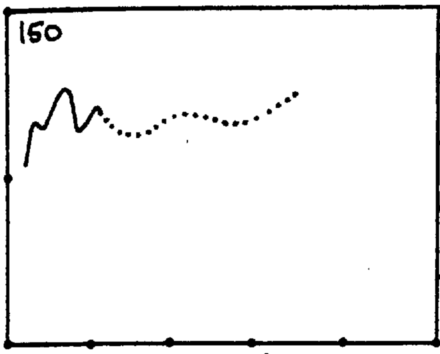
A



0 C-axis 50cm

Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBNB

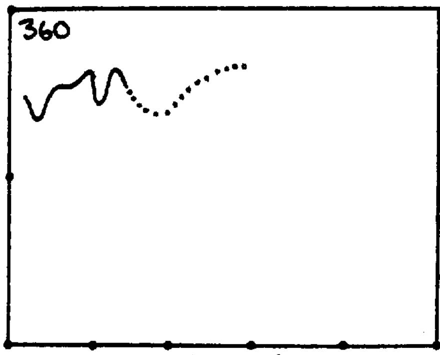
B



0 C-axis 50cm

Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBNB

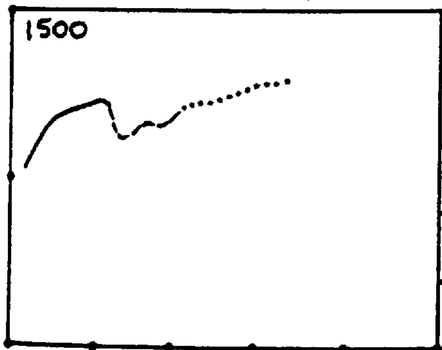
C



0 C-axis 50cm

Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBNB

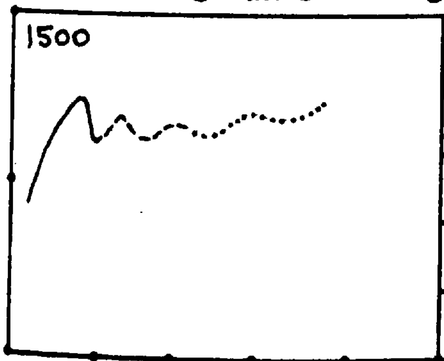
D



0 C-axis 50cm

Sm	Gr
Be	G(1)
Pr	All
Po	All
Mo	/

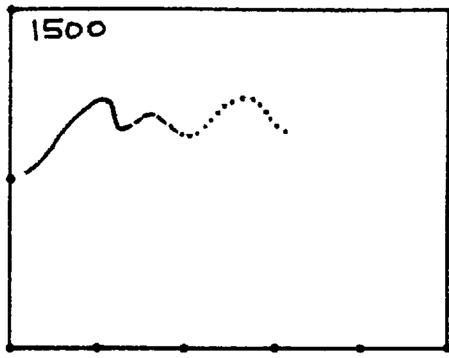
E



0 C-axis 50cm

Sm	Gr
Be	G(2)
Pr	All
Po	All
Mo	/

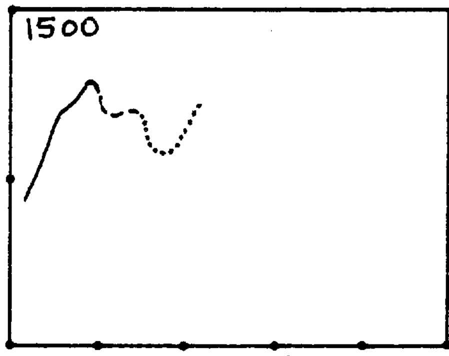
F



0 C-axis 50cm

Sm	Gr
Be	N(1)
Pr	All
Po	All
Mo	/

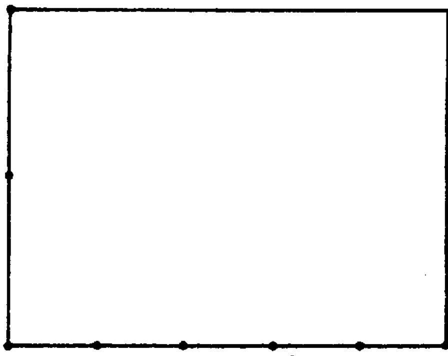
G



0 C-axis 50cm

Sm	Gr
Be	N(2)
Pr	All
Po	All
Mo	/

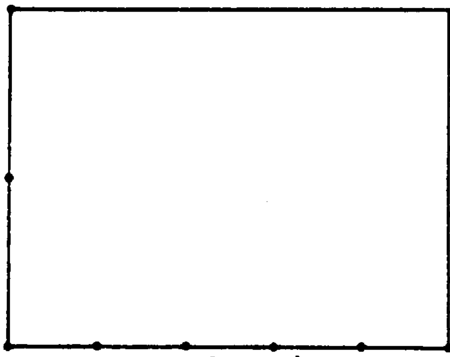
H



0 C-axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

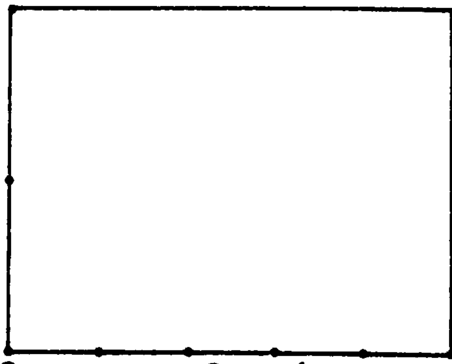
I



0 C-axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

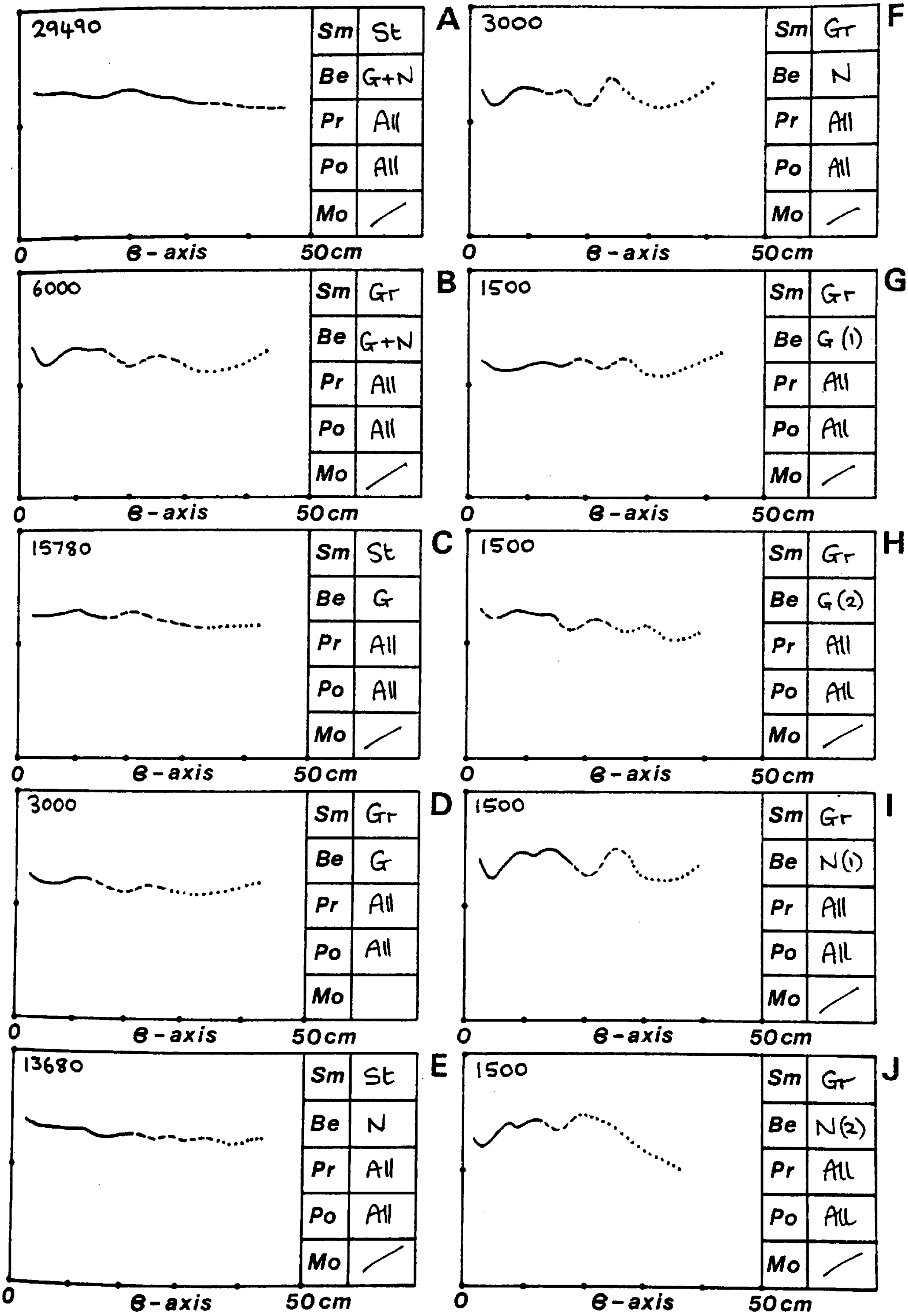
J



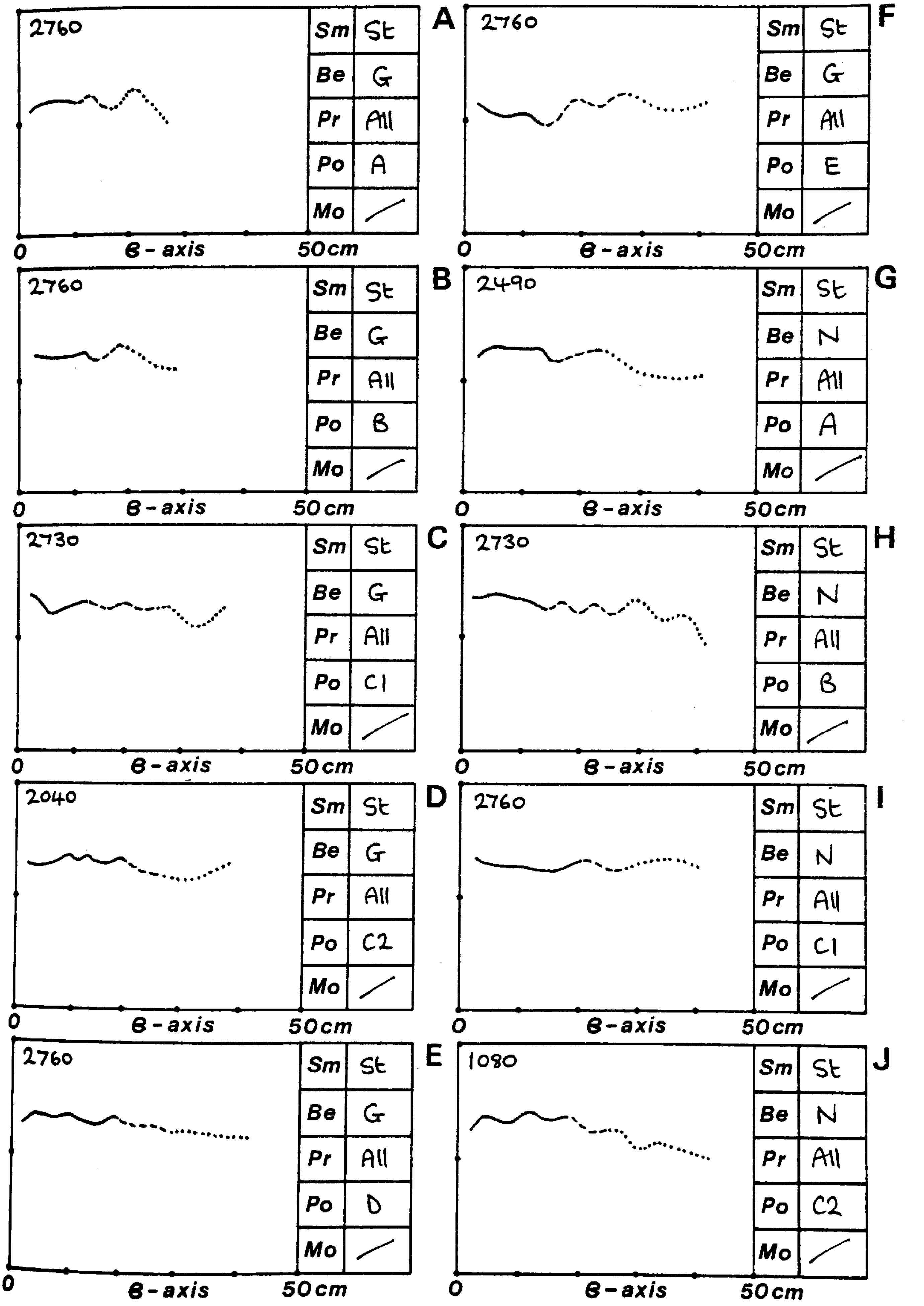
0 C-axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

M.P.S.

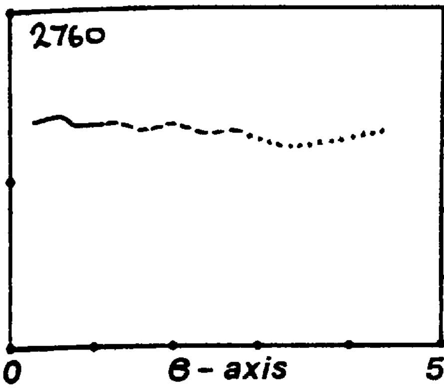

A
29490
Sm St
Be G+N
Pr All
Po All
Mo
0 B - axis 50cm
B
6000
Sm Gr
Be G+N
Pr All
Po All
Mo
0 B - axis 50cm
C
15780
Sm St
Be G
Pr All
Po All
Mo
0 B - axis 50cm
D
3000
Sm Gr
Be G
Pr All
Po All
Mo
0 B - axis 50cm
E
13680
Sm St
Be N
Pr All
Po All
Mo
0 B - axis 50cm
F
3000
Sm Gr
Be N
Pr All
Po All
Mo
0 B - axis 50cm
G
1500
Sm Gr
Be G (1)
Pr All
Po All
Mo
0 B - axis 50cm
H
1500
Sm Gr
Be G (2)
Pr All
Po All
Mo
0 B - axis 50cm
I
1500
Sm Gr
Be N(1)
Pr All
Po All
Mo
0 B - axis 50cm
J
1500
Sm Gr
Be N(2)
Pr All
Po All
Mo
0 B - axis 50cm

M.P.S.


A
2760
Sm St
Be G
Pr All
Po A
Mo
0 B - axis 50cm
B
2760
Sm St
Be G
Pr All
Po B
Mo
0 B - axis 50cm
C
2730
Sm St
Be G
Pr All
Po C1
Mo
0 B - axis 50cm
D
2040
Sm St
Be G
Pr All
Po C2
Mo
0 B - axis 50cm
E
2760
Sm St
Be G
Pr All
Po D
Mo
0 B - axis 50cm
F
2760
Sm St
Be G
Pr All
Po E
Mo
0 B - axis 50cm
G
2490
Sm St
Be N
Pr All
Po A
Mo
0 B - axis 50cm
H
2730
Sm St
Be N
Pr All
Po B
Mo
0 B - axis 50cm
I
2760
Sm St
Be N
Pr All
Po C1
Mo
0 B - axis 50cm
J
1080
Sm St
Be N
Pr All
Po C2
Mo
0 B - axis 50cm

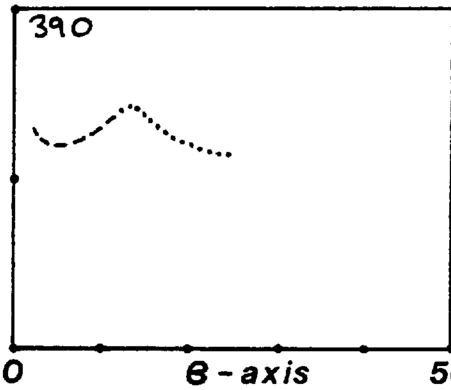
M.P.S.

A



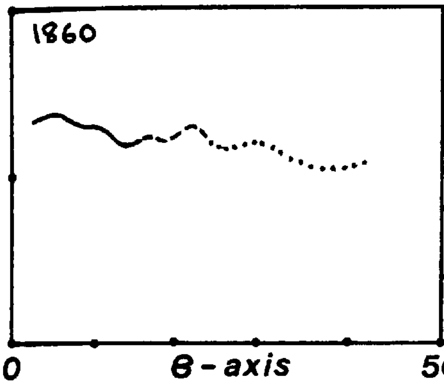
Sm	St
Be	N
Pr	All
Po	D
Mo	/

F



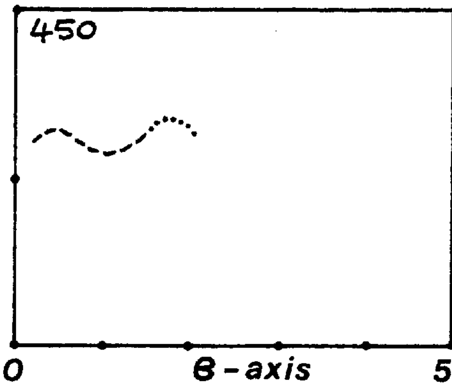
Sm	St
Be	G
Pr	1+2
Po	/
Mo	UBNB

B



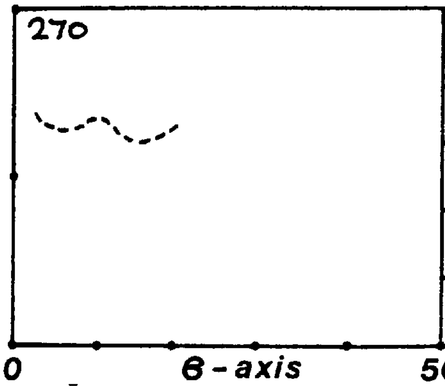
Sm	St
Be	N
Pr	All
Po	E
Mo	/

G



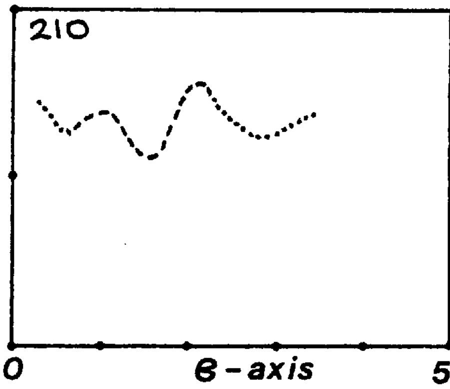
Sm	St
Be	G
Pr	3+4
Po	/
Mo	UBNB

C



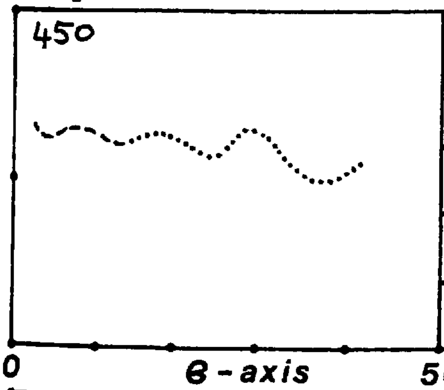
Sm	St
Be	G
Pr	1
Po	/
Mo	UBBT

H



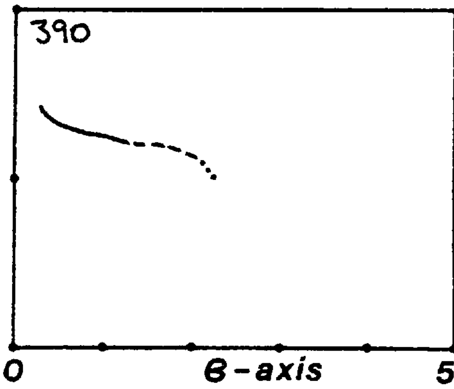
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBNB

D



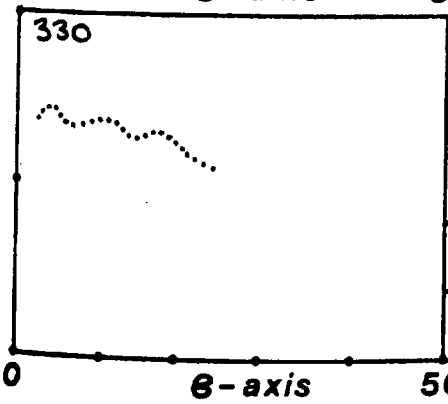
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBBT

I



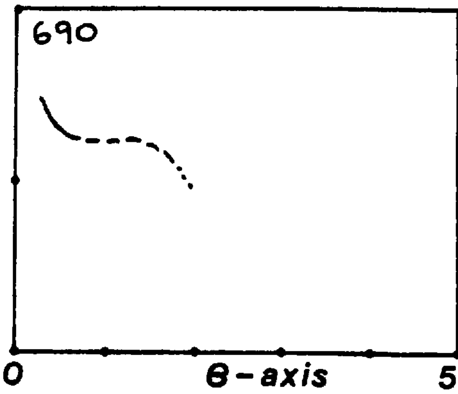
Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBNB

E



Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBBT

J

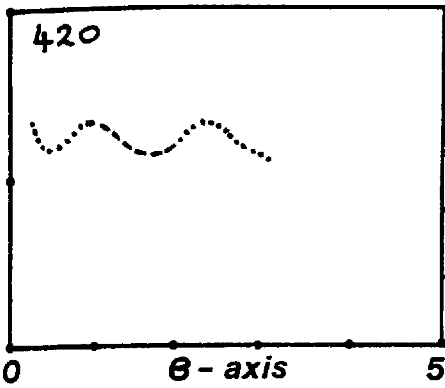


Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBT

6.21 J

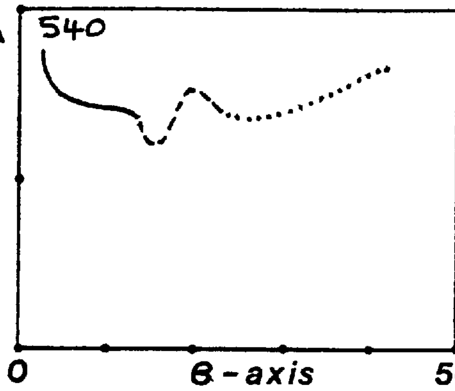
M.P.S.

A



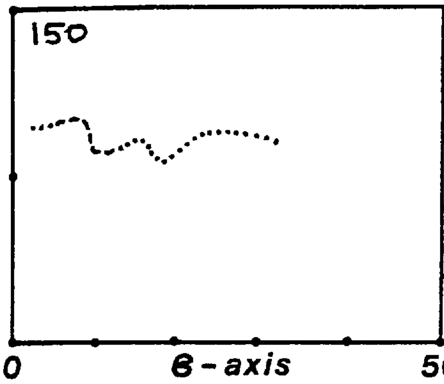
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBT

F



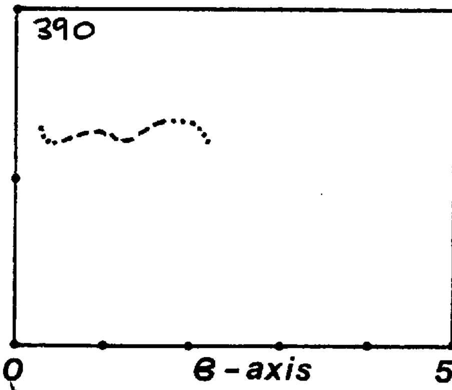
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBF

B



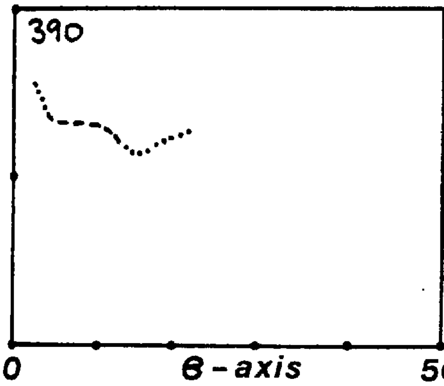
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBT

G



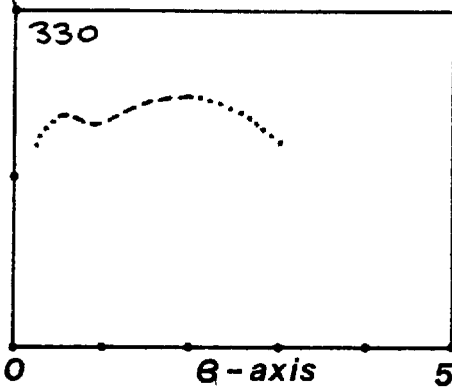
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBF

C



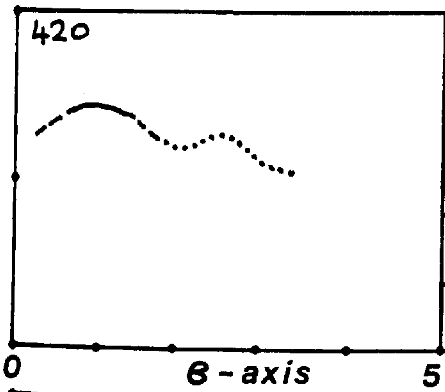
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBT

H



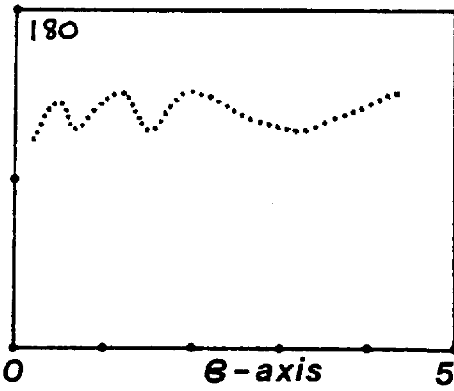
Sm	St
Be	G
Pr	1,2,3+4
Po	/
Mo	MBNB

D



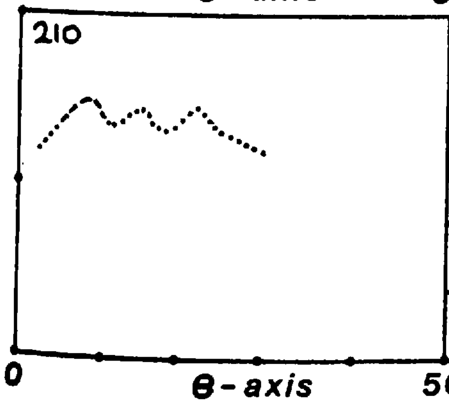
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBF

I



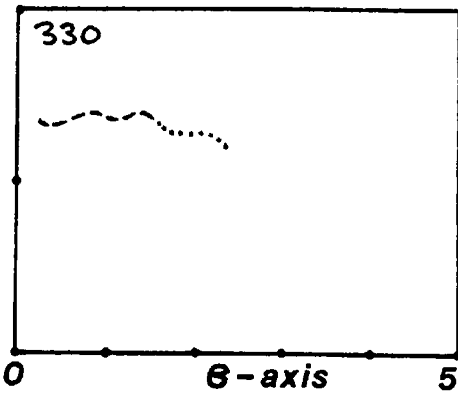
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBNB

E



Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBF

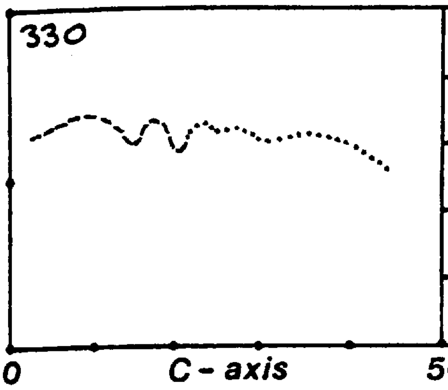
J



Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBNB

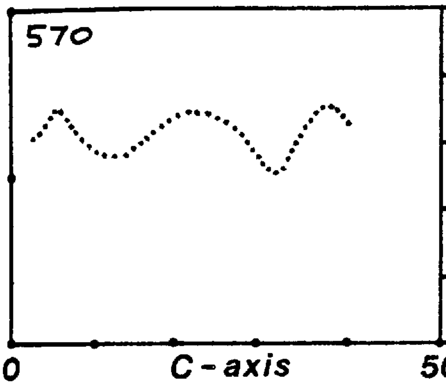
M.P.S.

A



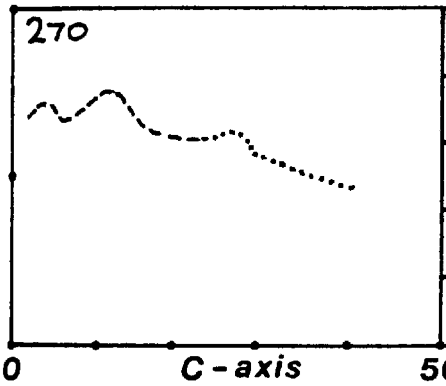
Sm	St
Be	N
Pr	1,2,3
Po	/
Mo	LBBT

B



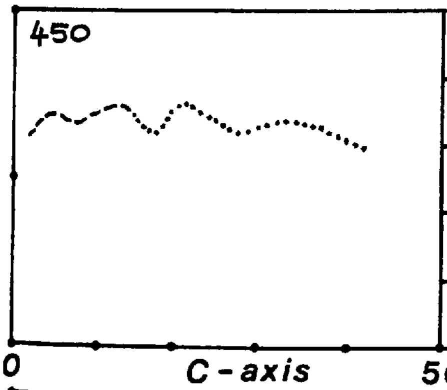
Sm	St
Be	G
Pr	1+2
Po	/
Mo	LBWB

C



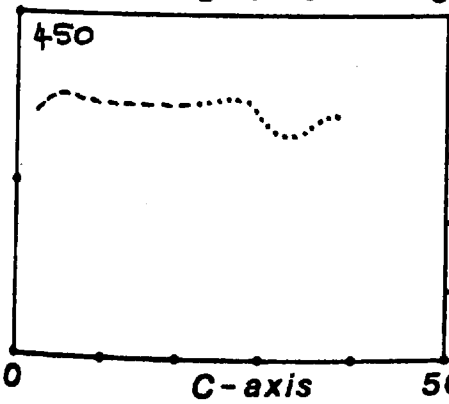
Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBWB

D



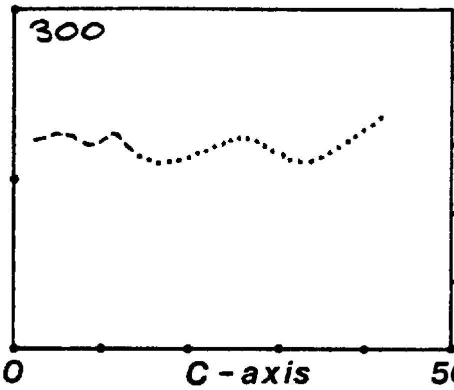
Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBWB

E



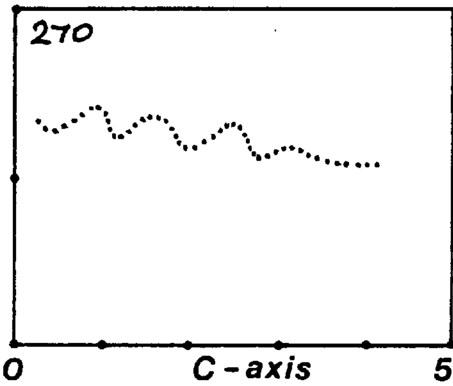
Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBWB

F



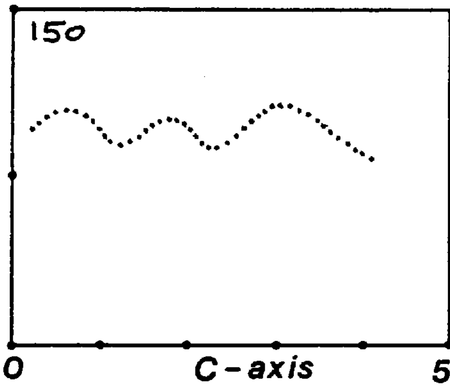
Sm	St
Be	G
Pr	1+2
Po	/
Mo	LBNB

G



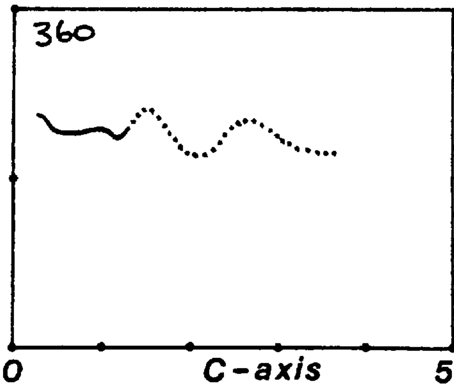
Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBNB

H



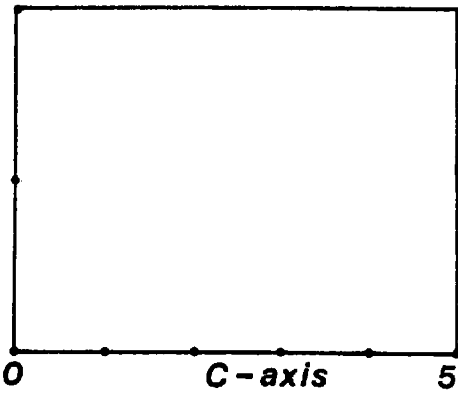
Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBNB

I



Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBNB

J

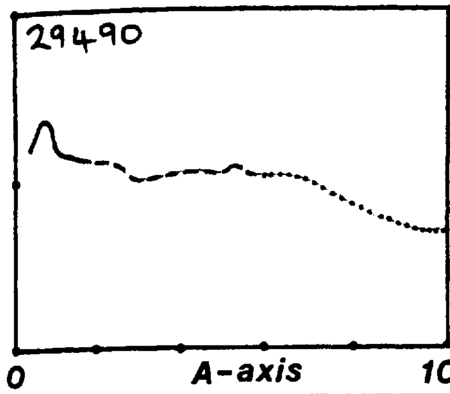


Sm	
Be	
Pr	
Po	
Mo	

M.P.S.

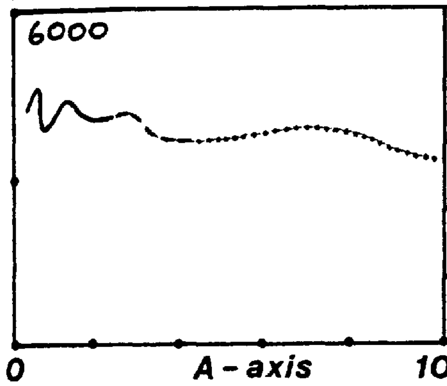
6.21 L

A



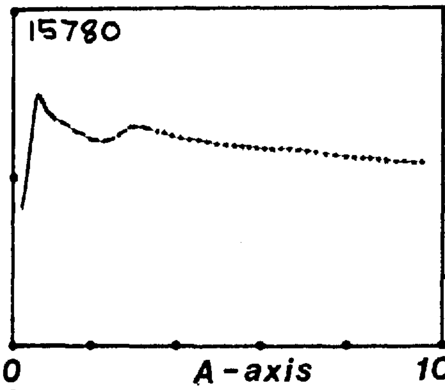
Sm	St
Be	G+N
Pr	All
Po	All
Mo	

B



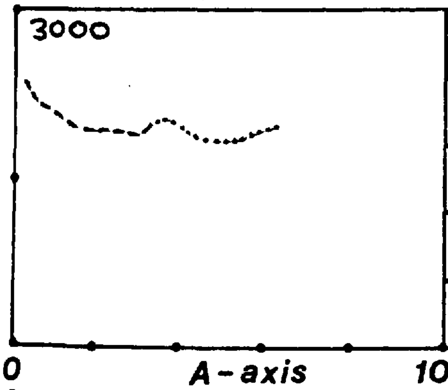
Sm	Gr
Be	G+N
Pr	All
Po	All
Mo	

C



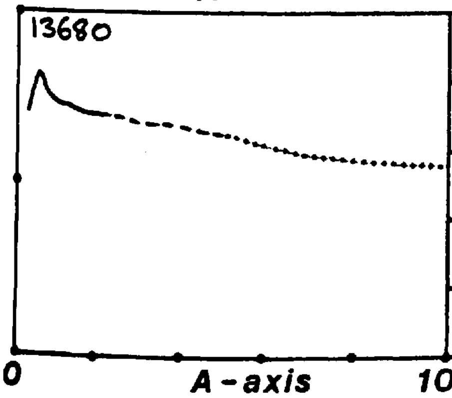
Sm	St
Be	G
Pr	All
Po	All
Mo	

D



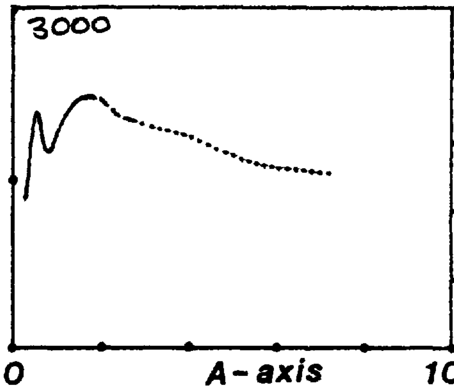
Sm	Gr
Be	G
Pr	All
Po	All
Mo	

E



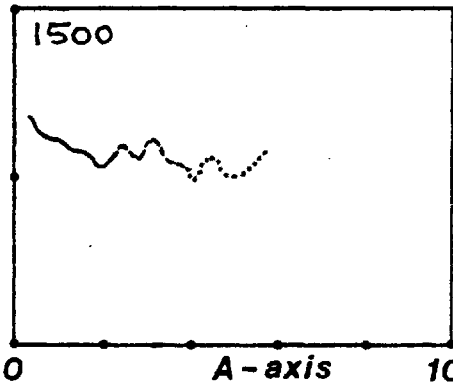
Sm	St
Be	N
Pr	All
Po	All
Mo	

F



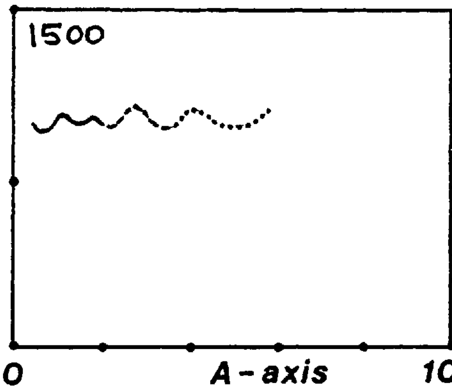
Sm	Gr
Be	N
Pr	All
Po	All
Mo	

G



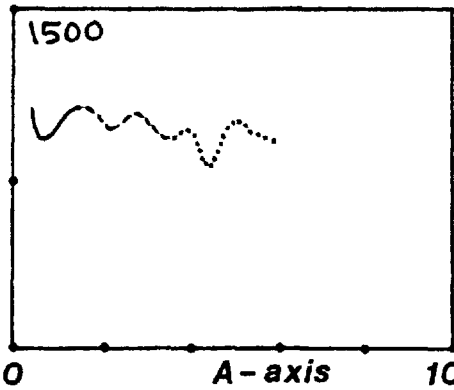
Sm	Gr
Be	G (1)
Pr	All
Po	All
Mo	

H



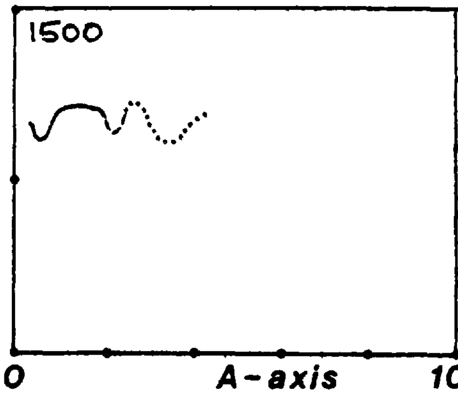
Sm	Gr
Be	G (2)
Pr	All
Po	All
Mo	

I



Sm	Gr
Be	N(1)
Pr	All
Po	All
Mo	

J



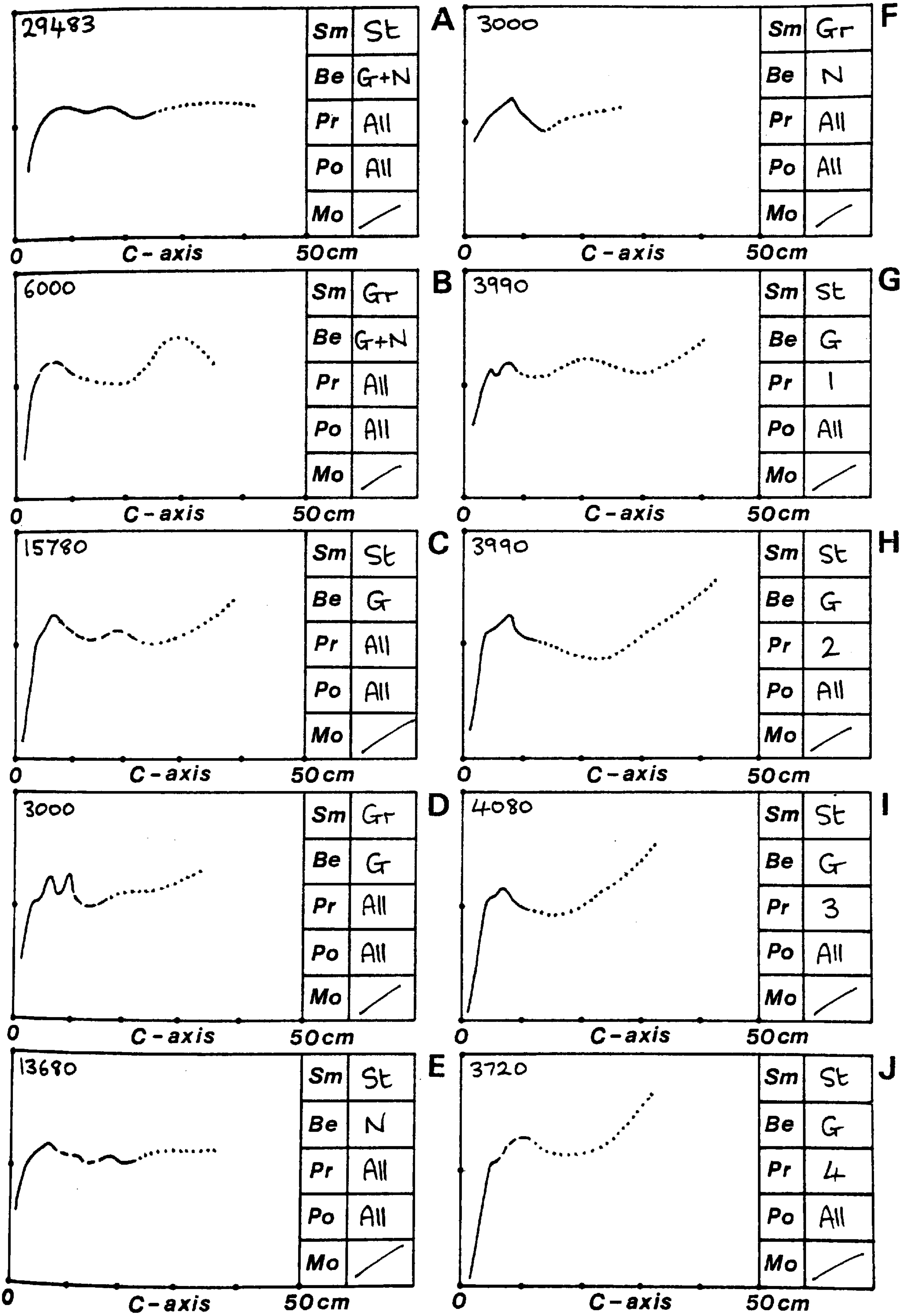
Sm	Gr
Be	N(2)
Pr	All
Po	All
Mo	

FIGURES 6.22AA-LJ OBLATE-PROLATE INDEX (OPI) CURVES

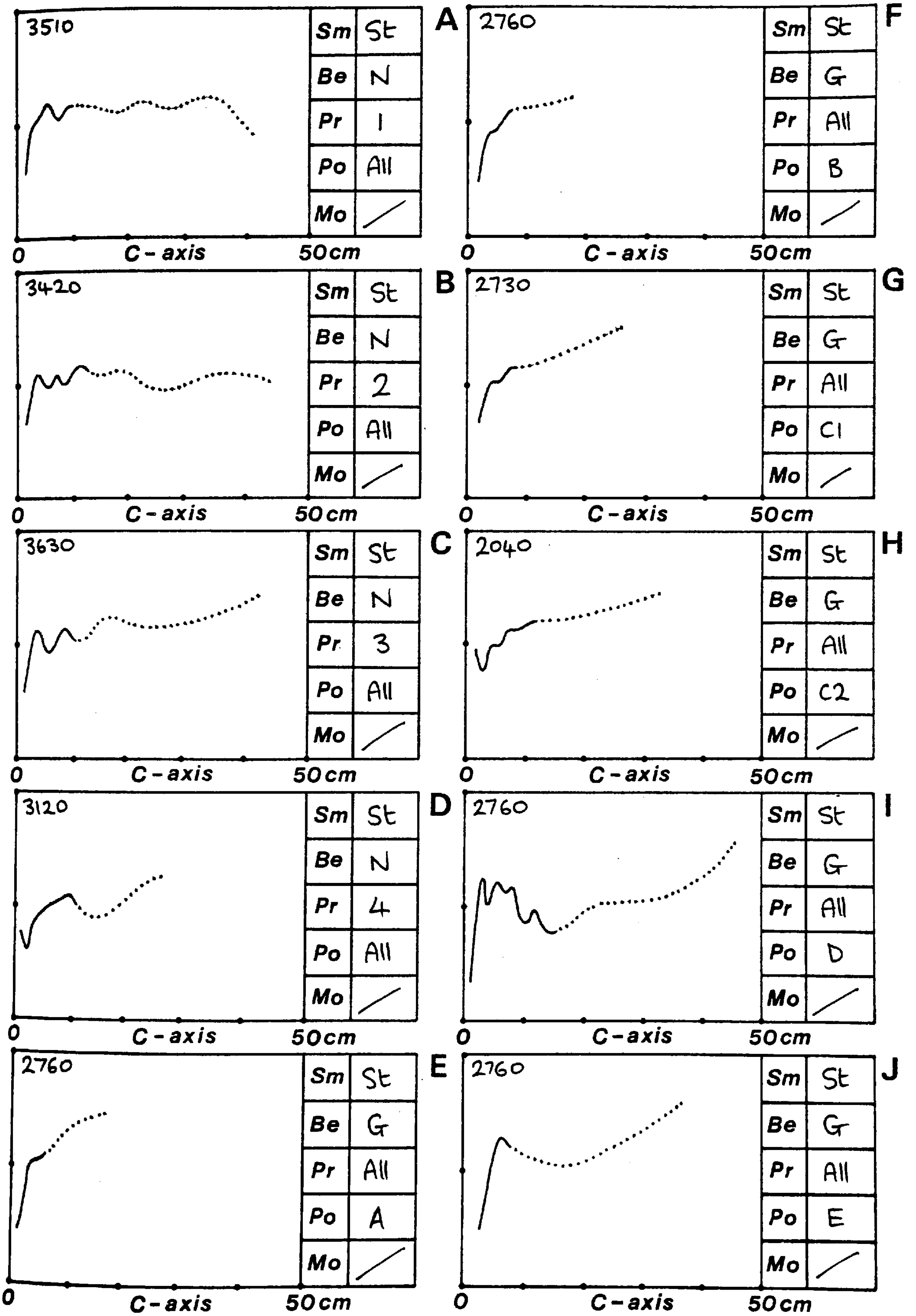
These have been constructed according to the procedure outlined in section 6.2.3 of the text. The following information is contained on each diagram: The sample size is indicated at the top. The size parameter chosen to represent particle size (in cm) is indicated on the horizontal axis. The vertical axis is not labelled but runs in all cases from -10.0 (oblate) at the origin, to +10.0 (prolate). The line illustrates how OPI changes as particle size increases.

The sample itself can be identified from the code used on the righthand side of each diagram: St or Gr indicates standard or grid sampling (Sm). G or N signifies the beach (Be). The next box down indicates the cross-section (Pr) number from which the samples were taken. That below indicates the sampling point (Po) from which the samples were taken. The last box indicates (where appropriate) what morphological position (Mo) the samples were taken from. For an explanation of 1. the abreviations used see section 6.8.1, 2. the types of line used see Fig: 6.24.
N.B. Data from which these diagrams were constructed is given in Appendix 6.1.

O.P.I.

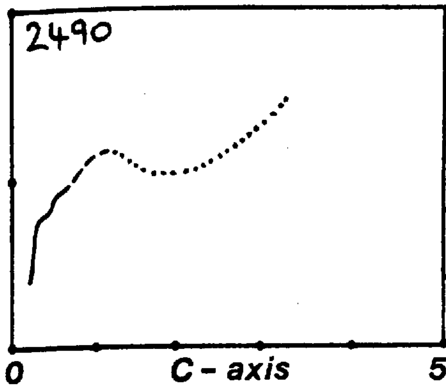

A
29483
Sm St
Be G+N
Pr All
Po All
Mo
0
C-axis
50cm
B
6000
Sm Gr
Be G+N
Pr All
Po All
Mo
0
C-axis
50cm
C
15780
Sm St
Be G
Pr All
Po All
Mo
0
C-axis
50cm
D
3000
Sm Gr
Be G
Pr All
Po All
Mo
0
C-axis
50cm
E
13680
Sm St
Be N
Pr All
Po All
Mo
0
C-axis
50cm
F
3000
Sm Gr
Be N
Pr All
Po All
Mo
0
C-axis
50cm
G
3990
Sm St
Be G
Pr 1
Po All
Mo
0
C-axis
50cm
H
3990
Sm St
Be G
Pr 2
Po All
Mo
0
C-axis
50cm
I
4080
Sm St
Be G
Pr 3
Po All
Mo
0
C-axis
50cm
J
3720
Sm St
Be G
Pr 4
Po All
Mo
0
C-axis
50cm

O.P.I.


3510
A
Sm St
Be N
Pr 1
Po All
Mo
0 C - axis 50cm
3420
B
Sm St
Be N
Pr 2
Po All
Mo
0 C - axis 50cm
3630
C
Sm St
Be N
Pr 3
Po All
Mo
0 C - axis 50cm
3120
D
Sm St
Be N
Pr 4
Po All
Mo
0 C - axis 50cm
2760
E
Sm St
Be G
Pr All
Po A
Mo
0 C - axis 50cm
2760
F
Sm St
Be G
Pr All
Po B
Mo
0 C - axis 50cm
2730
G
Sm St
Be G
Pr All
Po C1
Mo
0 C - axis 50cm
2040
H
Sm St
Be G
Pr All
Po C2
Mo
0 C - axis 50cm
2760
I
Sm St
Be G
Pr All
Po D
Mo
0 C - axis 50cm
2760
J
Sm St
Be G
Pr All
Po E
Mo
0 C - axis 50cm

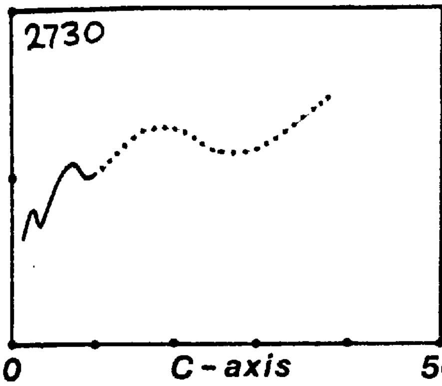
O.P.I.

A



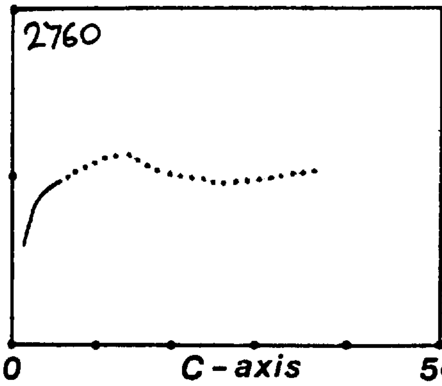
Sm	St
Be	N
Pr	All
Po	A
Mo	

B



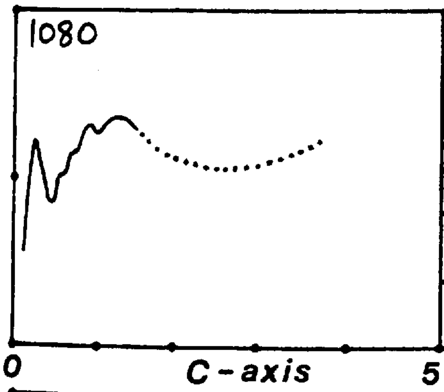
Sm	St
Be	N
Pr	All
Po	B
Mo	

C



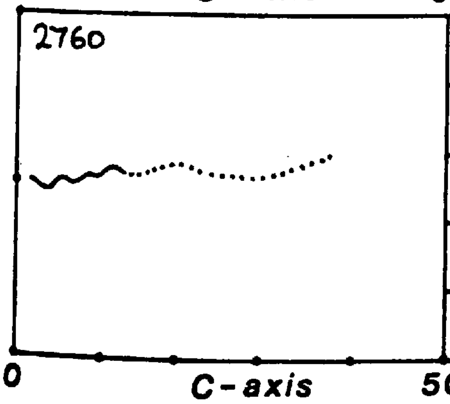
Sm	St
Be	N
Pr	All
Po	C1
Mo	

D



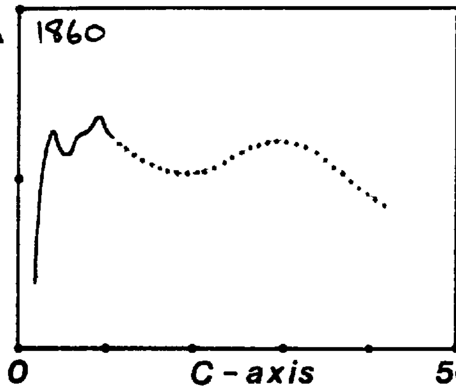
Sm	St
Be	N
Pr	All
Po	C2
Mo	

E



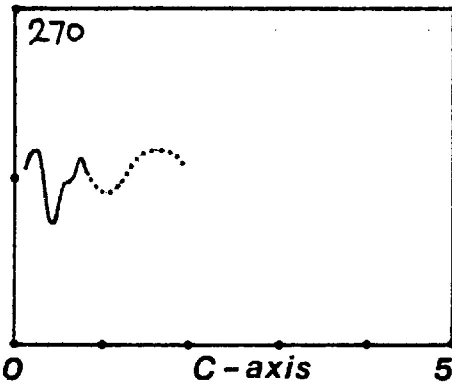
Sm	St
Be	N
Pr	All
Po	D
Mo	

F



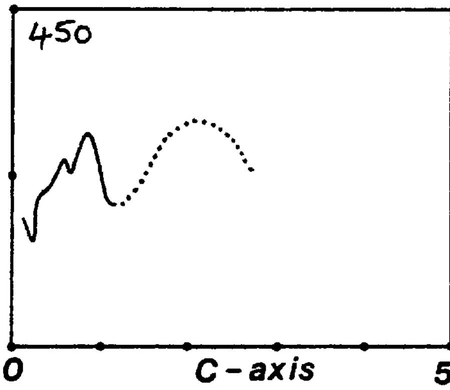
Sm	St
Be	N
Pr	All
Po	E
Mo	

G



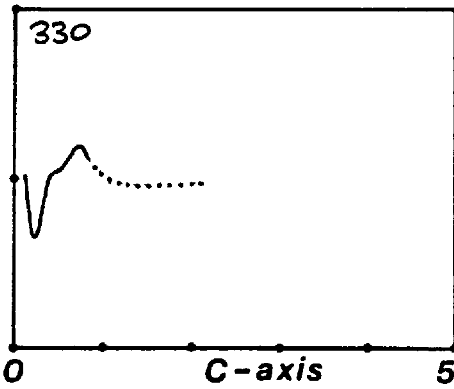
Sm	St
Be	G
Pr	1
Po	
Mo	UBBT

H



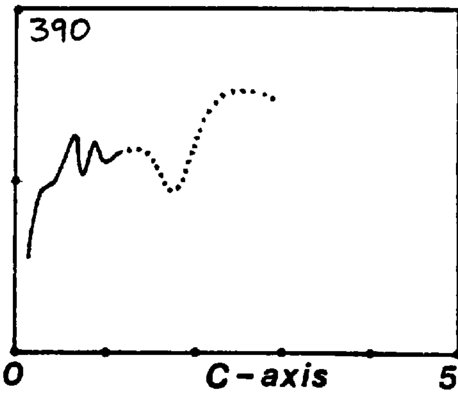
Sm	St
Be	N
Pr	1+2
Po	
Mo	UBBT

I



Sm	St
Be	N
Pr	3+4
Po	
Mo	UBBT

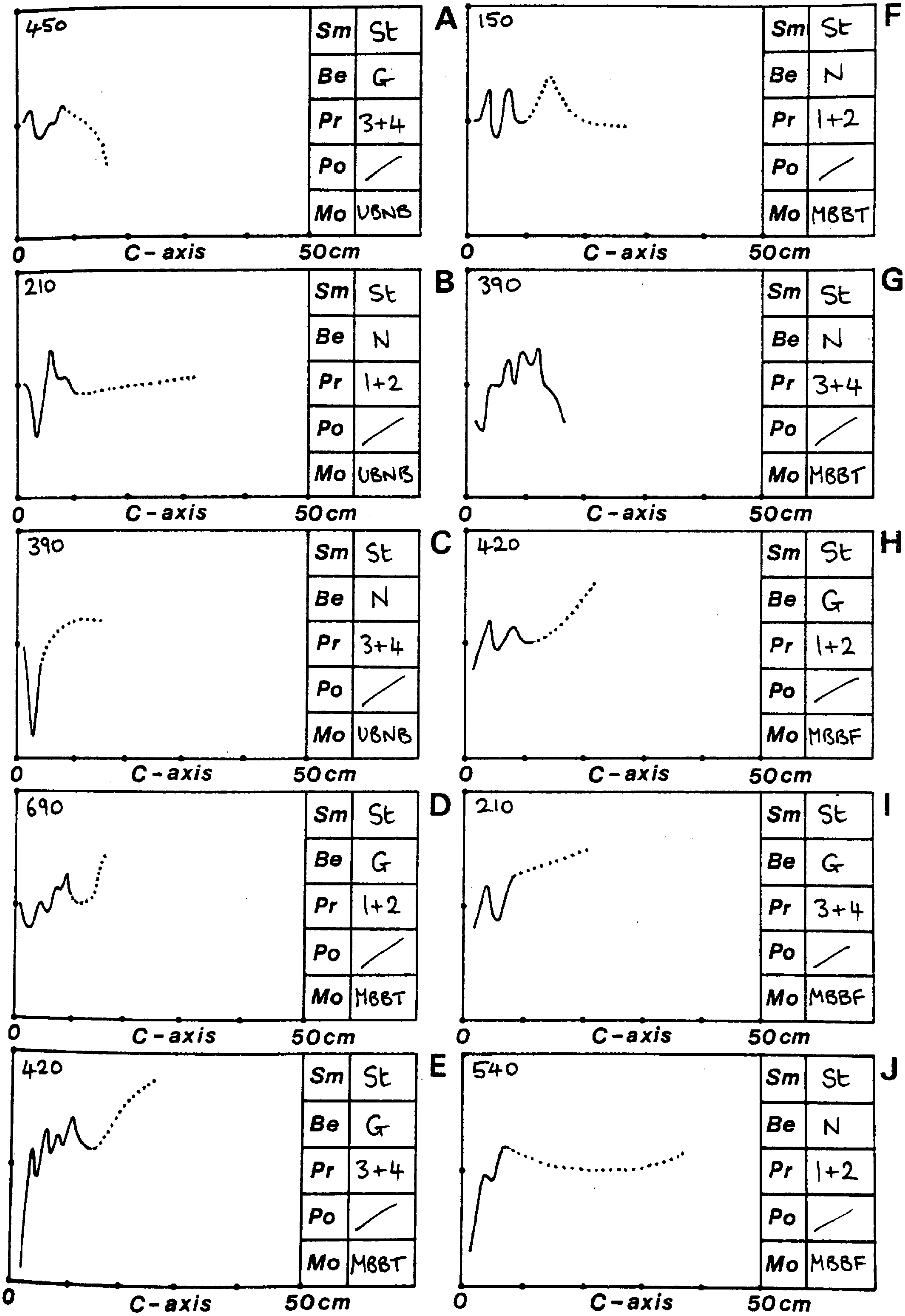
J



Sm	St
Be	G
Pr	1+2
Po	
Mo	UBNB

O.P.I.

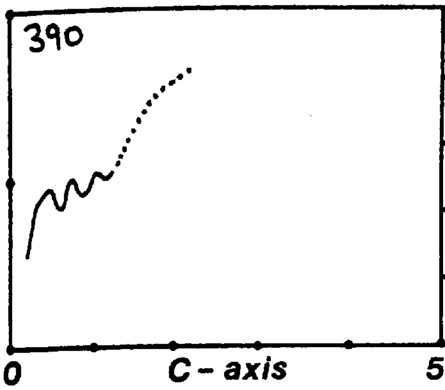
6.22 (D)



A
450
Sm St
Be G
Pr 3+4
Po
Mo UBNB
0 C-axis 50cm
F
150
Sm St
Be N
Pr 1+2
Po
Mo MBBT
0 C-axis 50cm
B
210
Sm St
Be N
Pr 1+2
Po
Mo UBNB
0 C-axis 50cm
G
390
Sm St
Be N
Pr 3+4
Po
Mo MBBT
0 C-axis 50cm
C
390
Sm St
Be N
Pr 3+4
Po
Mo UBNB
0 C-axis 50cm
H
420
Sm St
Be G
Pr 1+2
Po
Mo MBBF
0 C-axis 50cm
D
690
Sm St
Be G
Pr 1+2
Po
Mo MBBT
0 C-axis 50cm
I
210
Sm St
Be G
Pr 3+4
Po
Mo MBBF
0 C-axis 50cm
E
420
Sm St
Be G
Pr 3+4
Po
Mo MBBT
0 C-axis 50cm
J
540
Sm St
Be N
Pr 1+2
Po
Mo MBBF
0 C-axis 50cm

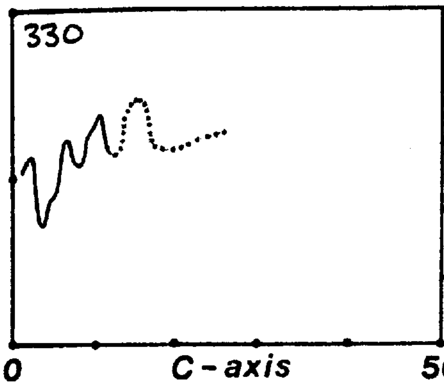
O.P.I.

6.22 E



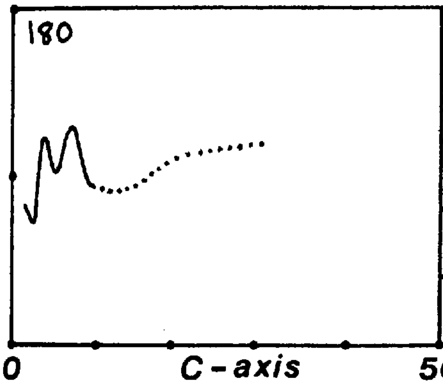
Sm	St
Be	N
Pr	3+4
Po	
Mo	MBBF

A



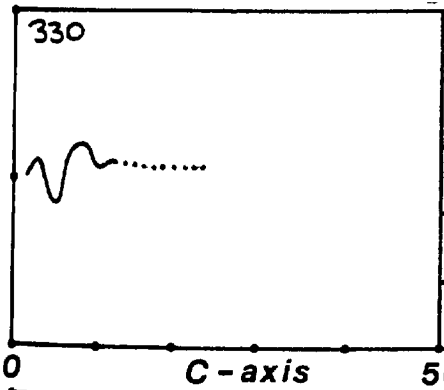
Sm	St
Be	G
Pr	1,2,3+4
Po	
Mo	MBNB

B



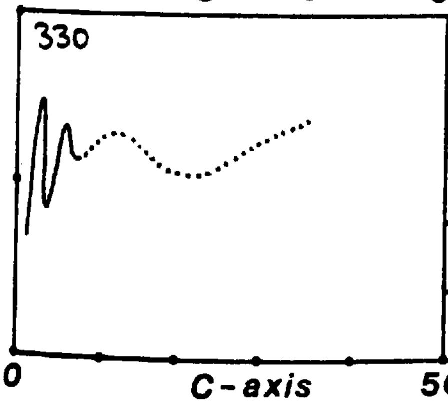
Sm	St
Be	N
Pr	1+2
Po	
Mo	MBNB

C



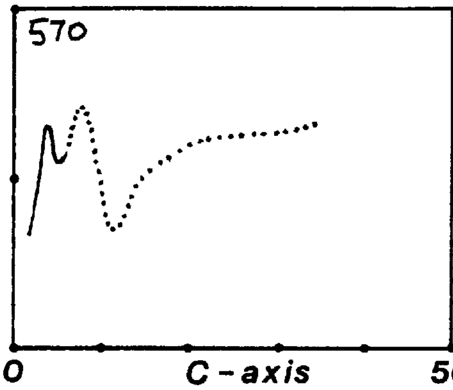
Sm	St
Be	N
Pr	3+4
Po	
Mo	MBNB

D



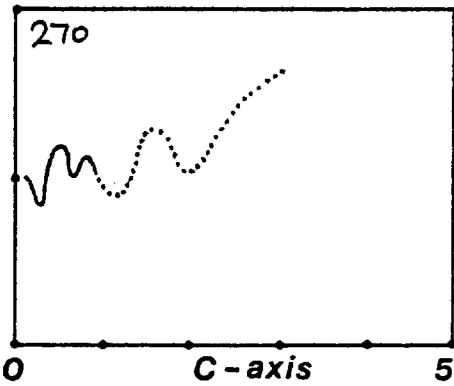
Sm	St
Be	N
Pr	1,2+3
Po	
Mo	LBBT

E



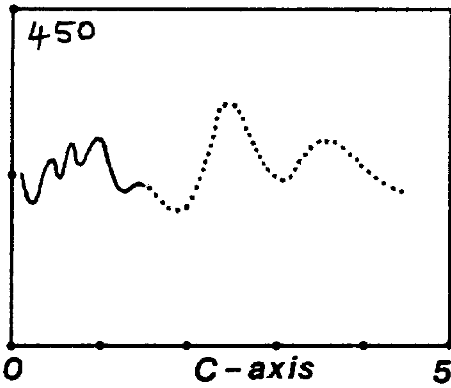
Sm	St
Be	G
Pr	1+2
Po	
Mo	LBWB

F



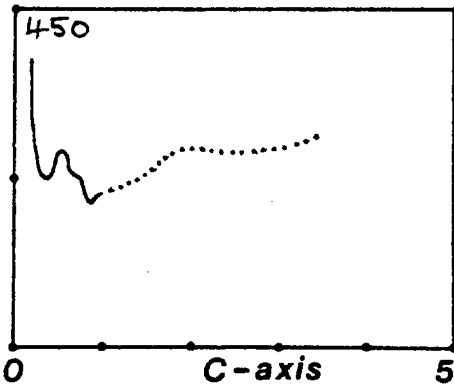
Sm	St
Be	G
Pr	3+4
Po	
Mo	LBWB

G



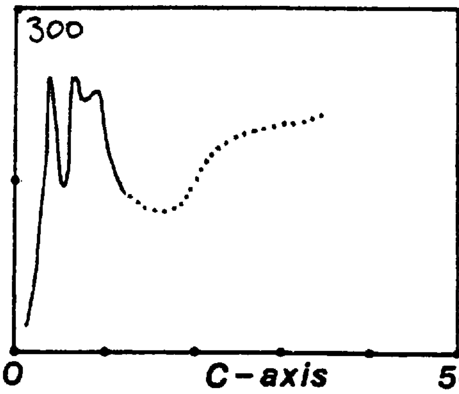
Sm	St
Be	N
Pr	1+2
Po	
Mo	LBWB

H



Sm	St
Be	N
Pr	3+4
Po	
Mo	LBWB

I

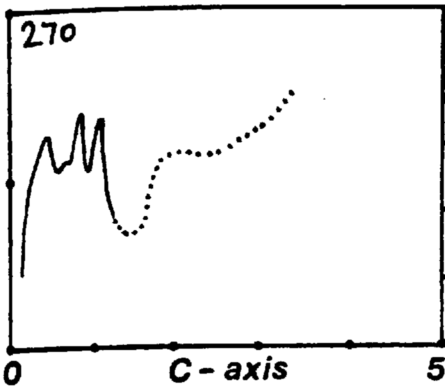


Sm	St
Be	G
Pr	1+2
Po	
Mo	LBNB

J

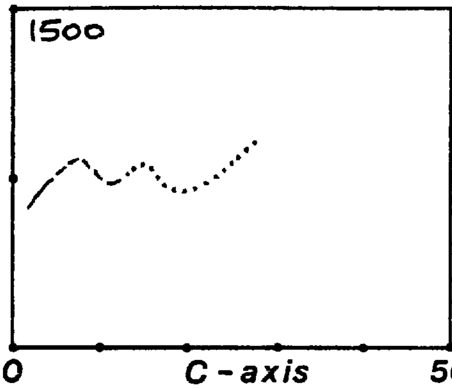
O.P.I.

A



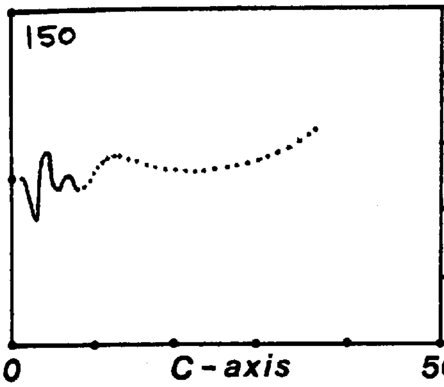
Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBNB

F



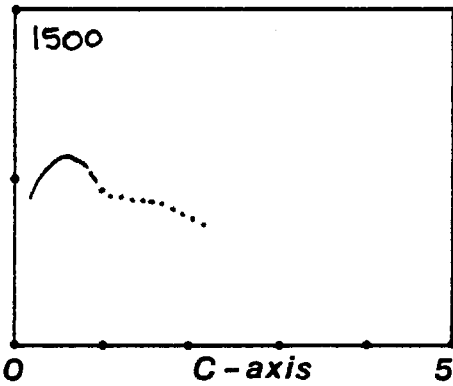
Sm	Gr
Be	N(1)
Pr	All
Po	All
Mo	/

B



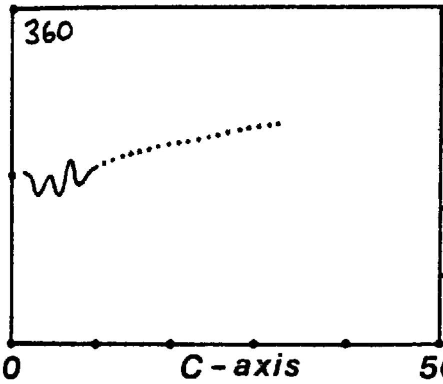
Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBNB

G



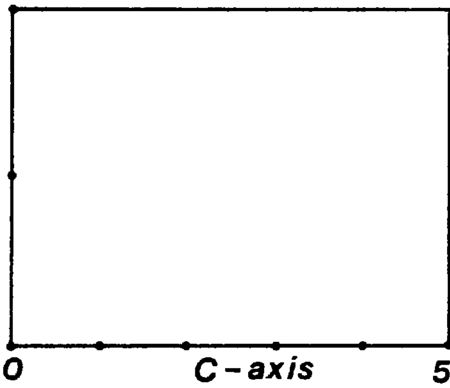
Sm	Gr
Be	N(2)
Pr	All
Po	All
Mo	/

C



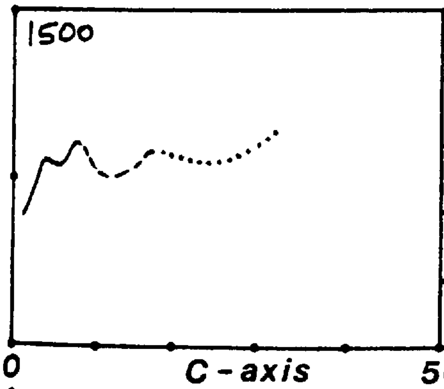
Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBNB

H



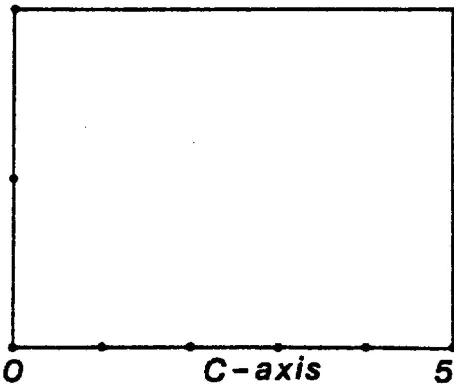
Sm	
Be	
Pr	
Po	
Mo	

D



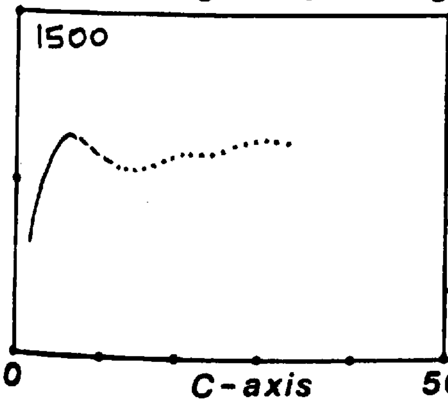
Sm	Gr
Be	G(1)
Pr	All
Po	All
Mo	/

I



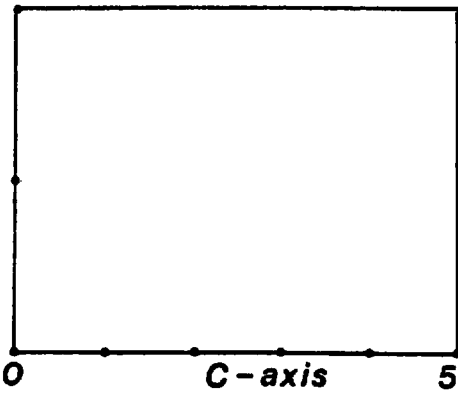
Sm	
Be	
Pr	
Po	
Mo	

E



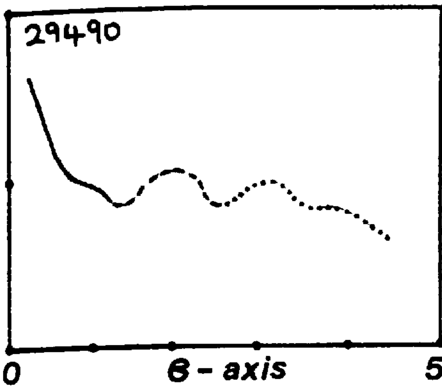
Sm	Gr
Be	G(2)
Pr	All
Po	All
Mo	/

J



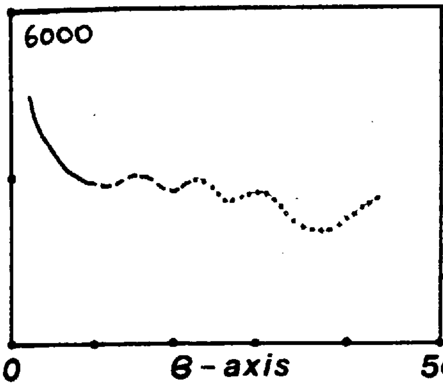
Sm	
Be	
Pr	
Po	
Mo	

O.P.I.



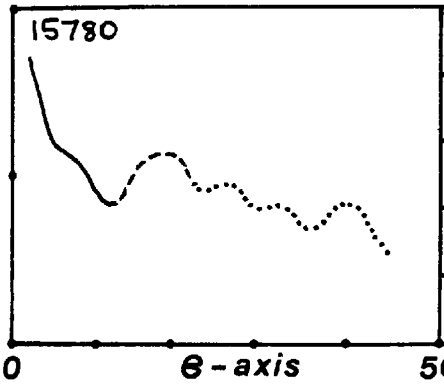
A

Sm	St
Be	G+N
Pr	All
Po	All
Mo	



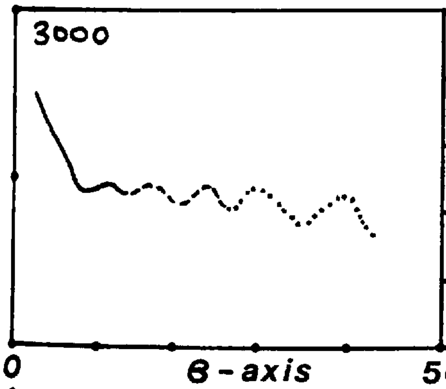
B

Sm	Gr
Be	G+N
Pr	All
Po	All
Mo	



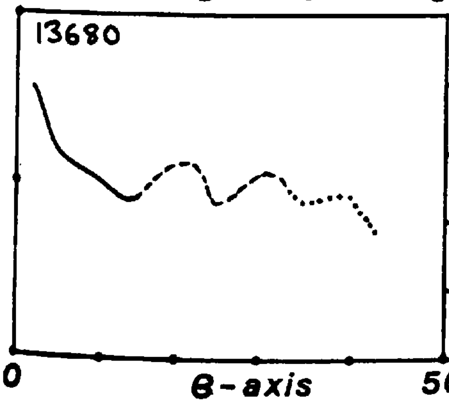
C

Sm	St
Be	G
Pr	All
Po	All
Mo	



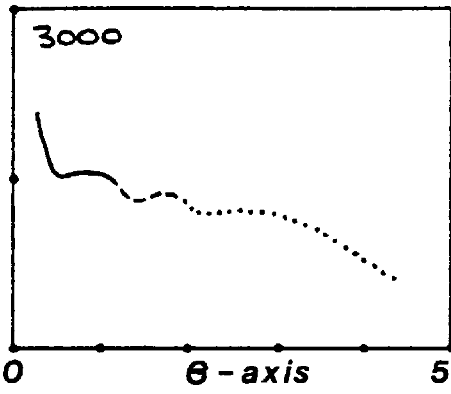
D

Sm	Gr
Be	G
Pr	All
Po	All
Mo	



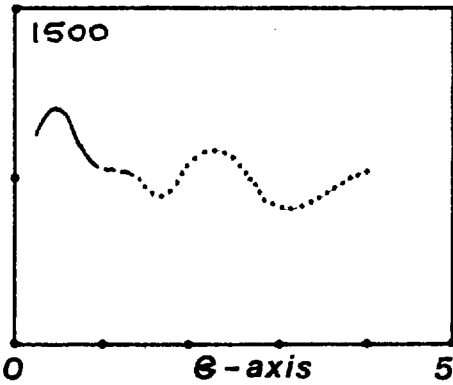
E

Sm	St
Be	N
Pr	All
Po	All
Mo	



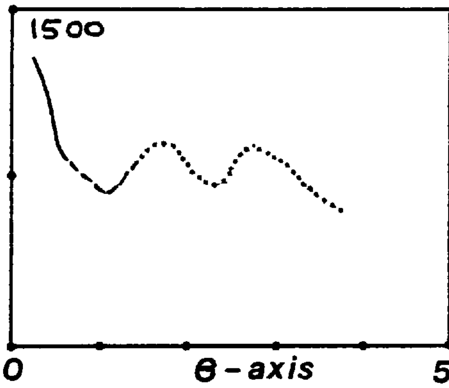
F

Sm	Gr
Be	N
Pr	All
Po	All
Mo	



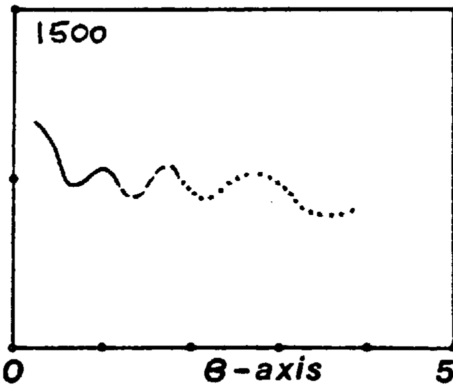
G

Sm	Gr
Be	G (1)
Pr	All
Po	All
Mo	



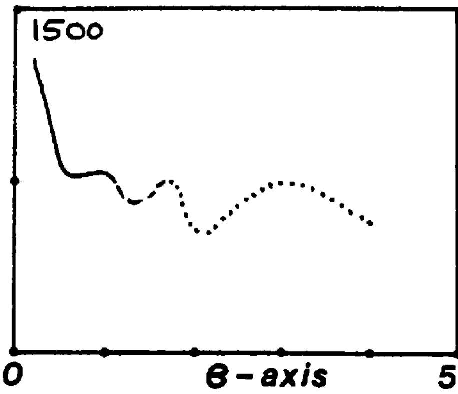
H

Sm	Gr
Be	G (2)
Pr	All
Po	All
Mo	



I

Sm	Gr
Be	N (1)
Pr	All
Po	All
Mo	

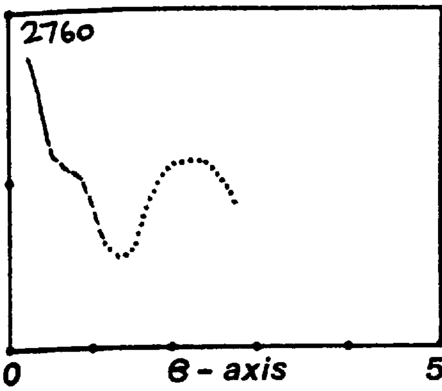


J

Sm	Gr
Be	N (2)
Pr	All
Po	All
Mo	

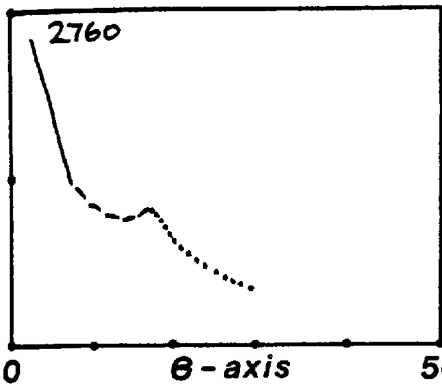
O.P.I.

A



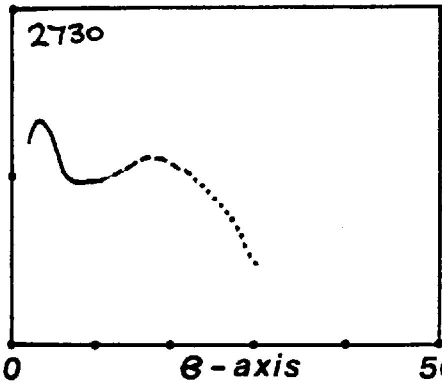
Sm	St
Be	G
Pr	All
Po	A
Mo	

B



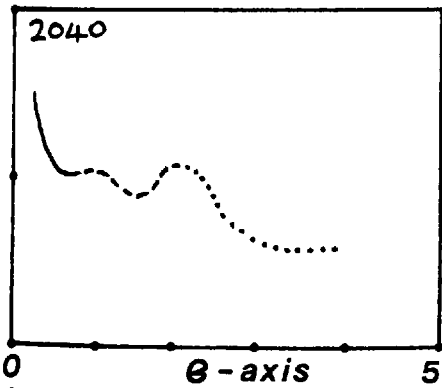
Sm	St
Be	G
Pr	All
Po	B
Mo	

C



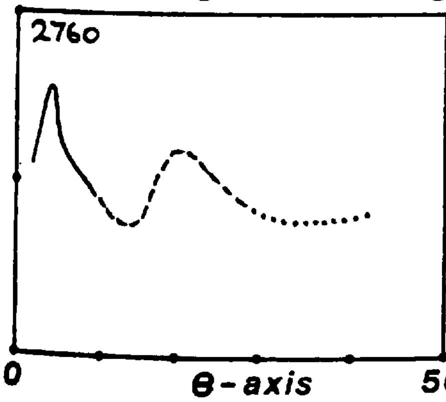
Sm	St
Be	G
Pr	All
Po	C1
Mo	

D



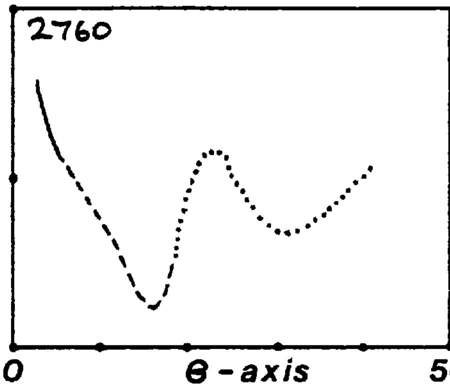
Sm	St
Be	G
Pr	All
Po	C2
Mo	

E



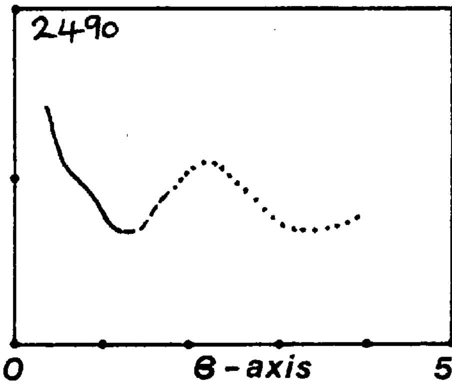
Sm	St
Be	G
Pr	All
Po	D
Mo	

F



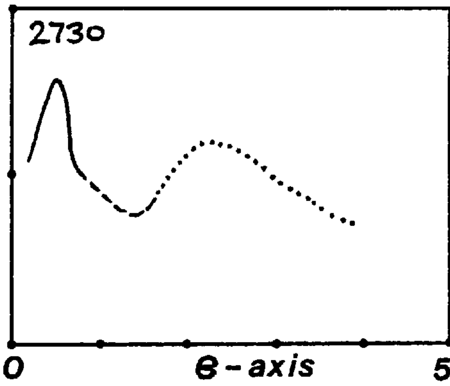
Sm	St
Be	G
Pr	All
Po	E
Mo	

G



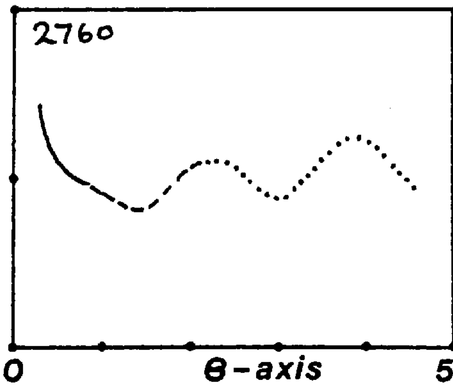
Sm	St
Be	N
Pr	All
Po	A
Mo	

H



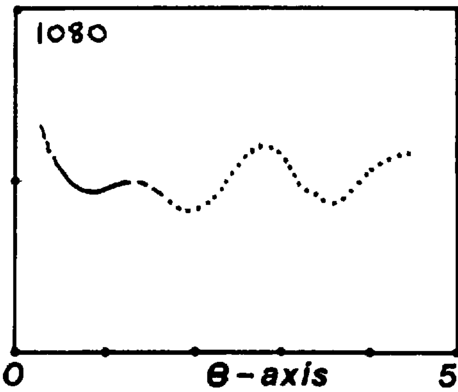
Sm	St
Be	N
Pr	All
Po	B
Mo	

I



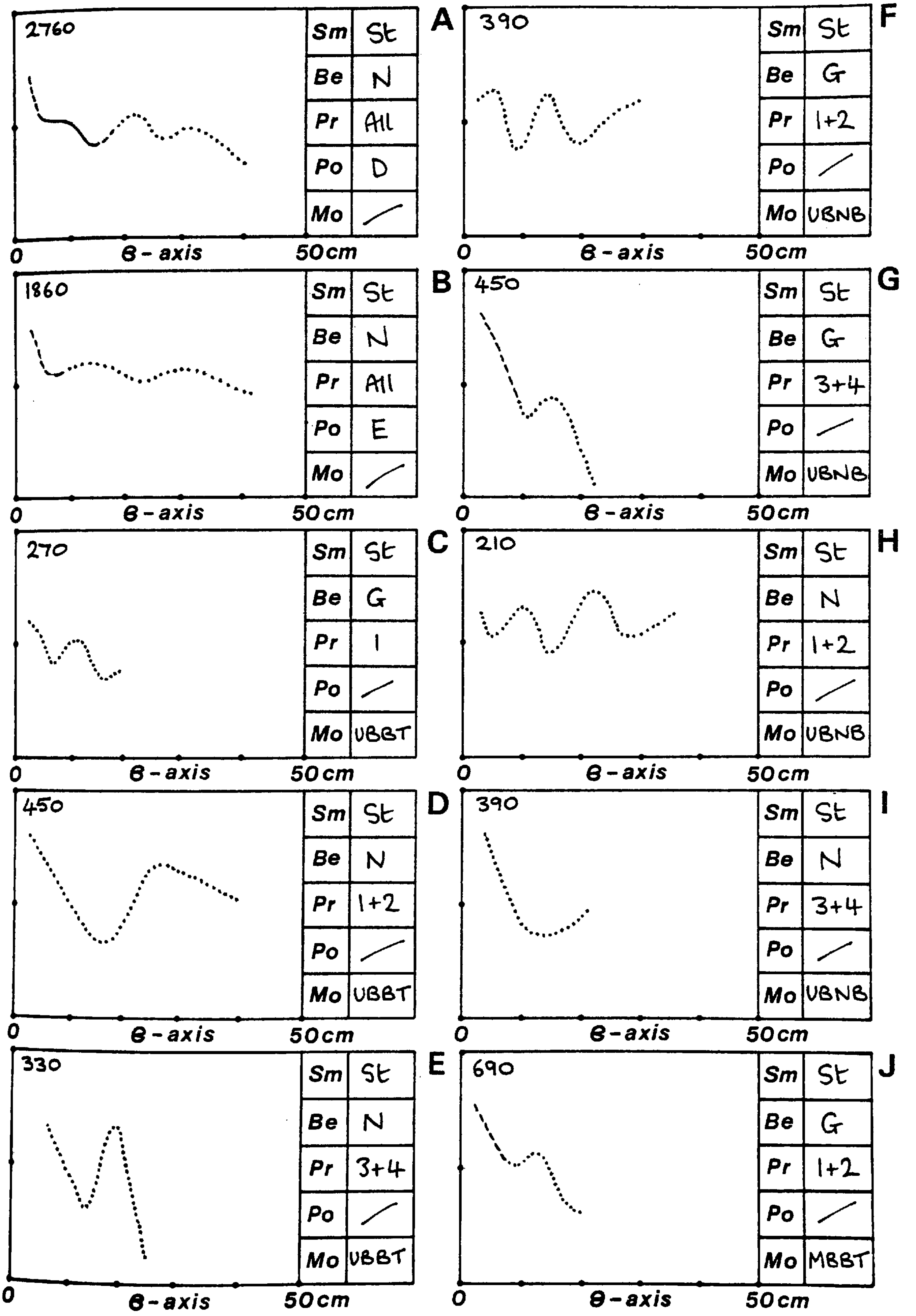
Sm	St
Be	N
Pr	All
Po	C1
Mo	

J



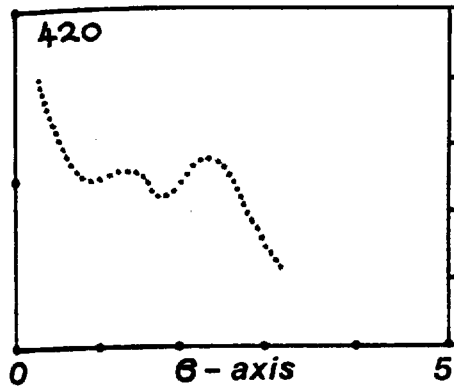
Sm	St
Be	N
Pr	All
Po	C2
Mo	

O.P.I.


A
2760
Sm St
Be N
Pr All
Po D
Mo
0 θ - axis 50cm
B
1860
Sm St
Be N
Pr All
Po E
Mo
0 θ - axis 50cm
C
270
Sm St
Be G
Pr 1
Po
Mo UBBT
0 θ - axis 50cm
D
450
Sm St
Be N
Pr 1+2
Po
Mo UBBT
0 θ - axis 50cm
E
330
Sm St
Be N
Pr 3+4
Po
Mo UBBT
0 θ - axis 50cm
F
390
Sm St
Be G
Pr 1+2
Po
Mo UBNB
0 θ - axis 50cm
G
450
Sm St
Be G
Pr 3+4
Po
Mo UBNB
0 θ - axis 50cm
H
210
Sm St
Be N
Pr 1+2
Po
Mo UBNB
0 θ - axis 50cm
I
390
Sm St
Be N
Pr 3+4
Po
Mo UBNB
0 θ - axis 50cm
J
690
Sm St
Be G
Pr 1+2
Po
Mo MBBT
0 θ - axis 50cm

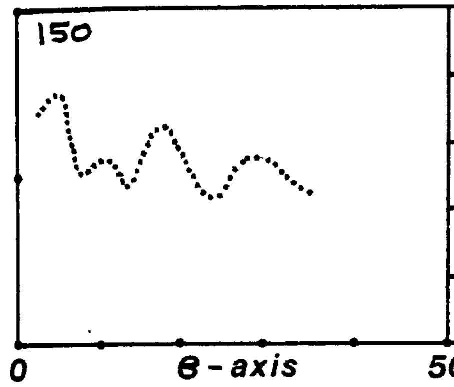
O.P.I.

A



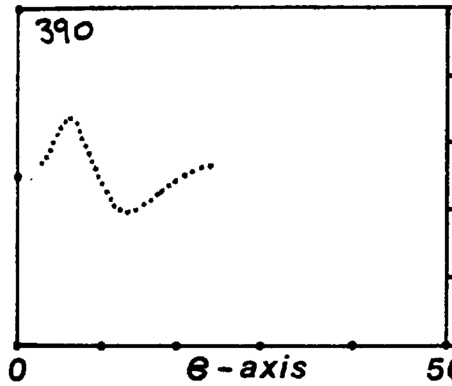
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBT

B



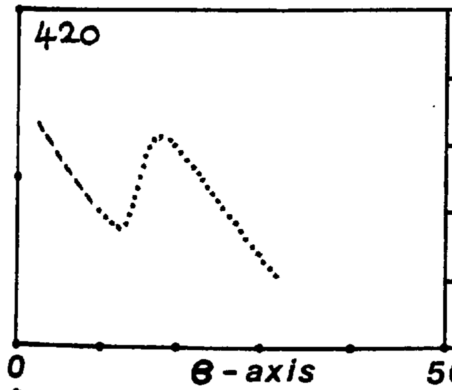
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBT

C



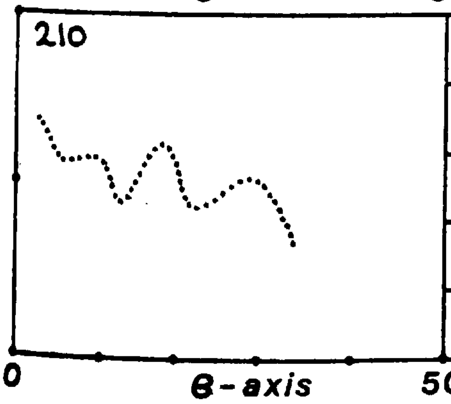
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBT

D



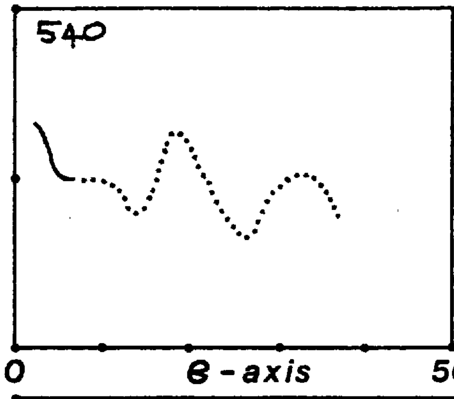
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBF

E



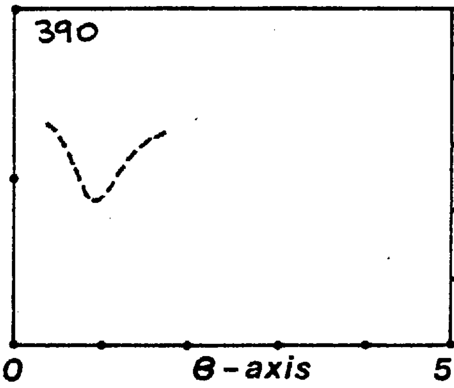
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBF

F



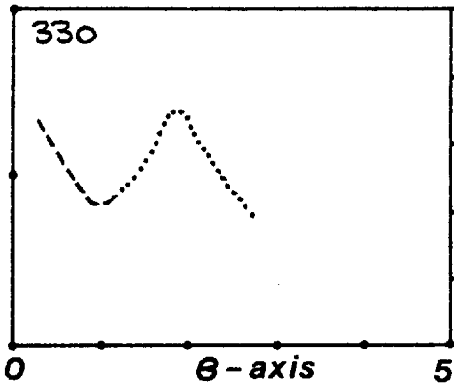
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBF

G



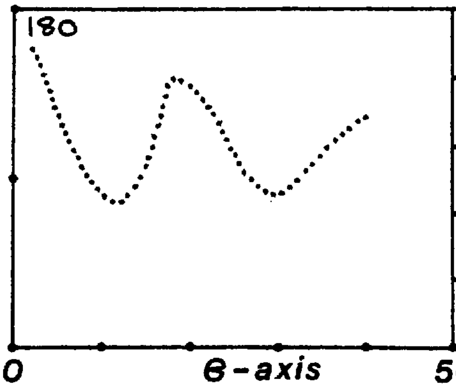
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBF

H



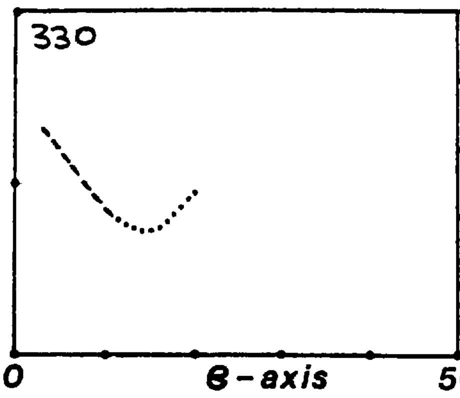
Sm	St
Be	G
Pr	1,2,3+4
Po	/
Mo	MBNB

I



Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBNB

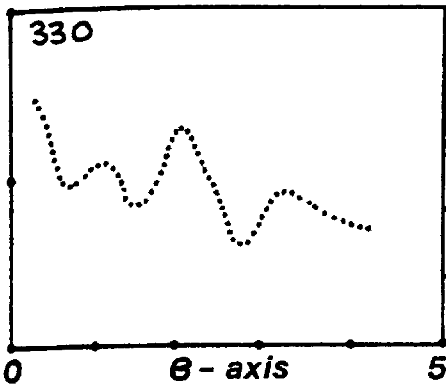
J



Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBNB

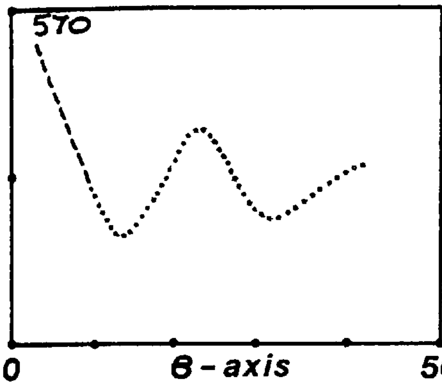
O.P.I.

A



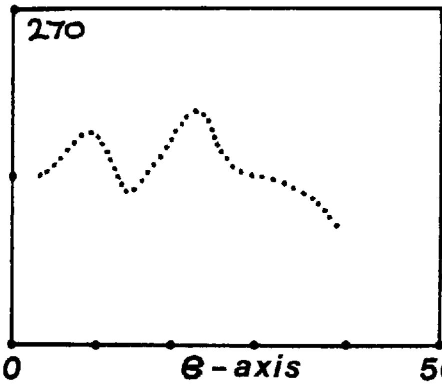
Sm	St
Be	N
Pr	1,2,3
Po	/
Mo	LBBT

B



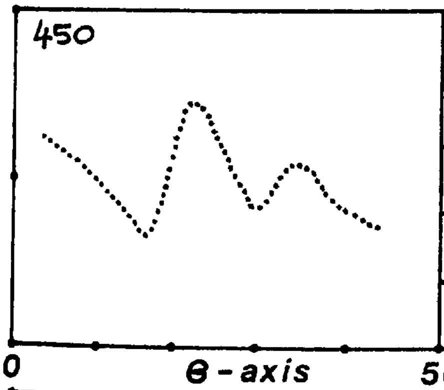
Sm	St
Be	G
Pr	1+2
Po	/
Mo	LBWB

C



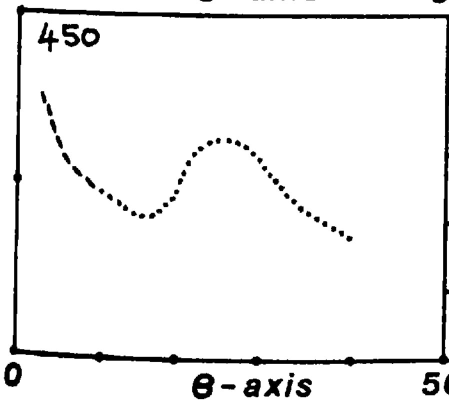
Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBWB

D



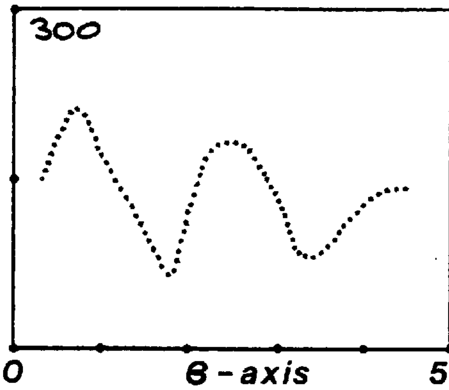
Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBWB

E



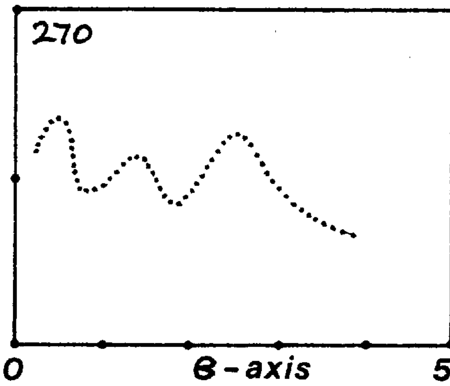
Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBWB

F



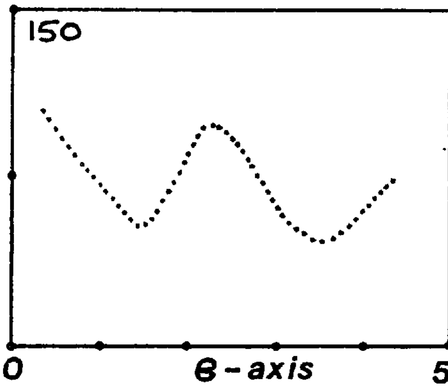
Sm	St
Be	G
Pr	1+2
Po	/
Mo	LBNB

G



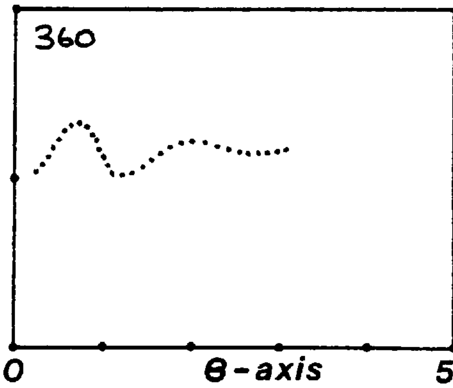
Sm	St
Be	G
Pr	3+4
Po	/
Mo	LBNB

H



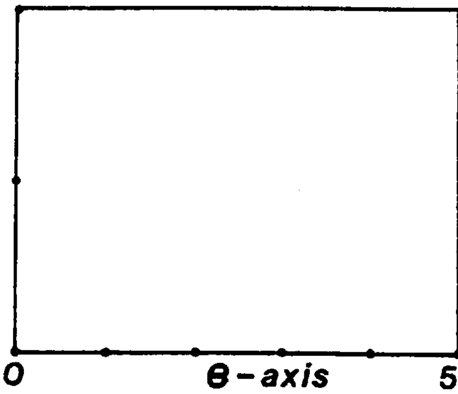
Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBNB

I



Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBNB

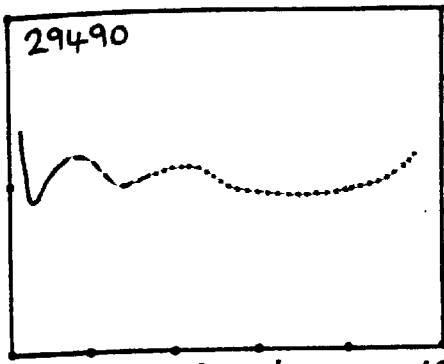
J



Sm	
Be	
Pr	
Po	
Mo	

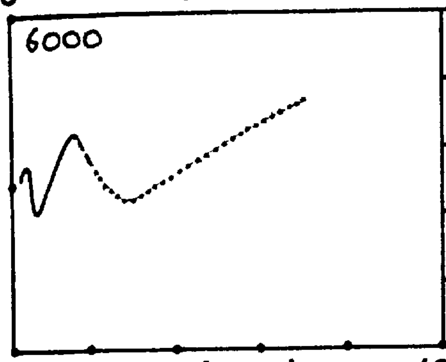
O.P.I.

A



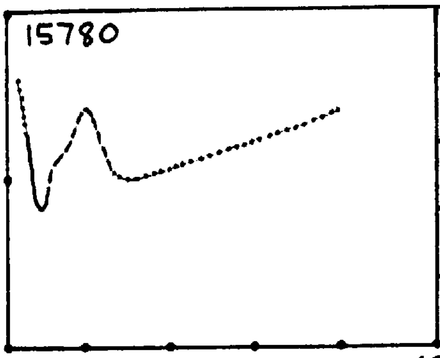
Sm	St
Be	G+N
Pr	All
Po	All
Mo	

B



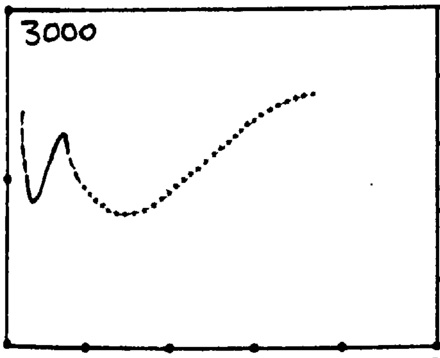
Sm	Gr
Be	G+N
Pr	All
Po	All
Mo	

C



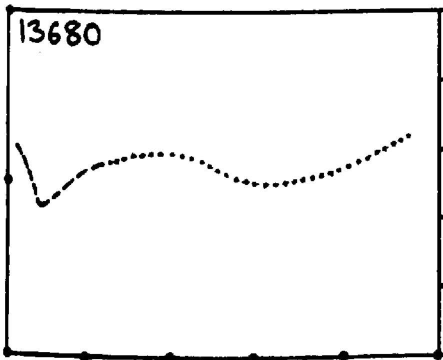
Sm	St
Be	G
Pr	All
Po	All
Mo	

D



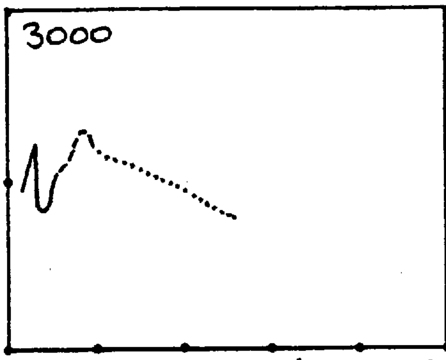
Sm	Gr
Be	G
Pr	All
Po	All
Mo	

E



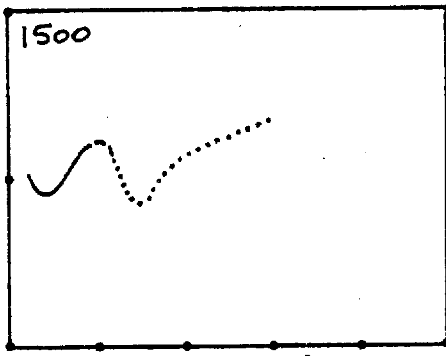
Sm	St
Be	N
Pr	All
Po	All
Mo	

F



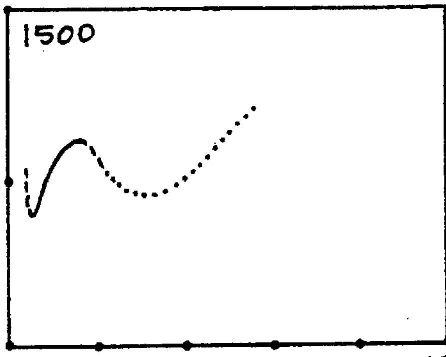
Sm	Gr
Be	N
Pr	All
Po	All
Mo	

G



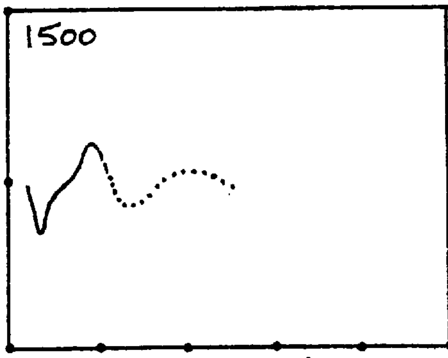
Sm	Gr
Be	G (1)
Pr	All
Po	All
Mo	

H



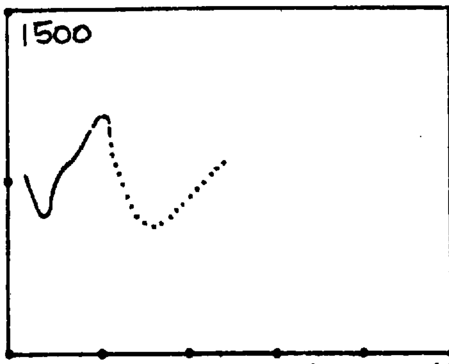
Sm	Gr
Be	G (2)
Pr	All
Po	All
Mo	

I



Sm	Gr
Be	N(1)
Pr	All
Po	All
Mo	

J



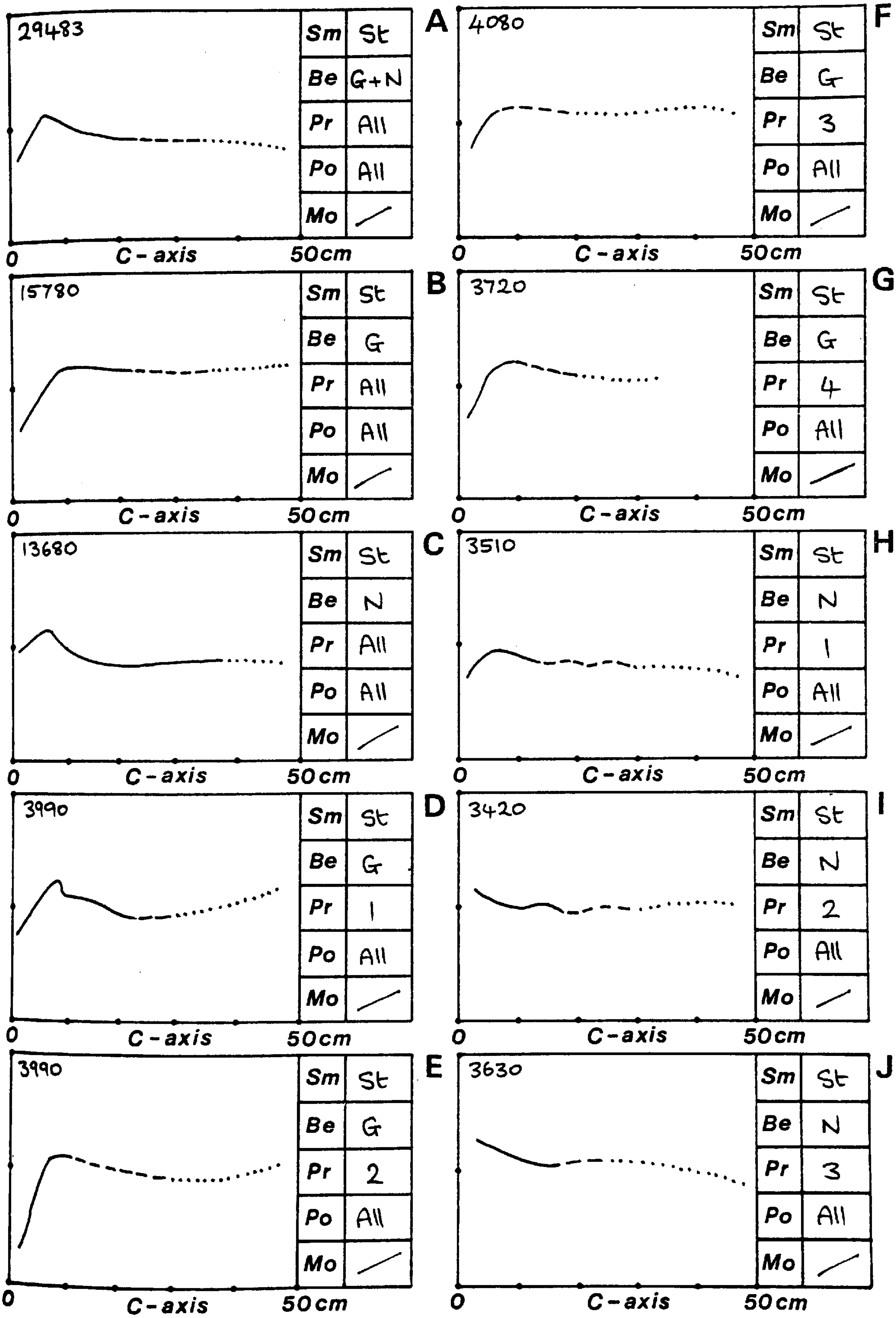
Sm	Gr
Be	N(2)
Pr	All
Po	All
Mo	

FIGURES 6.23AA-KC <u>PARTICLE SURFACE ROUNDNESS CURVES</u>

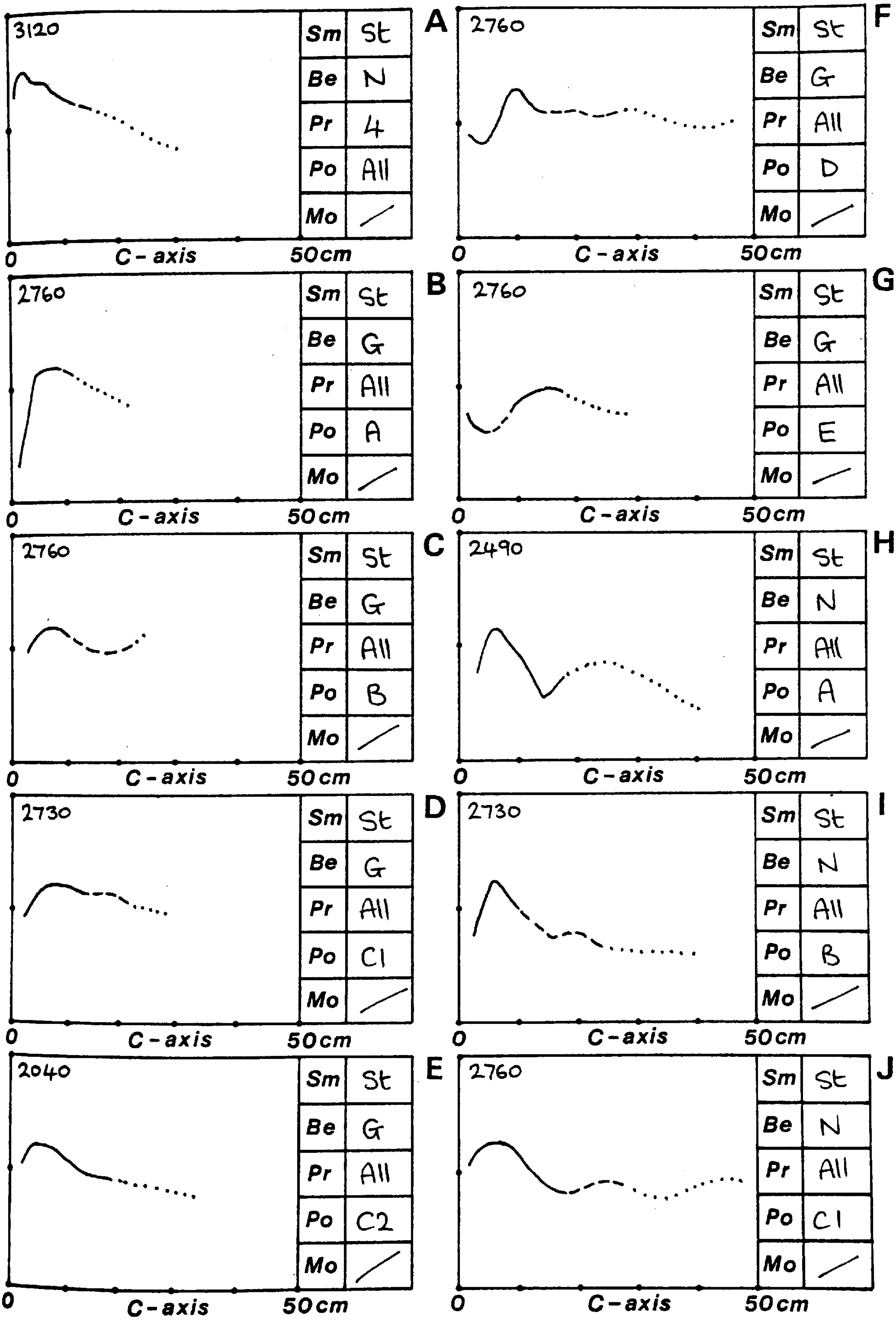
These have been constructed according to the procedure outlined in section 6.2.3 of the text. The following information is contained on each diagram: The sample size is indicated at the top. The size parameter chosen to represent particle size (in cm) is indicated on the horizontal axis. The vertcal axis is not labelled but runs in all cases from 0-1 (see Fig: 3.5). Higher values reflect rounder particles. The line illustrates how roundness changes as particle size increases.

The sample itself can be identified from the code used on the righthand side of each diagram: St indicates standard sampling (Sm), there being no roundness values for grid collected data. G or N signifies the beach (Be). The next box down indicates the cross-section (Pr) number from which the samples were taken. That below indicates the sampling point (Po) from which the samples were taken. The last box indicates (where appropriate) what morphological position (Mo) the samples were taken from. For an explanation of <u>1.</u> the abreviations used see section 6.8.1, <u>2.</u> the types of line used see Fig: 6.24.
N.B. Data from which these diagrams were constructed is given in Appendix 6.1.

Roundness

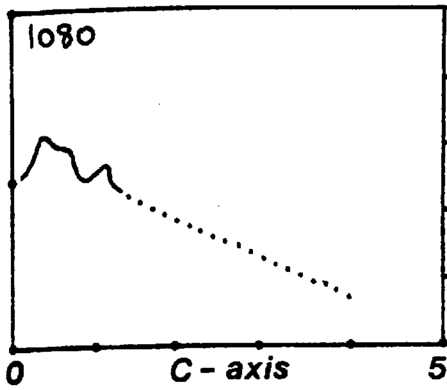

A
29483
Sm St
Be G+N
Pr All
Po All
Mo
0
C-axis
50cm
F
4080
Sm St
Be G
Pr 3
Po All
Mo
0
C-axis
50cm
B
15780
Sm St
Be G
Pr All
Po All
Mo
0
C-axis
50cm
G
3720
Sm St
Be G
Pr 4
Po All
Mo
0
C-axis
50cm
C
13680
Sm St
Be N
Pr All
Po All
Mo
0
C-axis
50cm
H
3510
Sm St
Be N
Pr 1
Po All
Mo
0
C-axis
50cm
D
3990
Sm St
Be G
Pr 1
Po All
Mo
0
C-axis
50cm
I
3420
Sm St
Be N
Pr 2
Po All
Mo
0
C-axis
50cm
E
3990
Sm St
Be G
Pr 2
Po All
Mo
0
C-axis
50cm
J
3630
Sm St
Be N
Pr 3
Po All
Mo
0
C-axis
50cm

Roundness


A
3120
Sm St
Be N
Pr 4
Po All
Mo
0 C-axis 50cm
B
2760
Sm St
Be G
Pr All
Po A
Mo
0 C-axis 50cm
C
2760
Sm St
Be G
Pr All
Po B
Mo
0 C-axis 50cm
D
2730
Sm St
Be G
Pr All
Po C1
Mo
0 C-axis 50cm
E
2040
Sm St
Be G
Pr All
Po C2
Mo
0 C-axis 50cm
F
2760
Sm St
Be G
Pr All
Po D
Mo
0 C-axis 50cm
G
2760
Sm St
Be G
Pr All
Po E
Mo
0 C-axis 50cm
H
2490
Sm St
Be N
Pr All
Po A
Mo
0 C-axis 50cm
I
2730
Sm St
Be N
Pr All
Po B
Mo
0 C-axis 50cm
J
2760
Sm St
Be N
Pr All
Po C1
Mo
0 C-axis 50cm

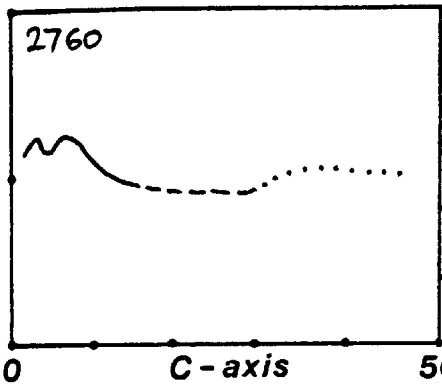
Roundness

A



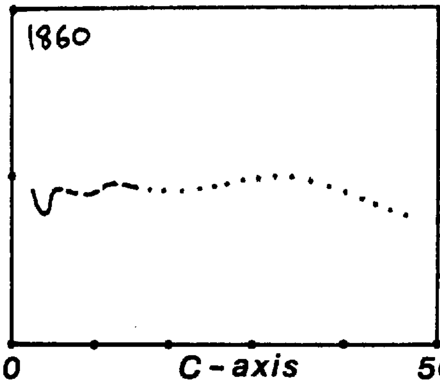
Sm	St
Be	N
Pr	All
Po	C2
Mo	/

B



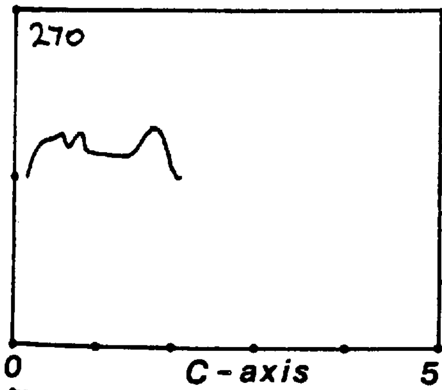
Sm	St
Be	N
Pr	All
Po	D
Mo	/

C



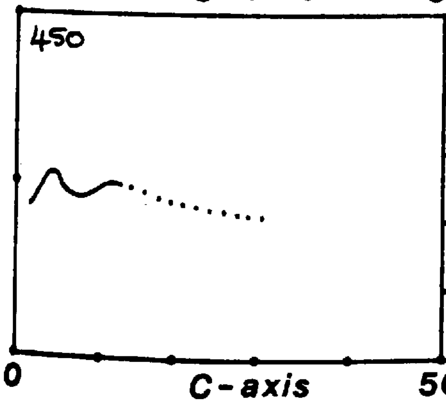
Sm	St
Be	N
Pr	All
Po	E
Mo	/

D



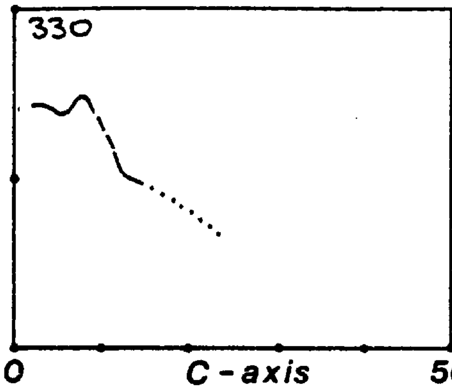
Sm	St
Be	G
Pr	1
Po	/
Mo	UBBT

E



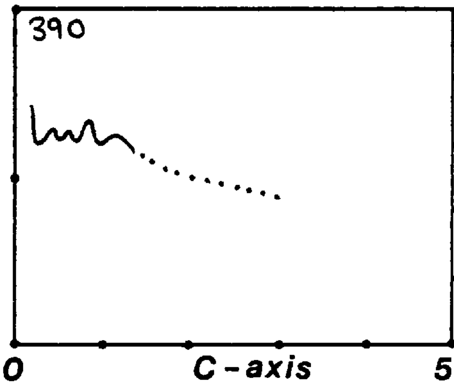
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBBT

F



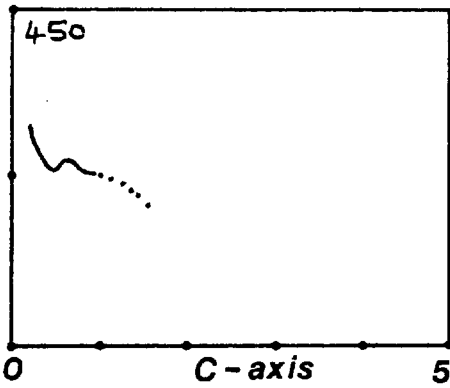
Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBBT

G



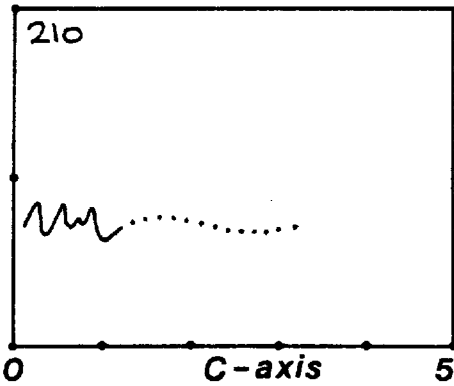
Sm	St
Be	G
Pr	1+2
Po	/
Mo	UBNB

H



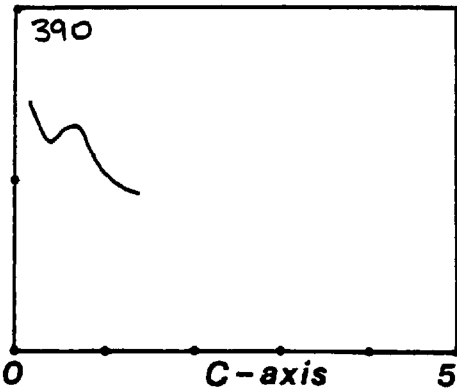
Sm	St
Be	G
Pr	3+4
Po	/
Mo	UBNB

I



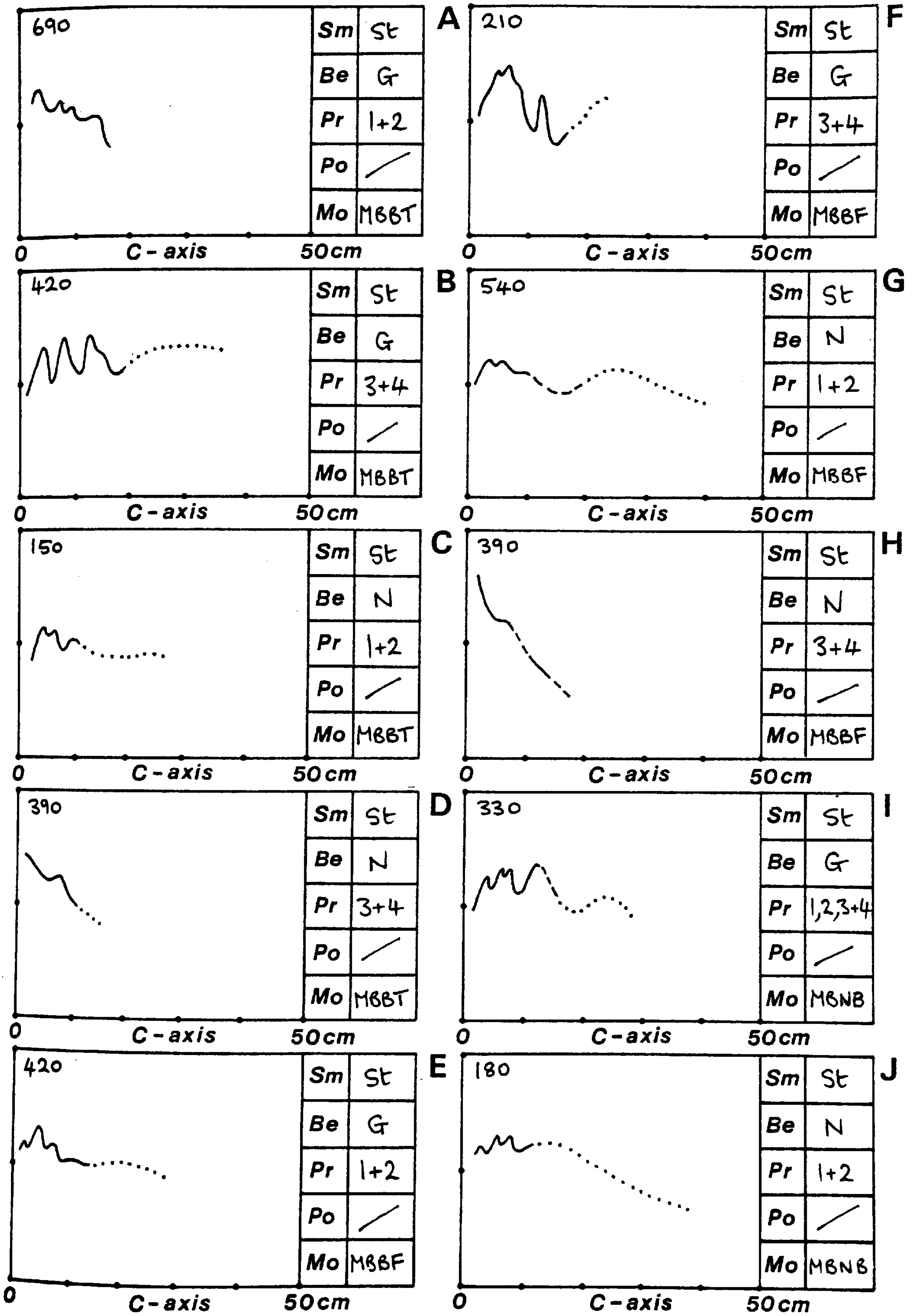
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBNB

J



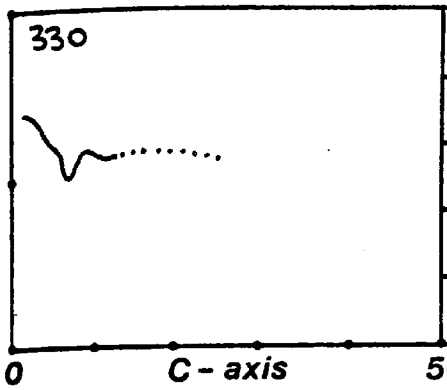
Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBNB

Roundness


A
690
Sm St
Be G
Pr 1+2
Po
Mo MBBT
0 C-axis 50cm
B
420
Sm St
Be G
Pr 3+4
Po
Mo MBBT
0 C-axis 50cm
C
150
Sm St
Be N
Pr 1+2
Po
Mo MBBT
0 C-axis 50cm
D
390
Sm St
Be N
Pr 3+4
Po
Mo MBBT
0 C-axis 50cm
E
420
Sm St
Be G
Pr 1+2
Po
Mo MBBF
0 C-axis 50cm
F
210
Sm St
Be G
Pr 3+4
Po
Mo MBBF
0 C-axis 50cm
G
540
Sm St
Be N
Pr 1+2
Po
Mo MBBF
0 C-axis 50cm
H
390
Sm St
Be N
Pr 3+4
Po
Mo MBBF
0 C-axis 50cm
I
330
Sm St
Be G
Pr 1,2,3+4
Po
Mo MBNB
0 C-axis 50cm
J
180
Sm St
Be N
Pr 1+2
Po
Mo MBNB
0 C-axis 50cm

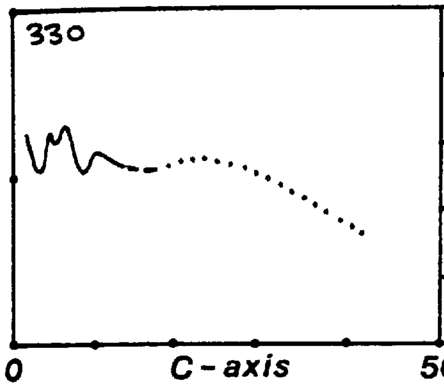
Roundness

A



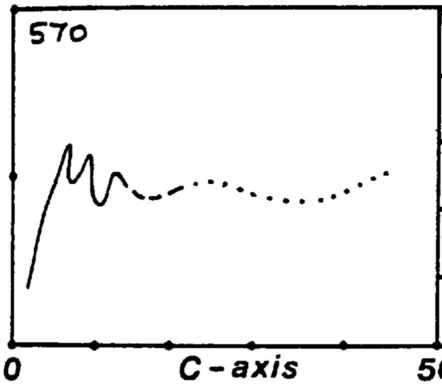
Sm	St
Be	N
Pr	3+4
Po	
Mo	MBNB

B



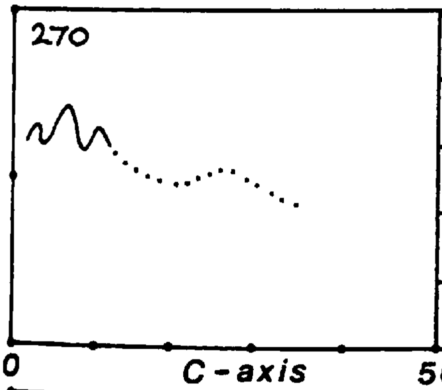
Sm	St
Be	N
Pr	1,2+3
Po	
Mo	LBBT

C



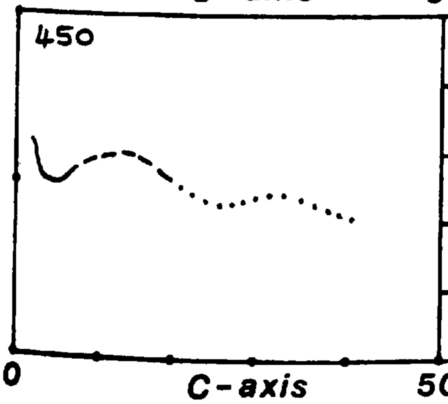
Sm	St
Be	G
Pr	1+2
Po	
Mo	LBWB

D



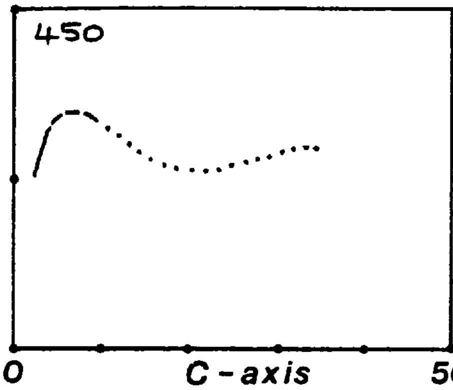
Sm	St
Be	G
Pr	3+4
Po	
Mo	LBWB

E



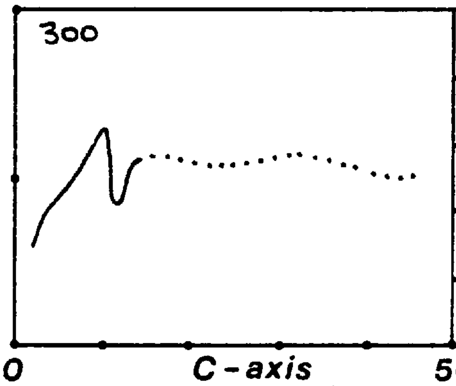
Sm	St
Be	N
Pr	1+2
Po	
Mo	LBWB

F



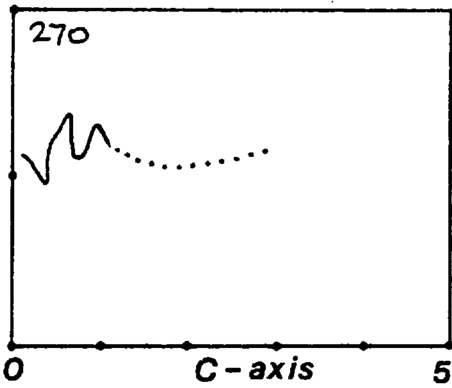
Sm	St
Be	N
Pr	3+4
Po	
Mo	LBWB

G



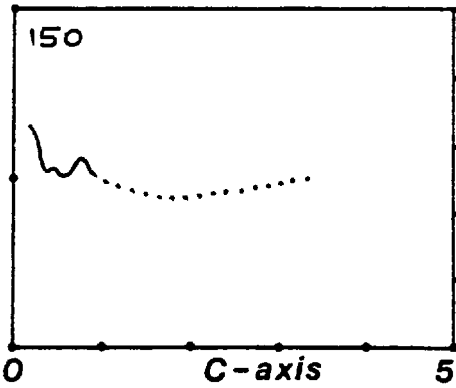
Sm	St
Be	G
Pr	1+2
Po	
Mo	LBNB

H



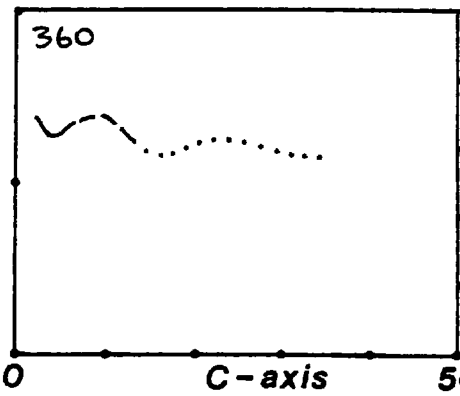
Sm	St
Be	G
Pr	3+4
Po	
Mo	LBNB

I



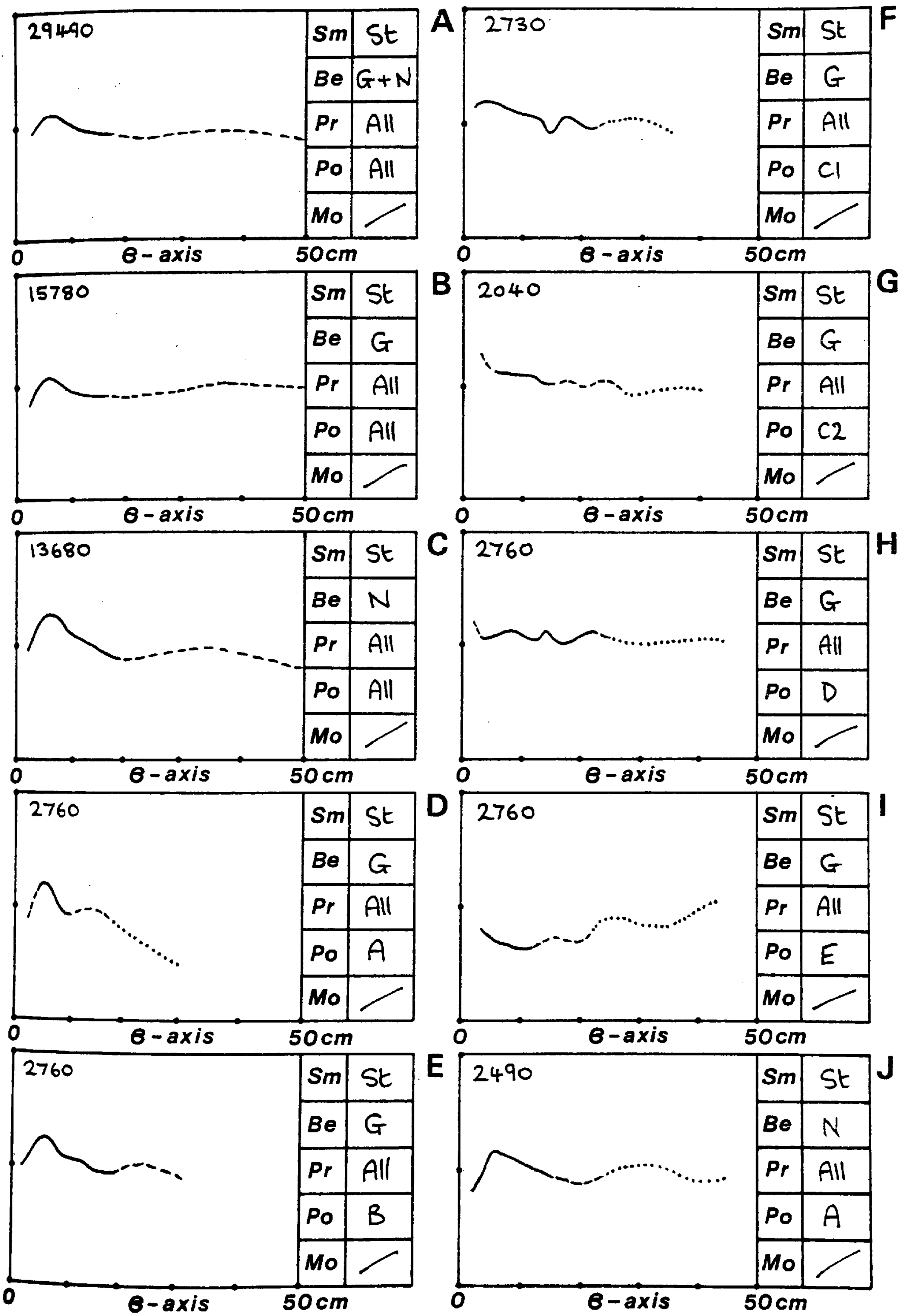
Sm	St
Be	N
Pr	1+2
Po	
Mo	LBNB

J



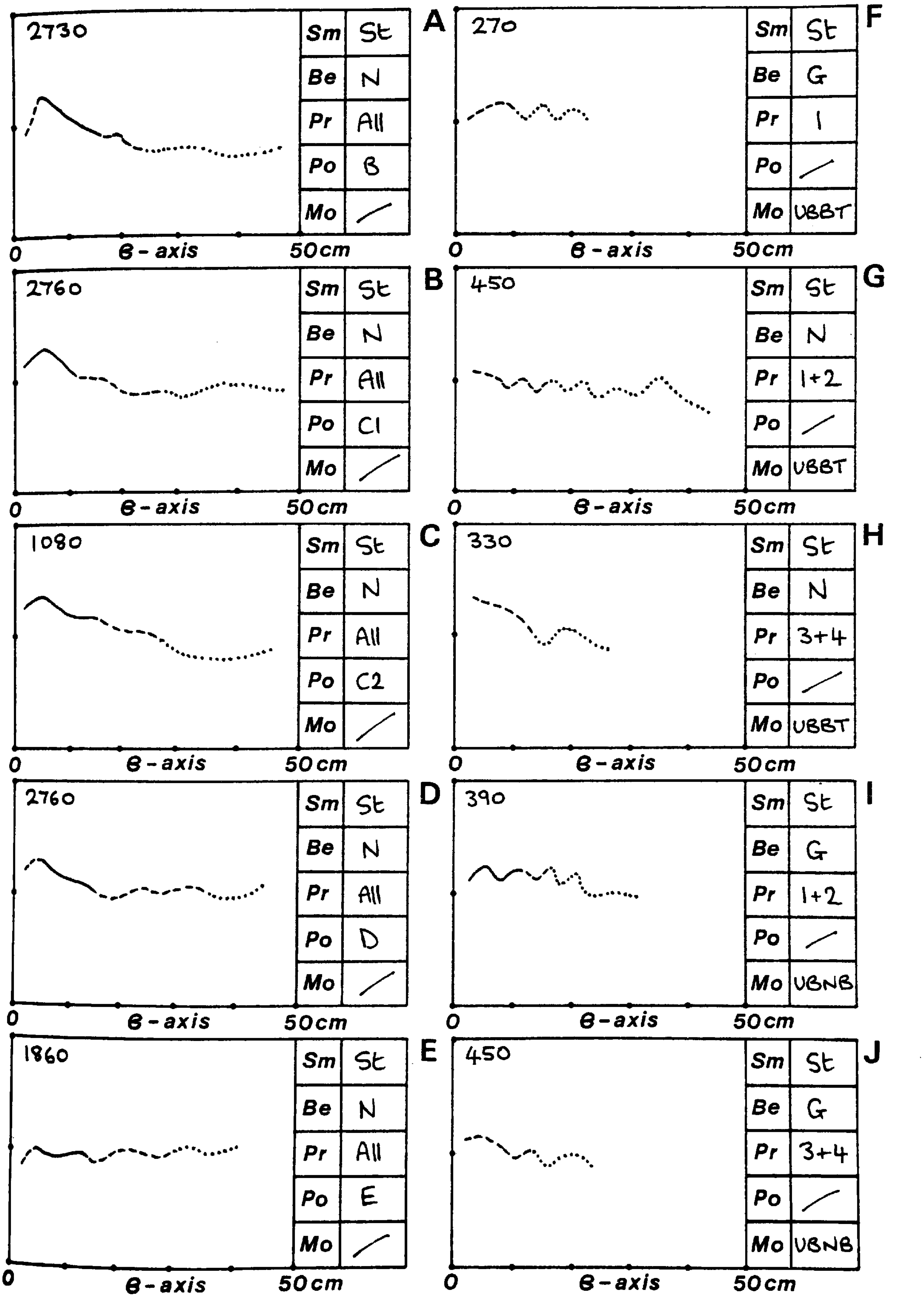
Sm	St
Be	N
Pr	3+4
Po	
Mo	LBNB

Roundness



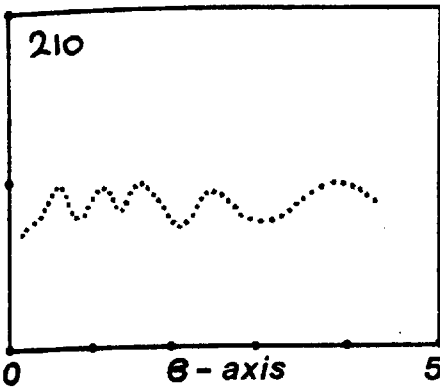
A
29490
Sm St
Be G+N
Pr All
Po All
Mo
0 θ - axis 50cm
B
15780
Sm St
Be G
Pr All
Po All
Mo
0 θ - axis 50cm
C
13680
Sm St
Be N
Pr All
Po All
Mo
0 θ - axis 50cm
D
2760
Sm St
Be G
Pr All
Po A
Mo
0 θ - axis 50cm
E
2760
Sm St
Be G
Pr All
Po B
Mo
0 θ - axis 50cm
F
2730
Sm St
Be G
Pr All
Po C1
Mo
0 θ - axis 50cm
G
2040
Sm St
Be G
Pr All
Po C2
Mo
0 θ - axis 50cm
H
2760
Sm St
Be G
Pr All
Po D
Mo
0 θ - axis 50cm
I
2760
Sm St
Be G
Pr All
Po E
Mo
0 θ - axis 50cm
J
2490
Sm St
Be N
Pr All
Po A
Mo
0 θ - axis 50cm

Roundness


A
2730
Sm St
Be N
Pr All
Po B
Mo
0
B - axis
50cm
B
2760
Sm St
Be N
Pr All
Po C1
Mo
0
B - axis
50cm
C
1080
Sm St
Be N
Pr All
Po C2
Mo
0
B - axis
50cm
D
2760
Sm St
Be N
Pr All
Po D
Mo
0
B - axis
50cm
E
1860
Sm St
Be N
Pr All
Po E
Mo
0
B - axis
50cm
F
270
Sm St
Be G
Pr 1
Po
Mo UBBT
0
B - axis
50cm
G
450
Sm St
Be N
Pr 1+2
Po
Mo UBBT
0
B - axis
50cm
H
330
Sm St
Be N
Pr 3+4
Po
Mo UBBT
0
B - axis
50cm
I
390
Sm St
Be G
Pr 1+2
Po
Mo UBNB
0
B - axis
50cm
J
450
Sm St
Be G
Pr 3+4
Po
Mo UBNB
0
B - axis
50cm

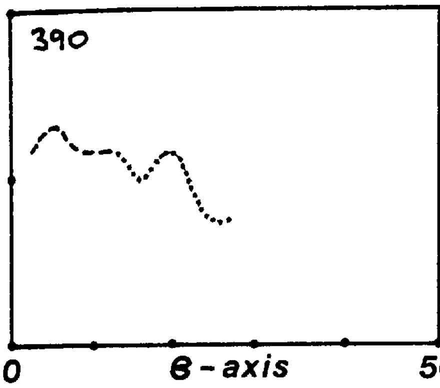
Roundness

A



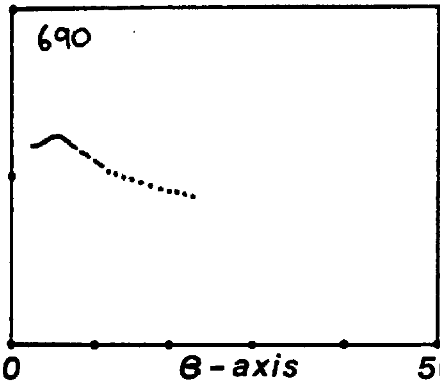
Sm	St
Be	N
Pr	1+2
Po	/
Mo	UBNB

B



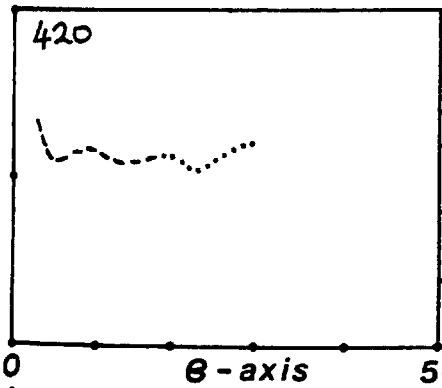
Sm	St
Be	N
Pr	3+4
Po	/
Mo	UBNB

C



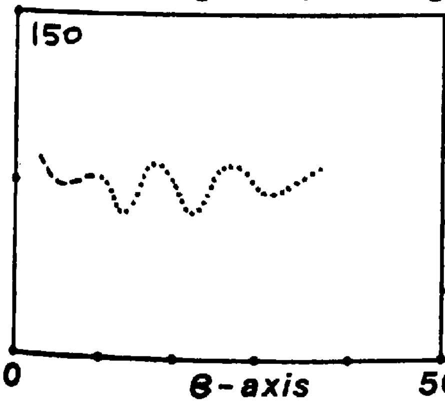
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBT

D



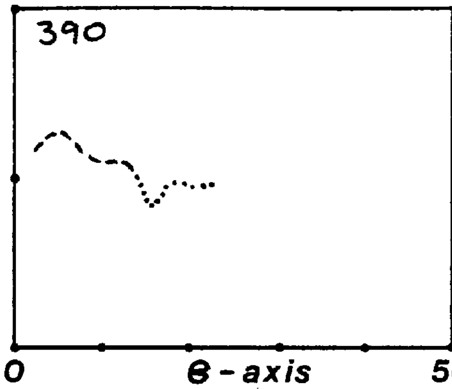
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBT

E



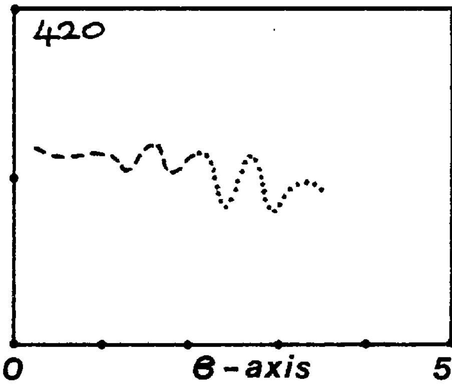
Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBT

F



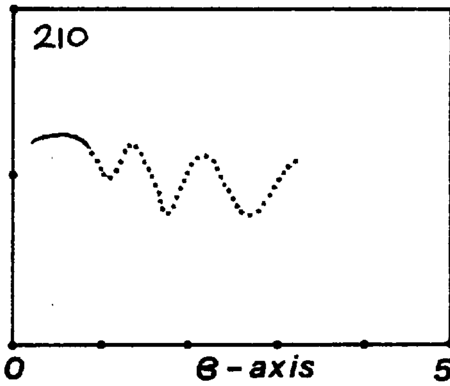
Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBT

G



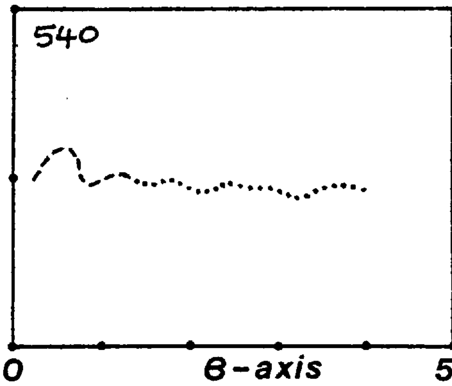
Sm	St
Be	G
Pr	1+2
Po	/
Mo	MBBF

H



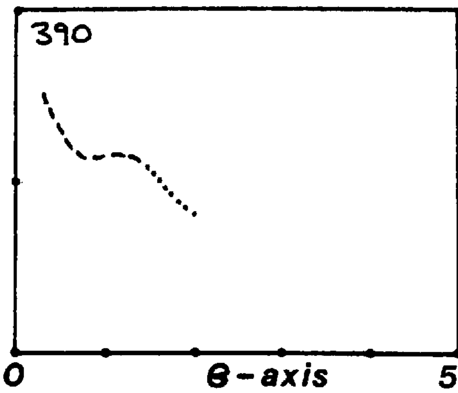
Sm	St
Be	G
Pr	3+4
Po	/
Mo	MBBF

I



Sm	St
Be	N
Pr	1+2
Po	/
Mo	MBBF

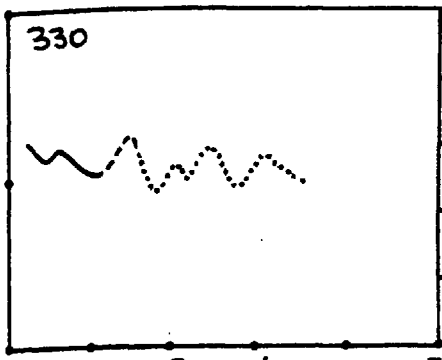
J



Sm	St
Be	N
Pr	3+4
Po	/
Mo	MBBF

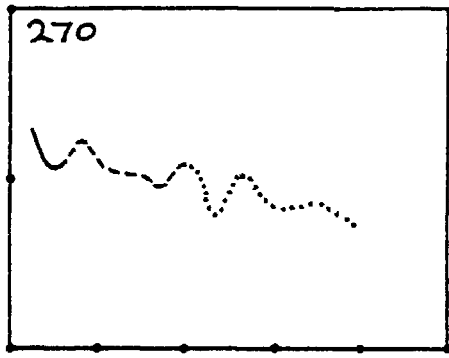
Roundness

A



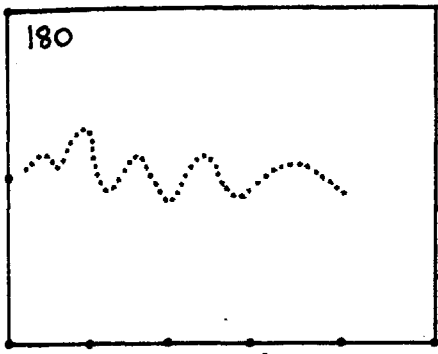
Sm	St
Be	G
Pr	1,2,3+4
Po	
Mo	MBNB

F



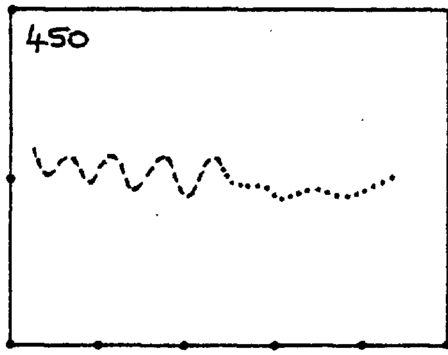
Sm	St
Be	G
Pr	3+4
Po	
Mo	LBWB

B



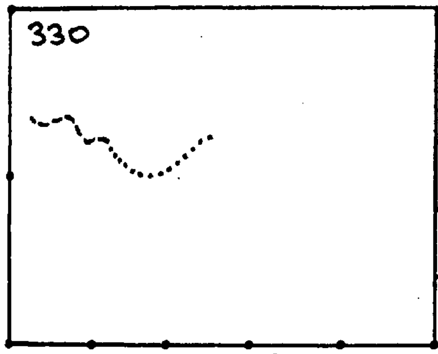
Sm	St
Be	N
Pr	1+2
Po	
Mo	MBNB

G



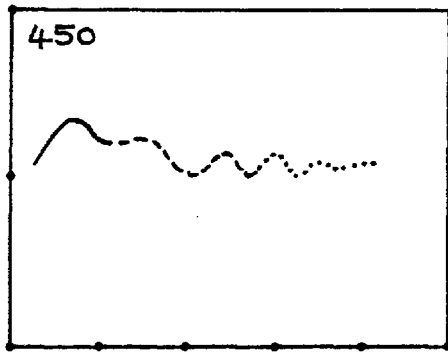
Sm	St
Be	N
Pr	1+2
Po	
Mo	LBWB

C



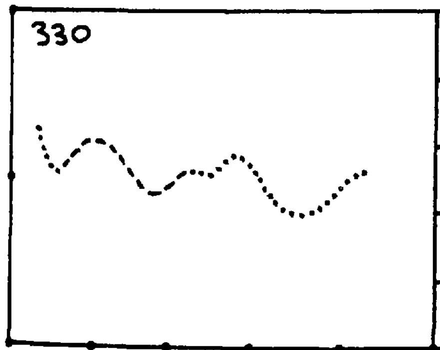
Sm	St
Be	N
Pr	3+4
Po	
Mo	MBNB

H



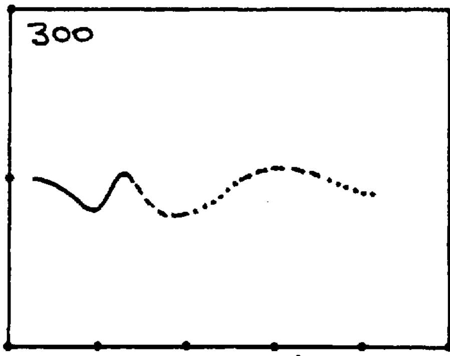
Sm	St
Be	N
Pr	3+4
Po	
Mo	LBWB

D



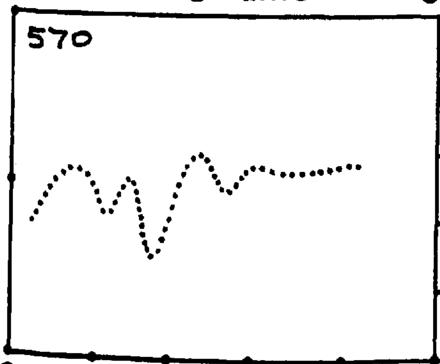
Sm	St
Be	N
Pr	1,2+3
Po	
Mo	LBBT

I



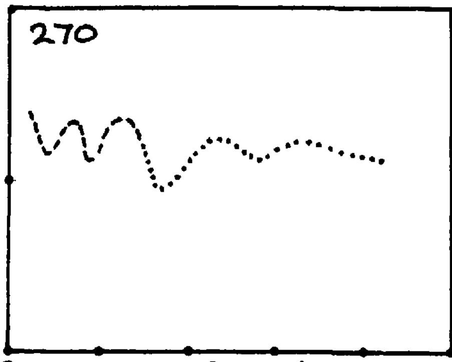
Sm	St
Be	G
Pr	1+2
Po	
Mo	LBNB

E



Sm	St
Be	G
Pr	1+2
Po	
Mo	LBWB

J

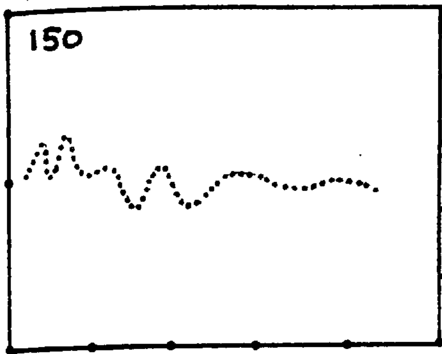


Sm	St
Be	G
Pr	3+4
Po	
Mo	LBNB

Roundness

6.23 (J)

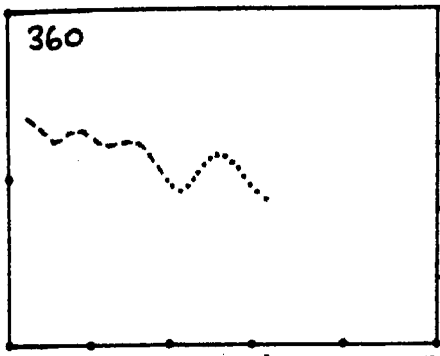
A



0 B - axis 50cm

Sm	St
Be	N
Pr	1+2
Po	/
Mo	LBNB

B



0 B - axis 50cm

Sm	St
Be	N
Pr	3+4
Po	/
Mo	LBNB

C

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

D

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

E

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

F

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

G

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

H

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

I

0 B - axis 50cm

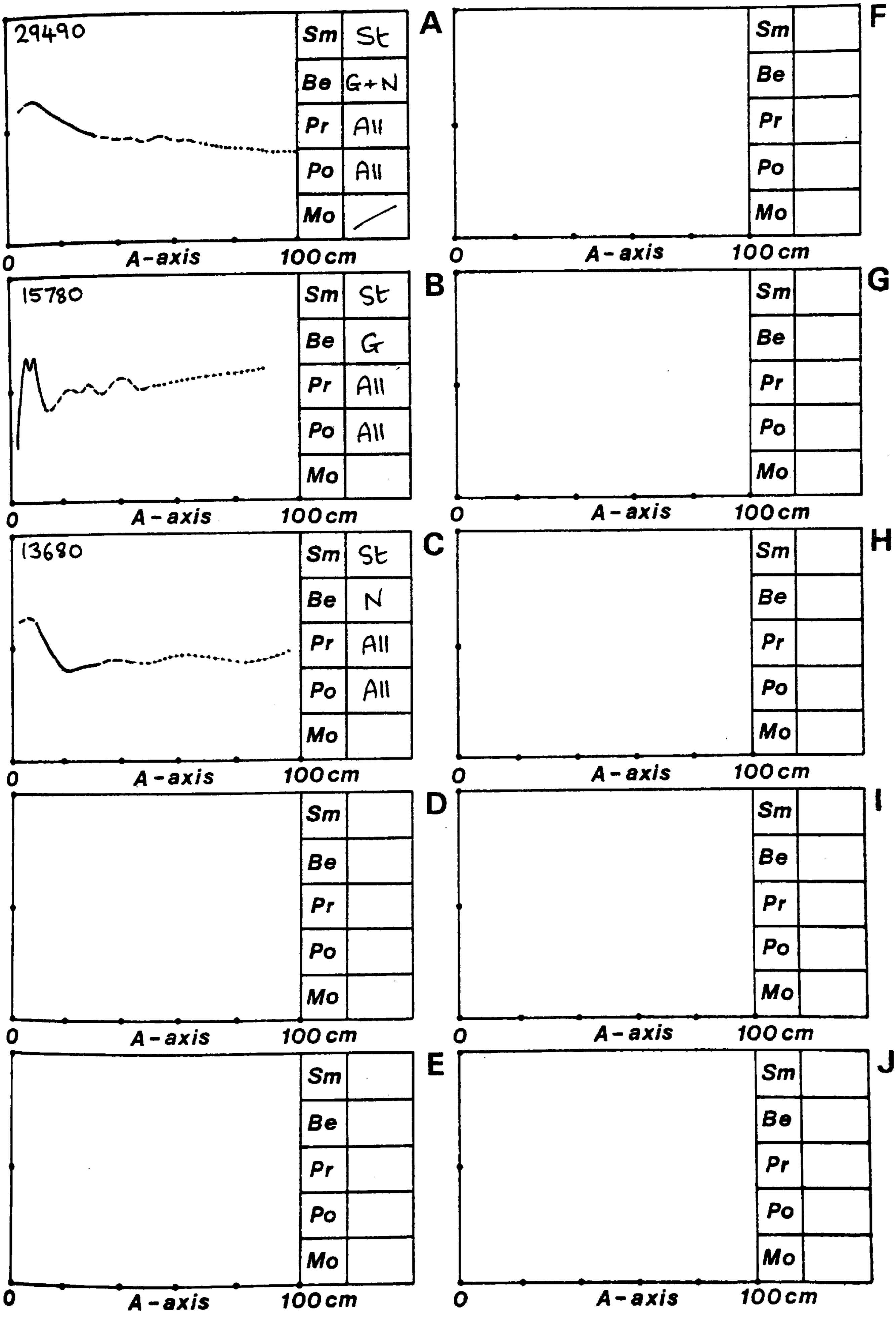
Sm	
Be	
Pr	
Po	
Mo	

J

0 B - axis 50cm

Sm	
Be	
Pr	
Po	
Mo	

Roundness


A
29490
Sm St
Be G+N
Pr All
Po All
Mo
0 A-axis 100 cm
B
15780
Sm St
Be G
Pr All
Po All
Mo
0 A-axis 100 cm
C
13680
Sm St
Be N
Pr All
Po All
Mo
0 A-axis 100 cm
D
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
E
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
F
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
G
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
H
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
I
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm
J
Sm
Be
Pr
Po
Mo
0 A-axis 100 cm

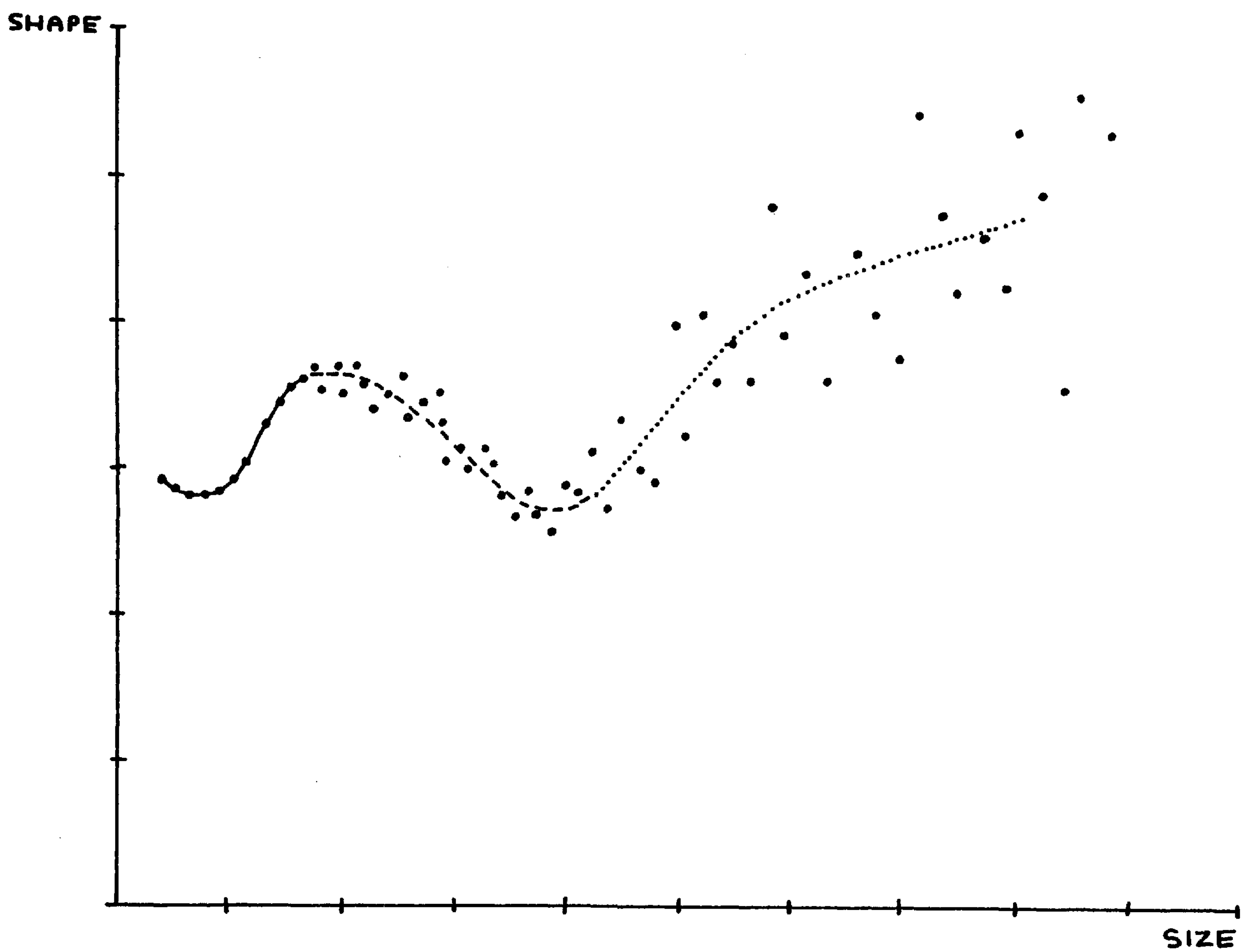
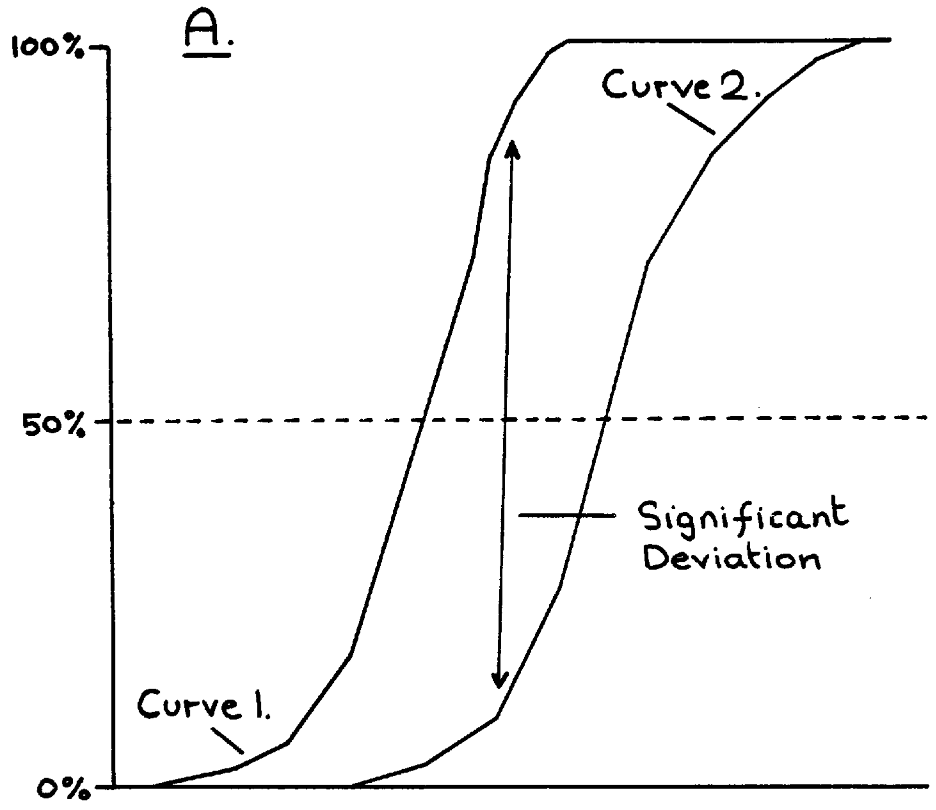
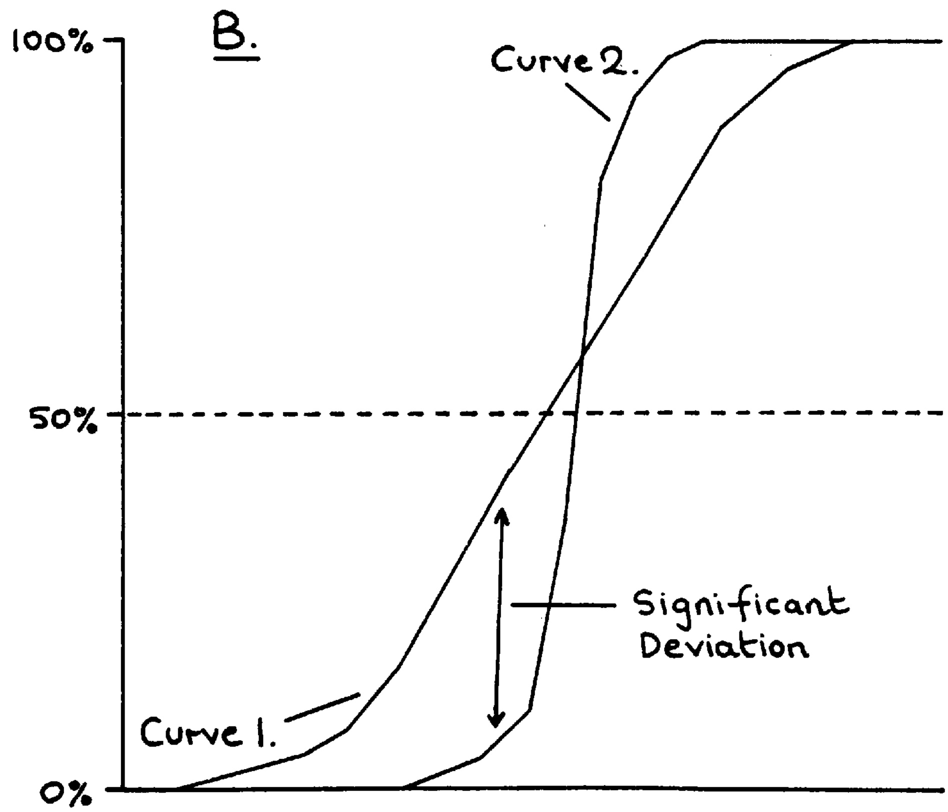


FIGURE 6.24 SHOWING HOW THREE TYPES OF LINE WERE SELECTED FOR USE IN SIZE-SHAPE DIAGRAMS
(See section 6.2.3 of text)





FIGURES 6.25A-B <u>TWO EXAMPLES OF HOW THE KOLMOROGOV-SMIRNOV TWO-SAMPLE TEST IDENTIFIES SIGNIFICANT DIFFERENCES BETWEEN TWO POPULATIONS</u>

(See section 6.5.1 of text)

Prof	1	2	3
2	●		
3		●	
4	●	●	●

Beach: G
Point: A
DISCS

FIGURE 6.26 <u>EXAMPLE OF A K-S TEST RESULT MATRIX FOR ALONG-BEACH SEDIMENT COMPARISONS</u>

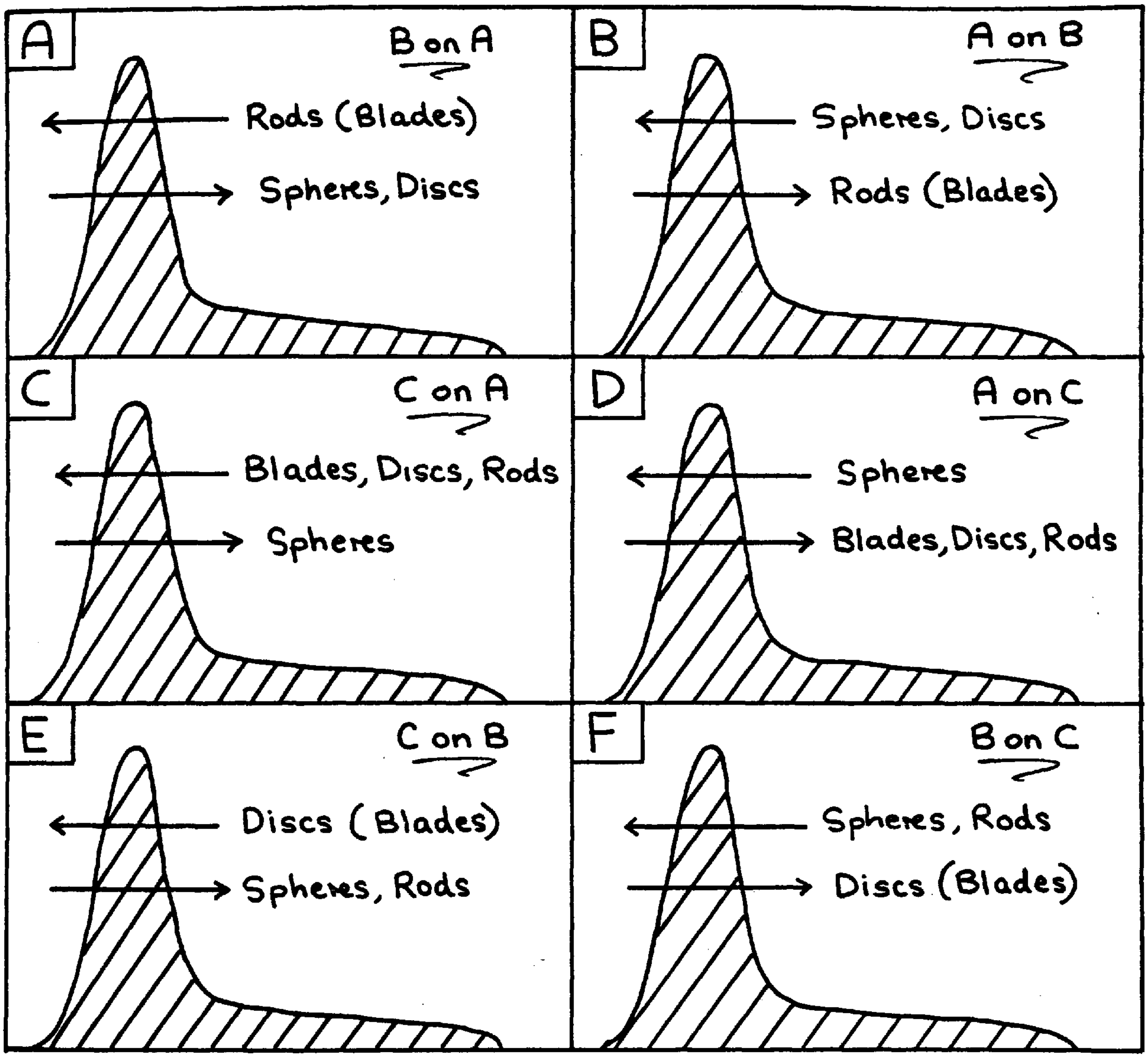
(See section 6.5.1 of text)

Beach: G
Profile: 4
SPHERES

Point	A	B	C1	D
B	●			
C1	●	●		
D	●	●		
E	●	●	●	●

FIGURE 6.27 EXAMPLE OF A K-S TEST RESULT MATRIX FOR DOWN-BEACH SEDIMENT COMPARISONS

(See section 6.6.1 of text)



FIGURES 6.28A-F SCHEMATIC DIAGRAMS SHOWING THE TENDENCY OF ONE PARTICLE SIZE PARAMETER TO REALISE SHAPES AT DIFFERENT POINTS UNDER THE SIZE-FREQUENCY CURVE IN COMPARISON WITH THE DISTRIBUTION OF SHAPES ASSOCIATED WITH ANOTHER SIZE PARAMETER

(See section 6.7.1 of text)

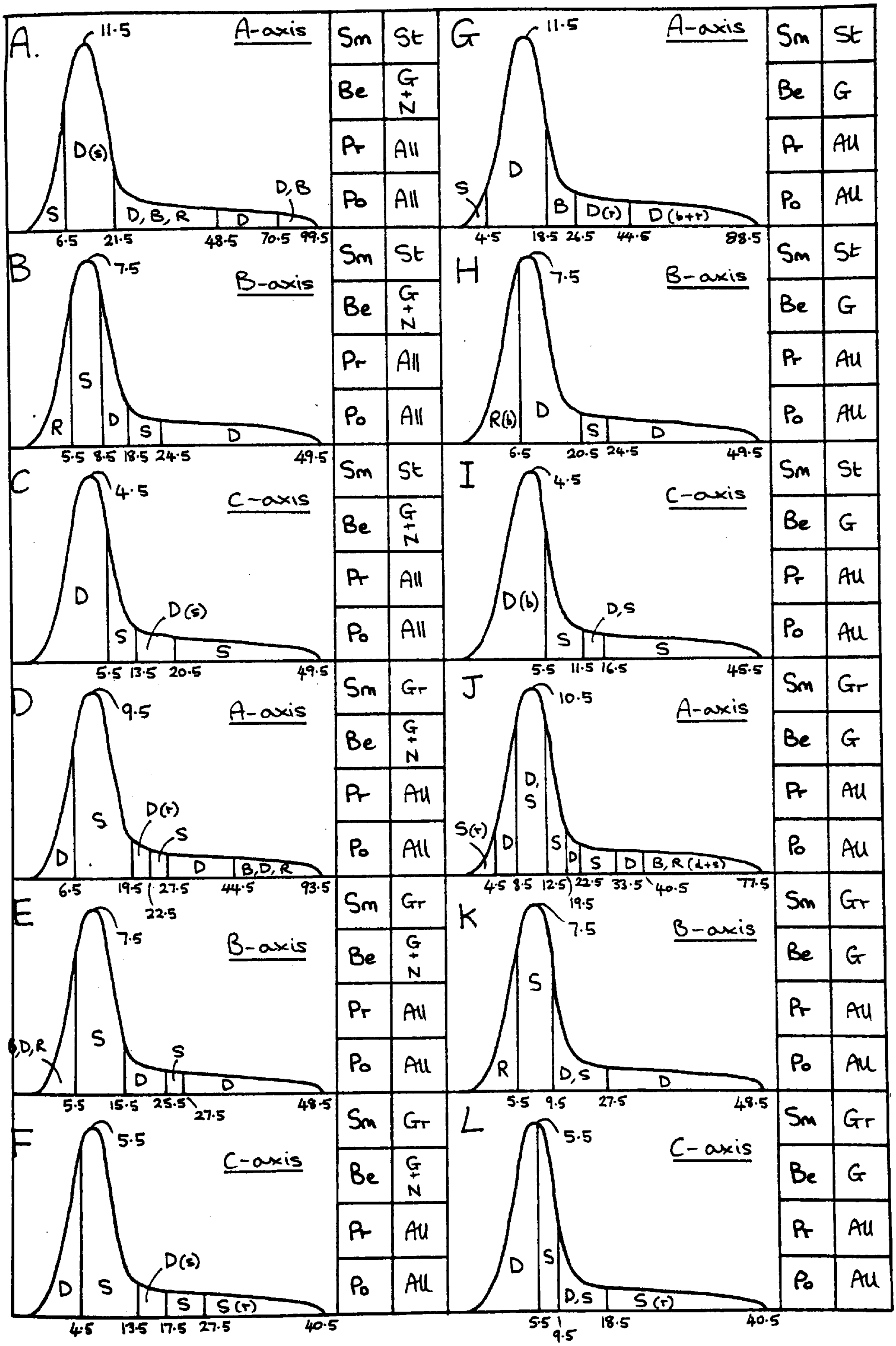
FIGURES 6.29AA-EF <u>MEAN-SHAPE-FREQUENCY CURVES</u>

These have been constructed according to the procedure outlined in section 6.7.2 of the text. They are schematic diagrams which simply show the arrangement of mean shapes within the size mode and the tail of samples. No attempt has been made to represent the actual size-frequency curve. Figures 6.19AA-QB should be consulted for this information. Instead, particle size has been indicated at key places along the horizontal axes (such as the modal peak, the extremity of the tail, and at those points where there was a change in mean shape.

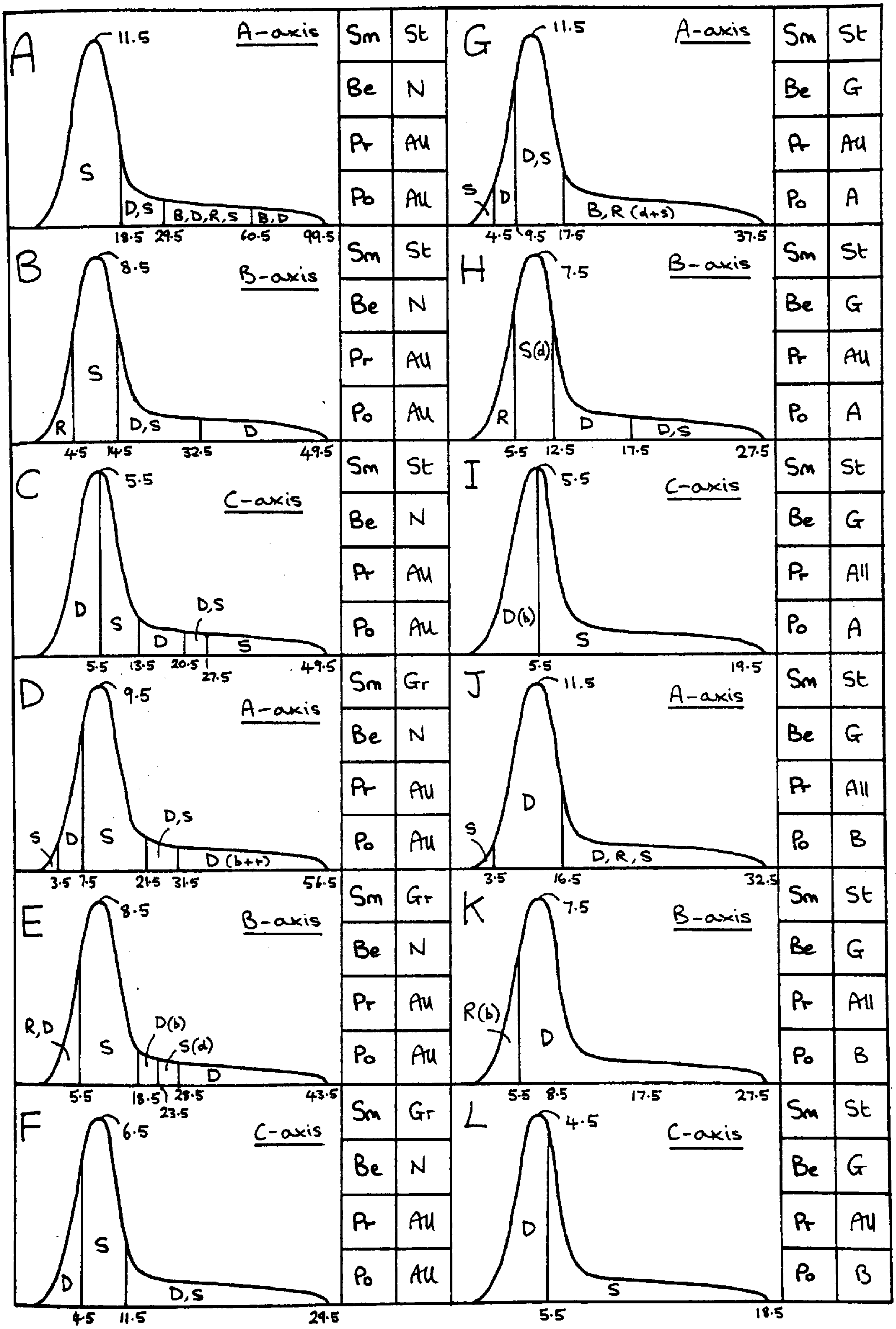
In an area under the size-frequency curve where one shape was completely dominant, the first letter of this shape has been printed in capitals. When two shapes were consecutively and equally realised, the first letters of these shapes has been printed in capitals, separated by a comma. When one or more shapes were dominant, but one or more other shapes were also occasionally realised, the first are printed in capitals, with the minority printed in lower-case inside brackets.

Each sample can be identified from the code used on the righthand side of the diagrams. St or Gr indicates standard or grid sampling (Sm). G or N signifies the beach (Be). The next box down indicates the cross-section (Pr) number from which the samples were taken. That below indicates the sampling point (Po) from which the samples were taken.
N.B. Data from which these diagrams were constructed is given in Appendix 6.2.

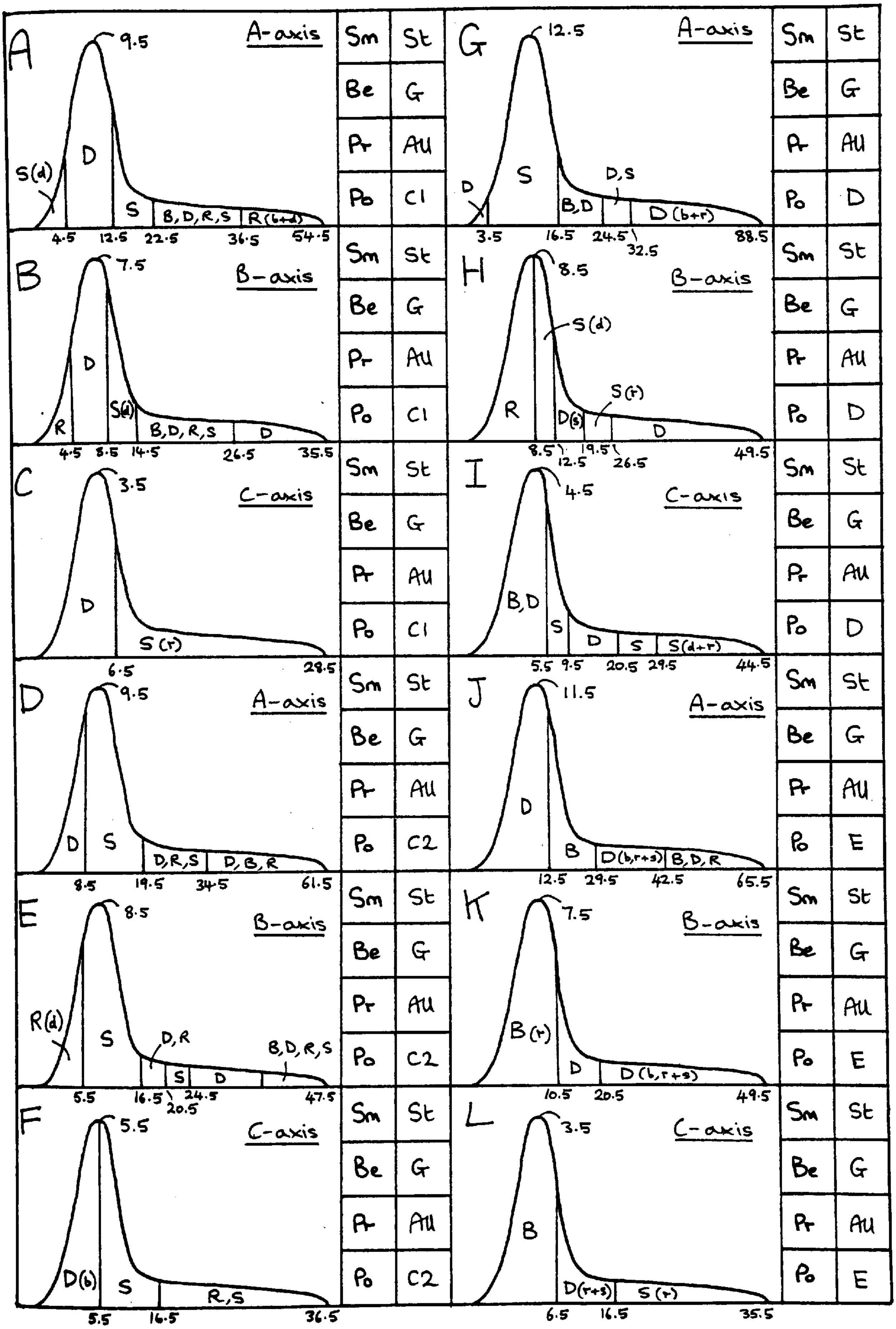
Mean-Shape 6.29A



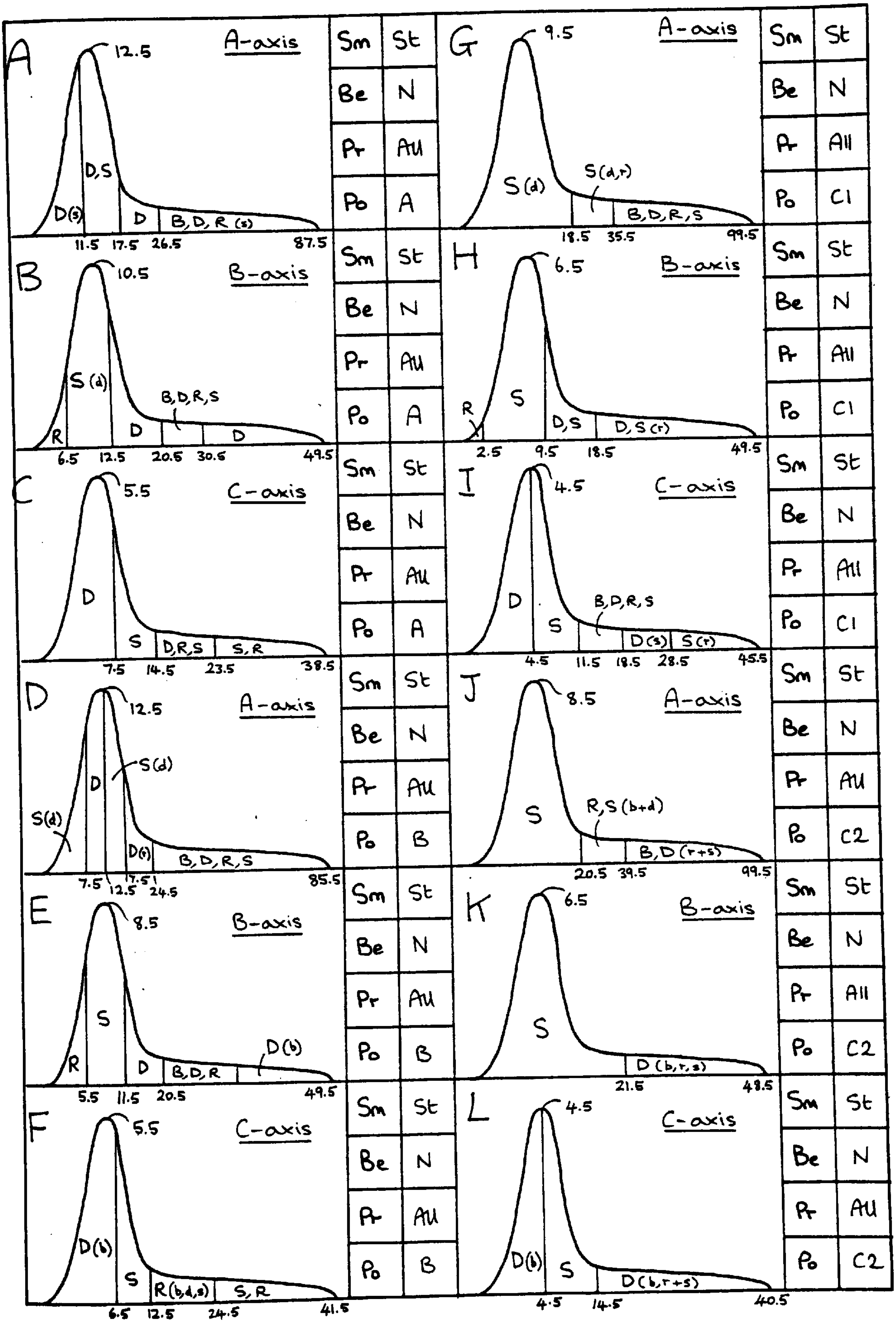
Mean-Shape 6.29B



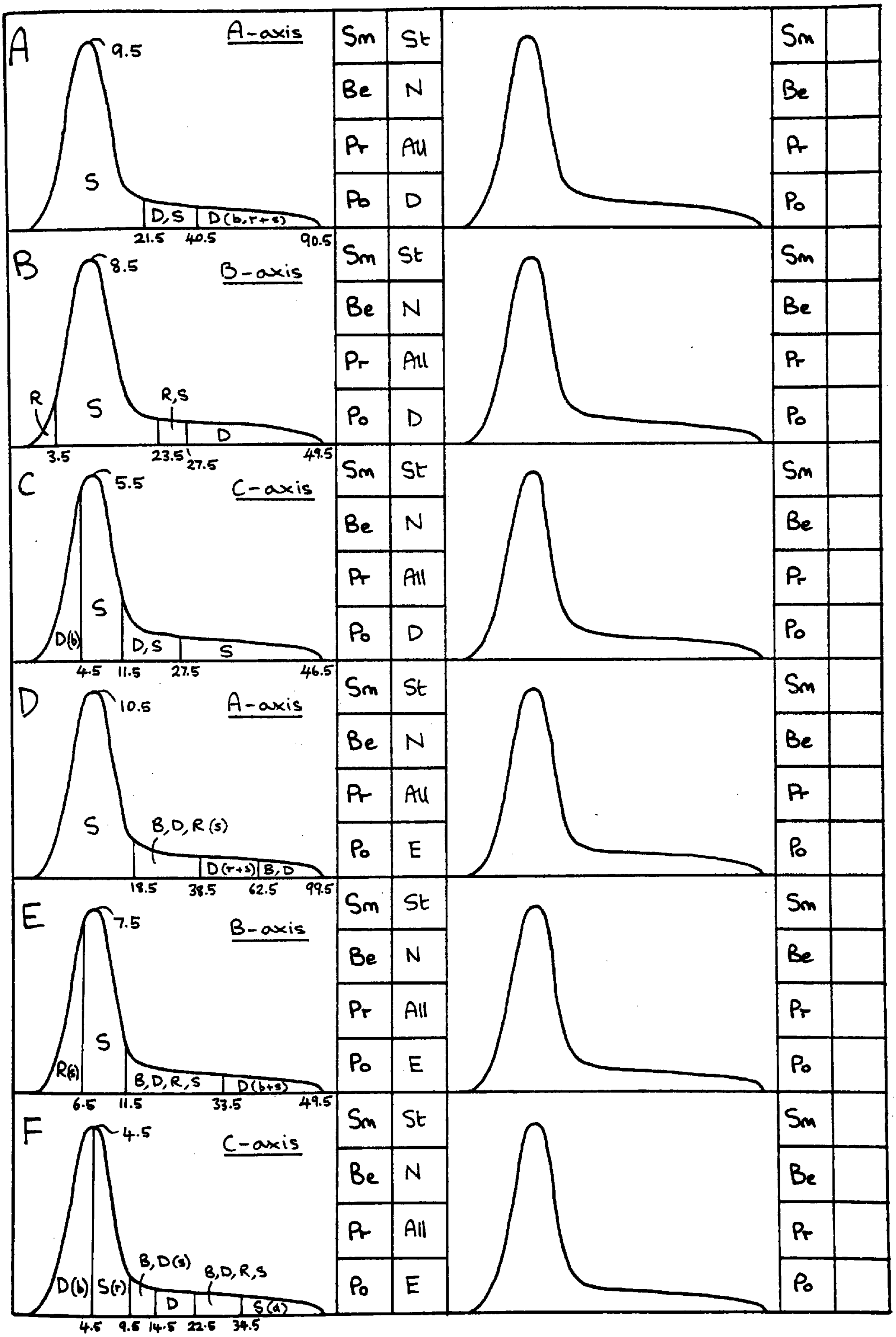
Mean Shape 6.29C



Mean-Shape 6.29D



Mean-Shape 6.29E



FIGURES 6.30A-H ILLUSTRATING THE SELECTION OF SEDIMENT SAMPLES FROM EIGHT DIFFERENT MORPHOLOGICAL POSITIONS

The criteria upon which this selection took place is detailed in section 6.8.1 of the text. The diagrams contain the following information: Rows 1-8 indicate the cross-sections from which samples were taken. Where a sample has been selected the sampling position from which it was derived is indicated (Fig: 3.6), together with the profile configuration at that time (see Key to Table 5.2). Row 9 forms an apex for each column such that the point at which it touches the lower horizontal line of Row 9 represents the time of sampling (month are shown at bottom of the diagram.

Row 10 shows significant wave height recorded in metres above still water level by HRS Wave Rider Buoy A (Figs: 2.13 and 2.14A-E). Row 11 indicates the occurrence of storm events as defined by the HRS Wave Climate Study (EX 914) in which the wind speed threshold was set at 10 or more knots/sec. The sector between 220 and 320 (true) represents winds from the west. Row 13 indicates similarly defined storm events caused by winds from the northeast. Row 12 shows the tidal regime in terms of the semi-diurnal high water level recorded in metres above O.D. for Barry Dock.

Sample position: UBBT

FIGURE 6.30A

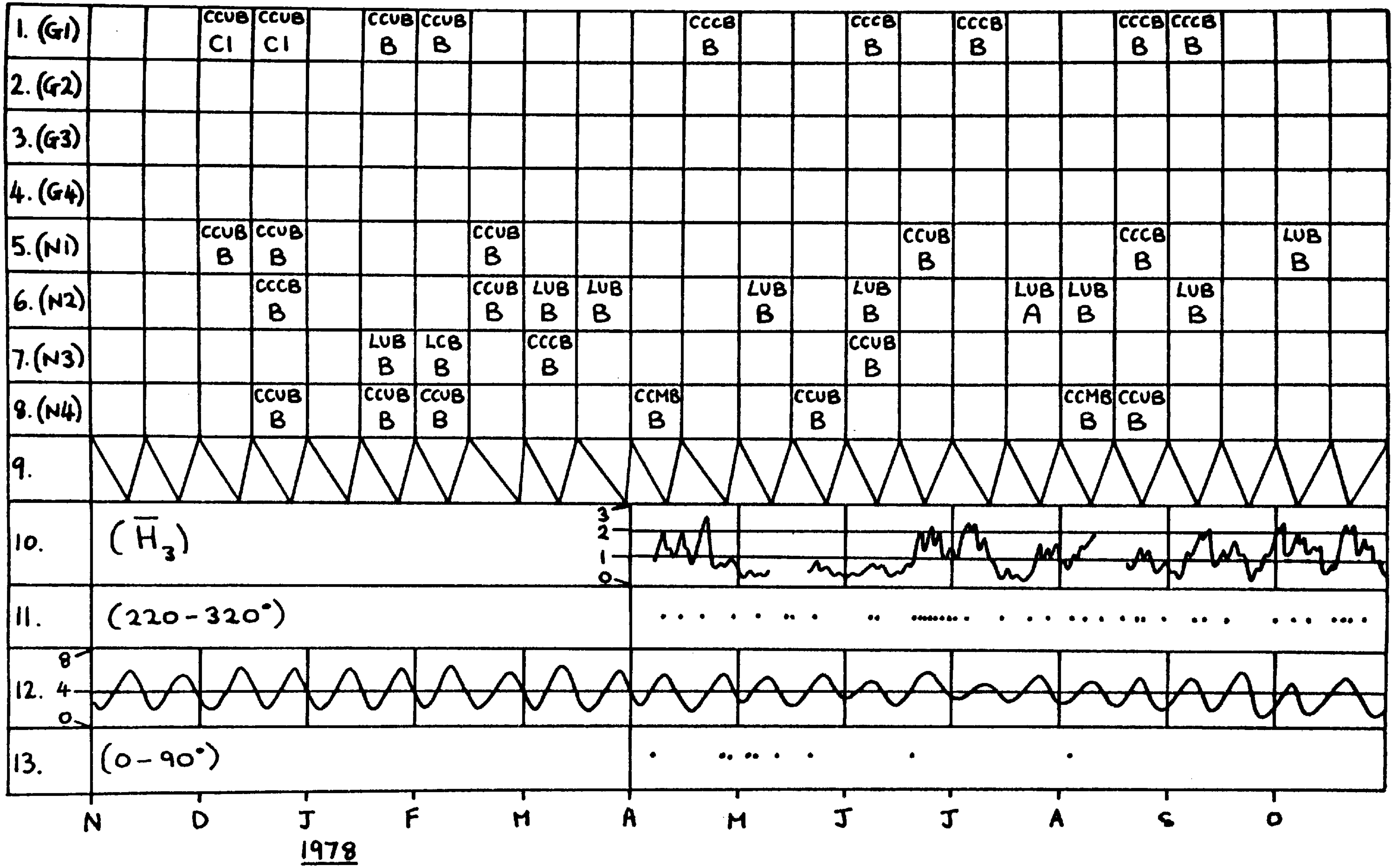
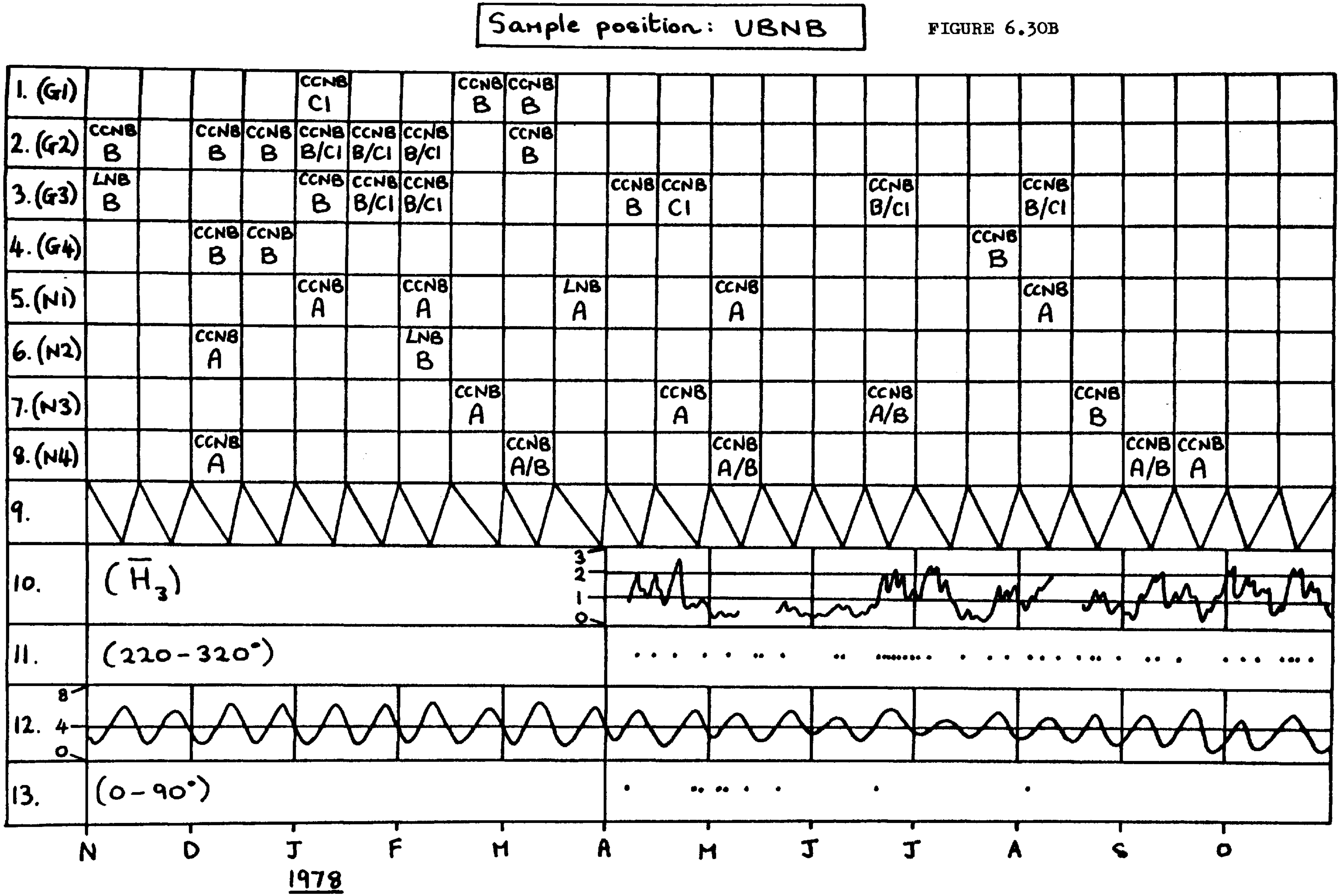


FIGURE 6.30B


Sample position: UBNB
1. (G1)
2. (G2)
3. (G3)
4. (G4)
5. (N1)
6. (N2)
7. (N3)
8. (N4)
9.
10. ($\bar{H}_3$)
11. (220–320°)
12.
13. (0–90°)
CCNB
LNB
B
C1
B/C1
A
A/B
N D J F M A M J J A S O
1978

Sample position: MBBT

FIGURE 6.30C

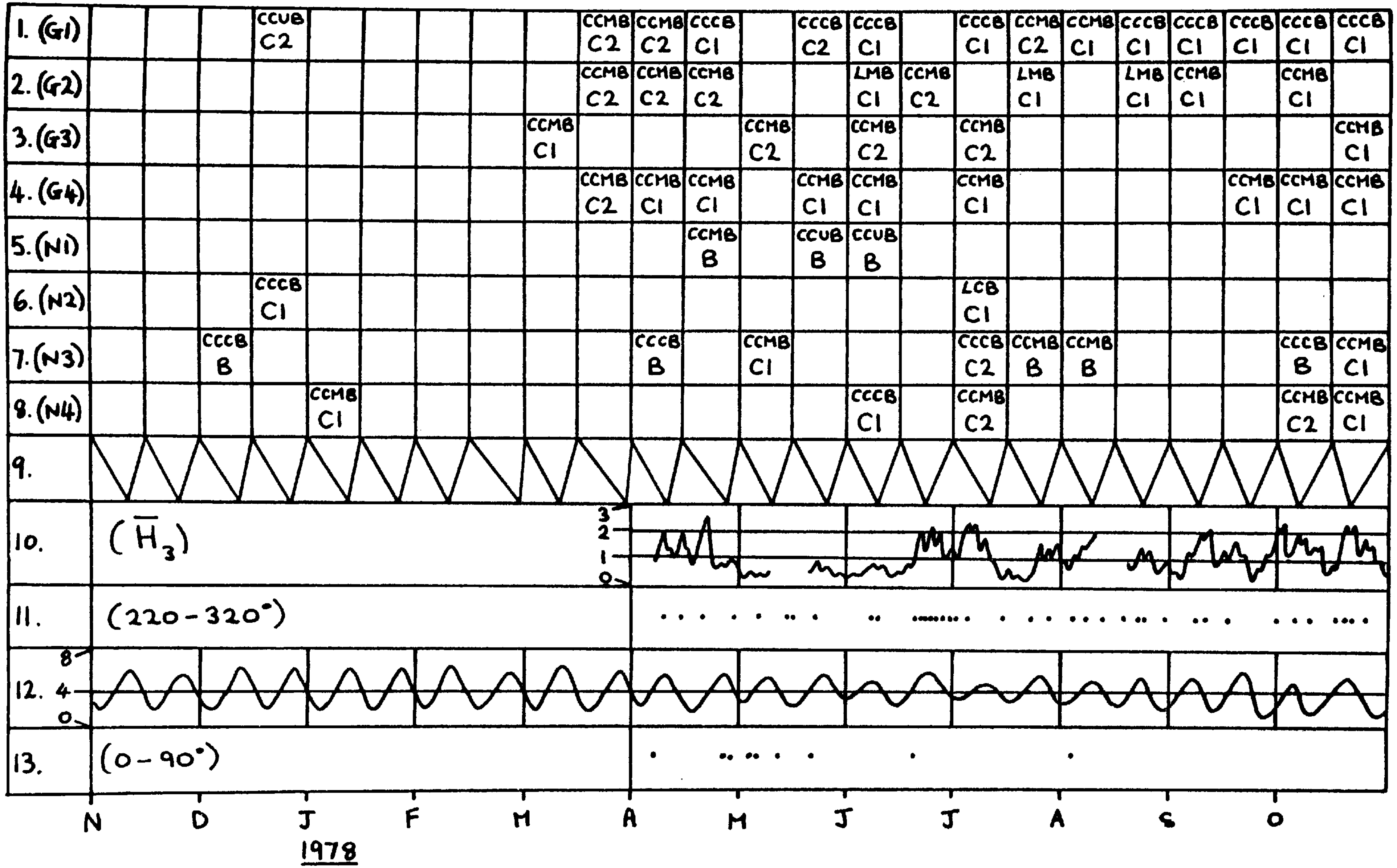
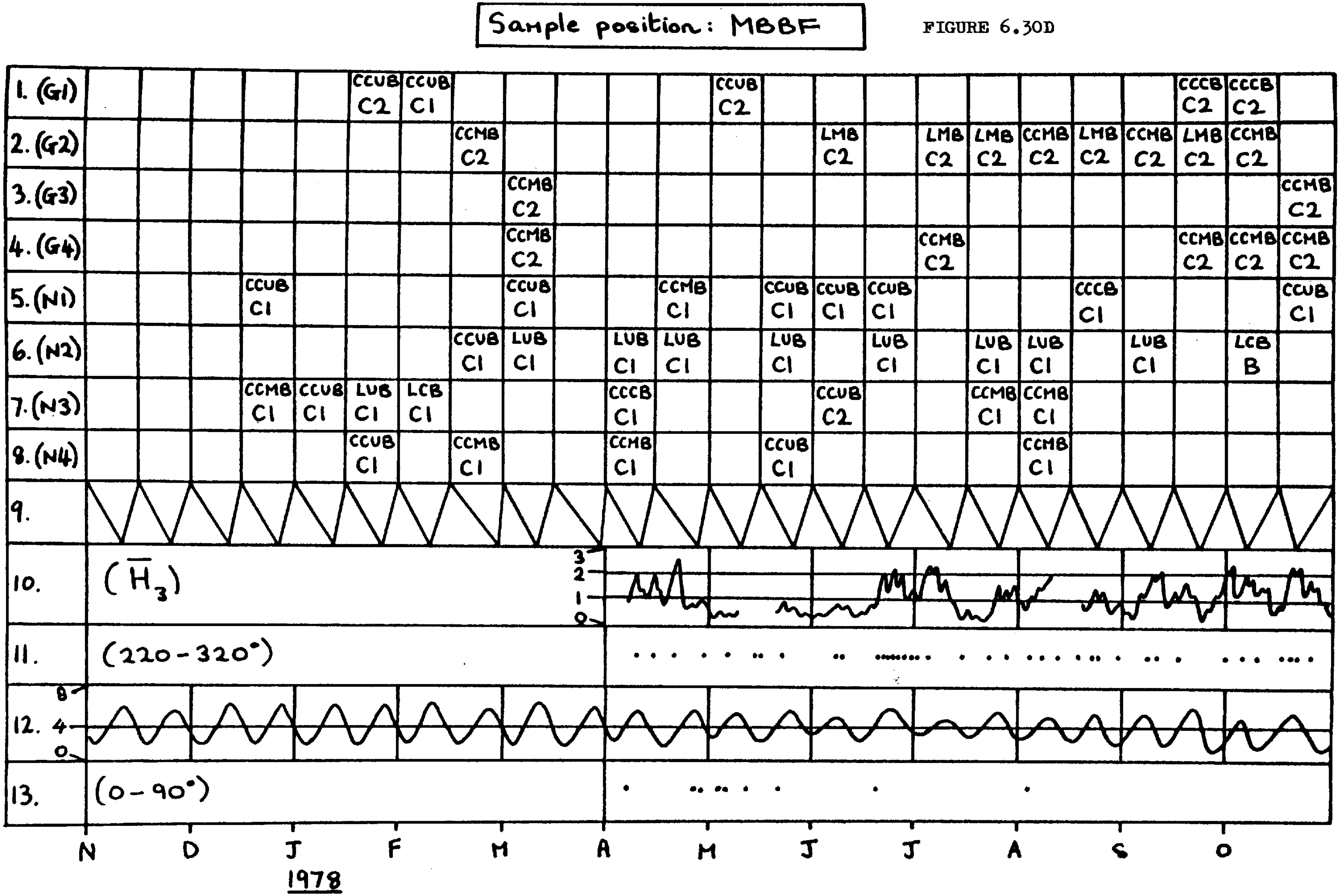


FIGURE 6.30D


Sample position: MBBF
1. (G1)
CCUB C2
CCUB C1
CCUB C2
CCCB C2
CCCB C2
2. (G2)
CCMB C2
LMB C2
LMB C2
LMB C2
CCMB C2
LMB C2
CCMB C2
LMB C2
CCMB C2
3. (G3)
CCMB C2
CCMB C2
4. (G4)
CCMB C2
CCMB C2
CCMB C2
CCMB C2
CCMB C2
5. (N1)
CCUB C1
CCUB C1
CCMB C1
CCUB C1
CCUB C1
CCUB C1
CCCB C1
CCUB C1
6. (N2)
CCUB C1
LUB C1
LUB C1
LUB C1
LUB C1
LUB C1
LUB C1
LUB C1
LUB C1
LCB B
7. (N3)
CCMB C1
CCUB C1
LUB C1
LCB C1
CCCB C1
CCUB C2
CCMB C1
CCMB C1
8. (N4)
CCUB C1
CCMB C1
CCMB C1
CCUB C1
CCMB C1
9.
10.
($\bar{H}_3$)
3
2
1
0
11.
(220-320°)
12.
8
4
0
13.
(0-90°)
N
D
J
F
M
A
M
J
J
A
S
O
1978

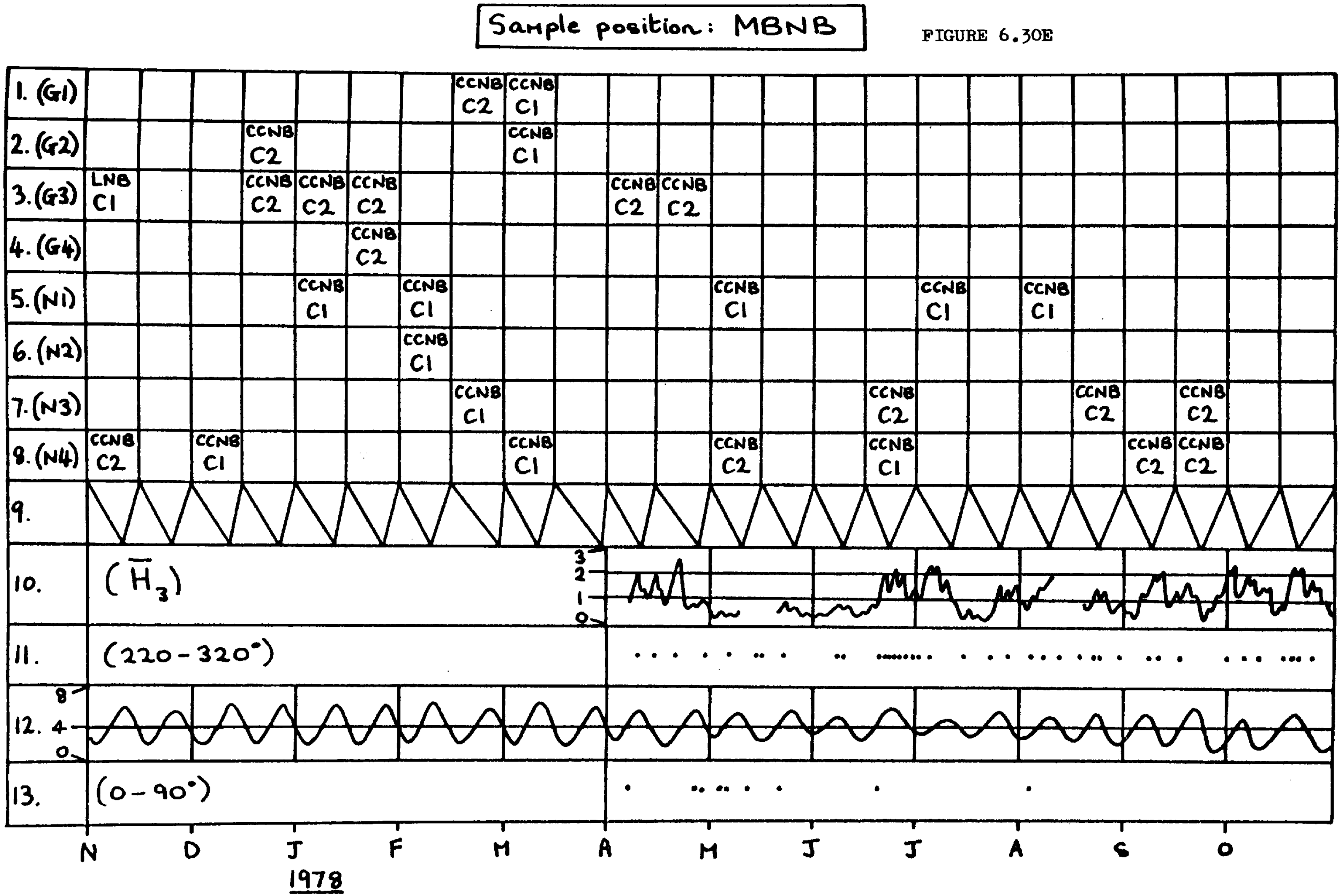
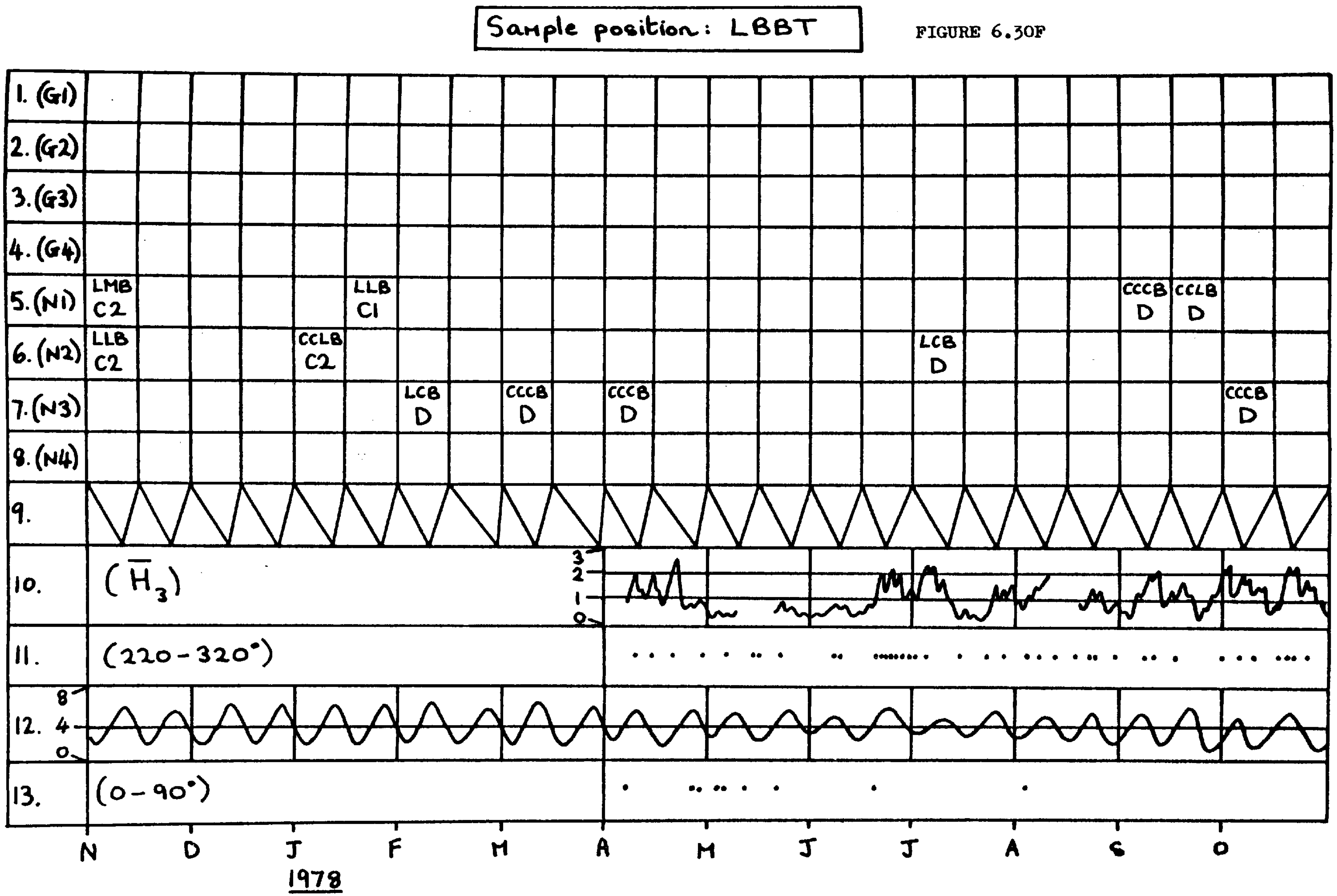

Sample position: MBNB
1. (G1)
2. (G2)
3. (G3)
4. (G4)
5. (N1)
6. (N2)
7. (N3)
8. (N4)
9.
10. ($\overline{H}_3$)
11. (220-320°)
12.
13. (0-90°)
CCNB C1
CCNB C2
LNB C1
N D J F M A M J J A S O
1978

FIGURE 6.30E

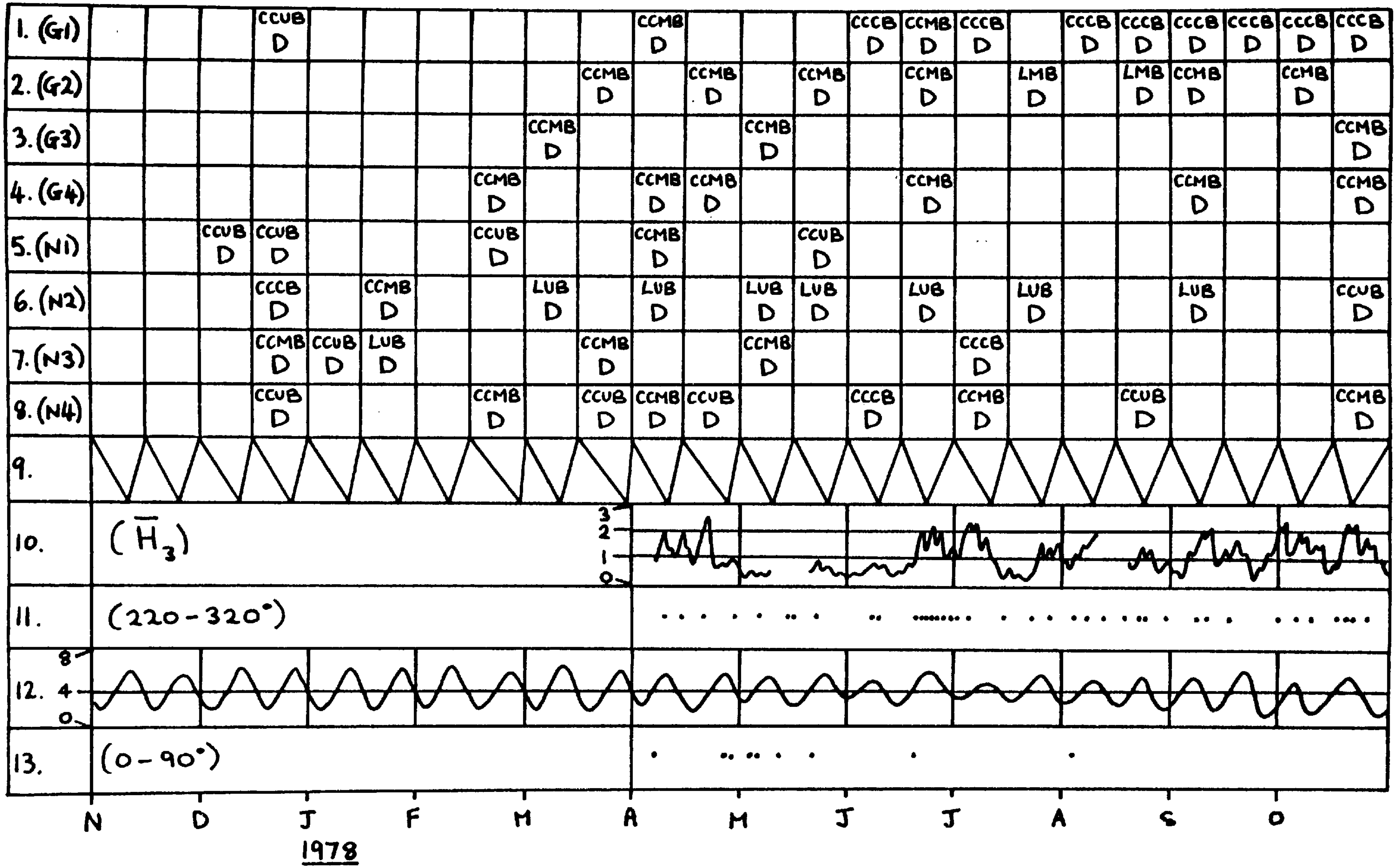
FIGURE 6.30F



Sample position: LBBT
1. (G1)
2. (G2)
3. (G3)
4. (G4)
5. (N1)
6. (N2)
7. (N3)
8. (N4)
9.
10.
11.
12.
13.
LMB C2
LLB C1
CCCB D
CCLB D
LLB C2
CCLB C2
LCB D
LCB D
CCCB D
CCCB D
CCCB D
(H̄3)
3
2
1
0
(220-320°)
8
4
0
(0-90°)
N
D
J
F
M
A
M
J
J
A
S
O
1978

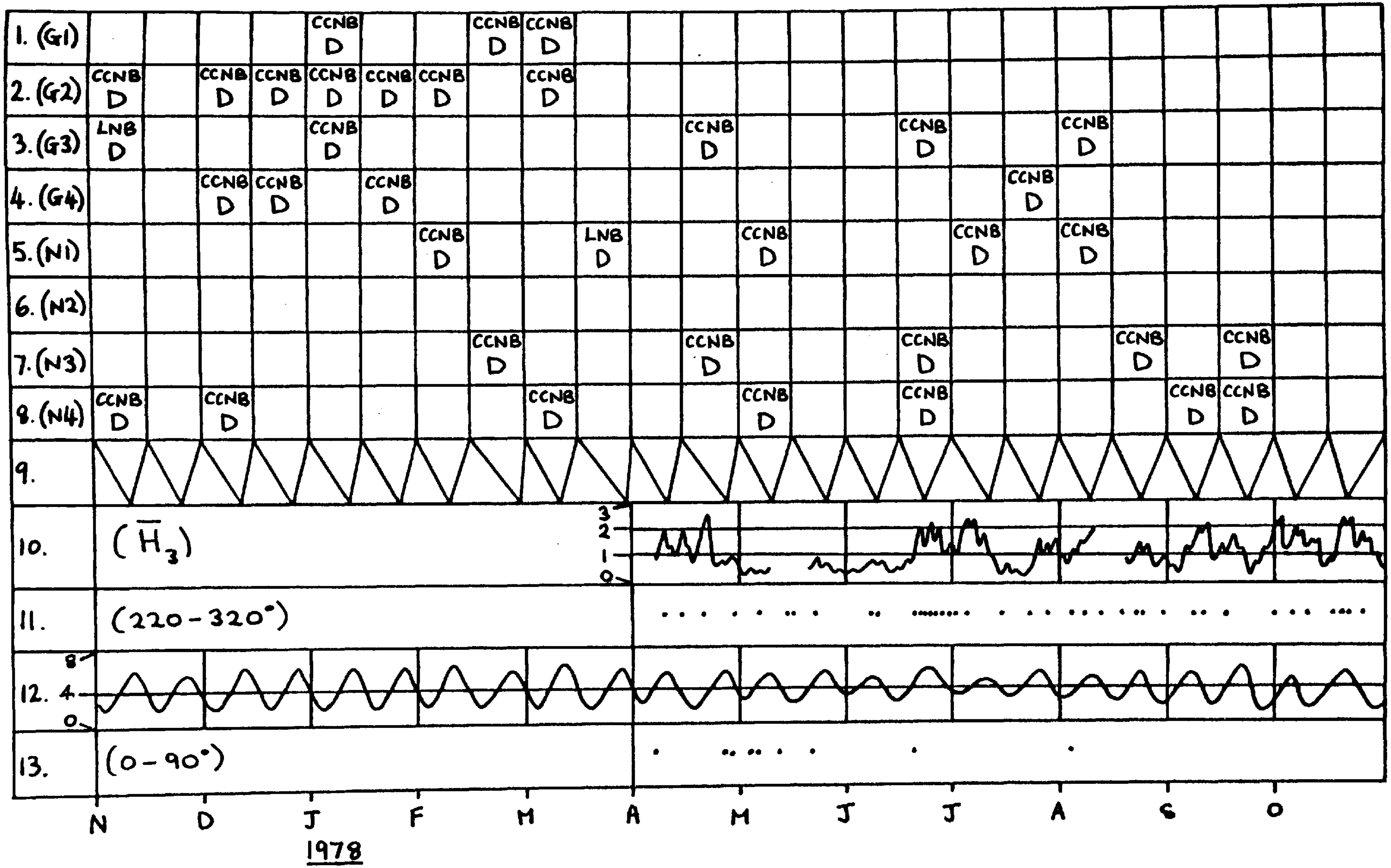
Sample position: LBWB

FIGURE 6.30G



Sample position: LBNB

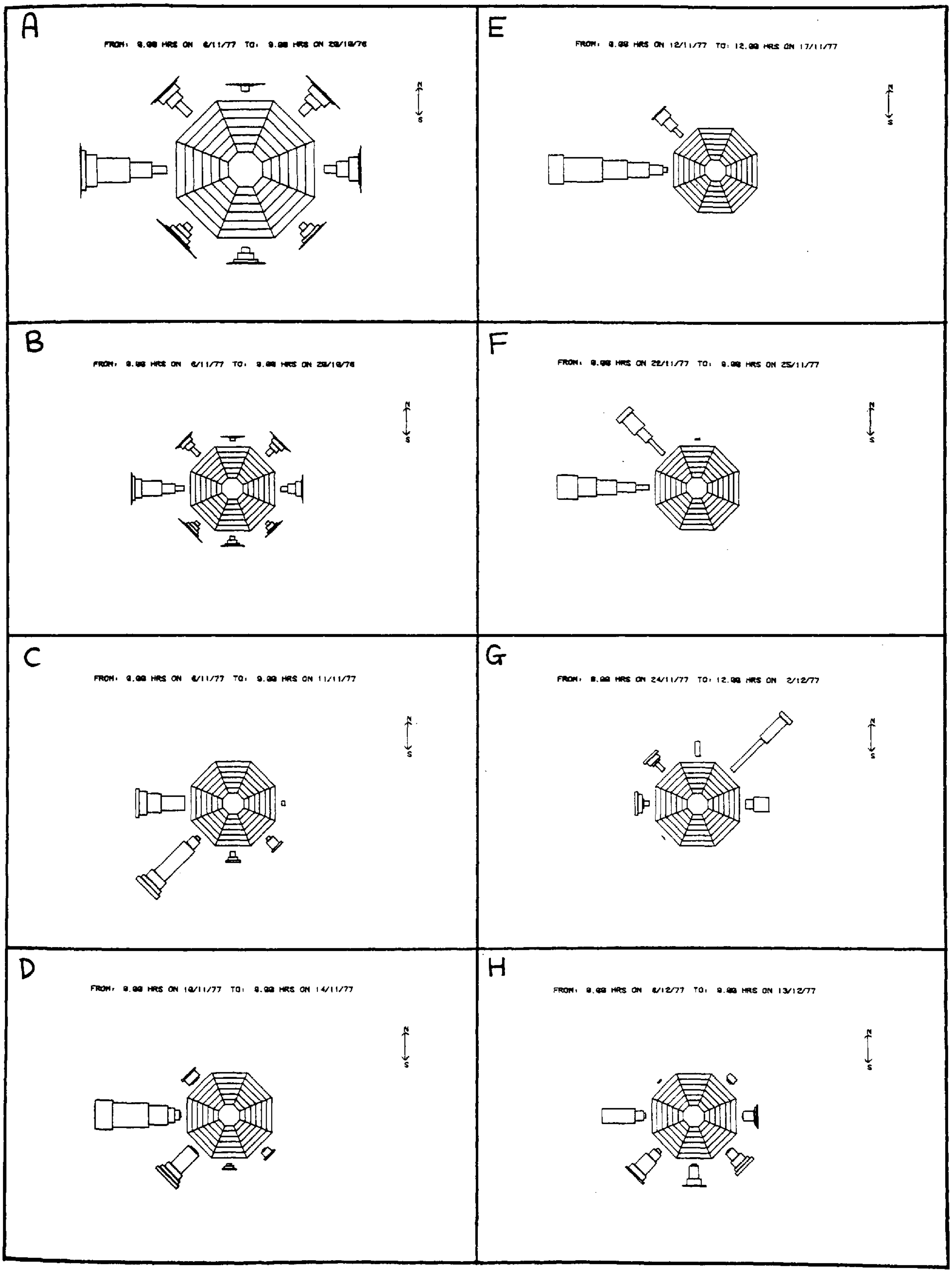
FIGURE 6.30H



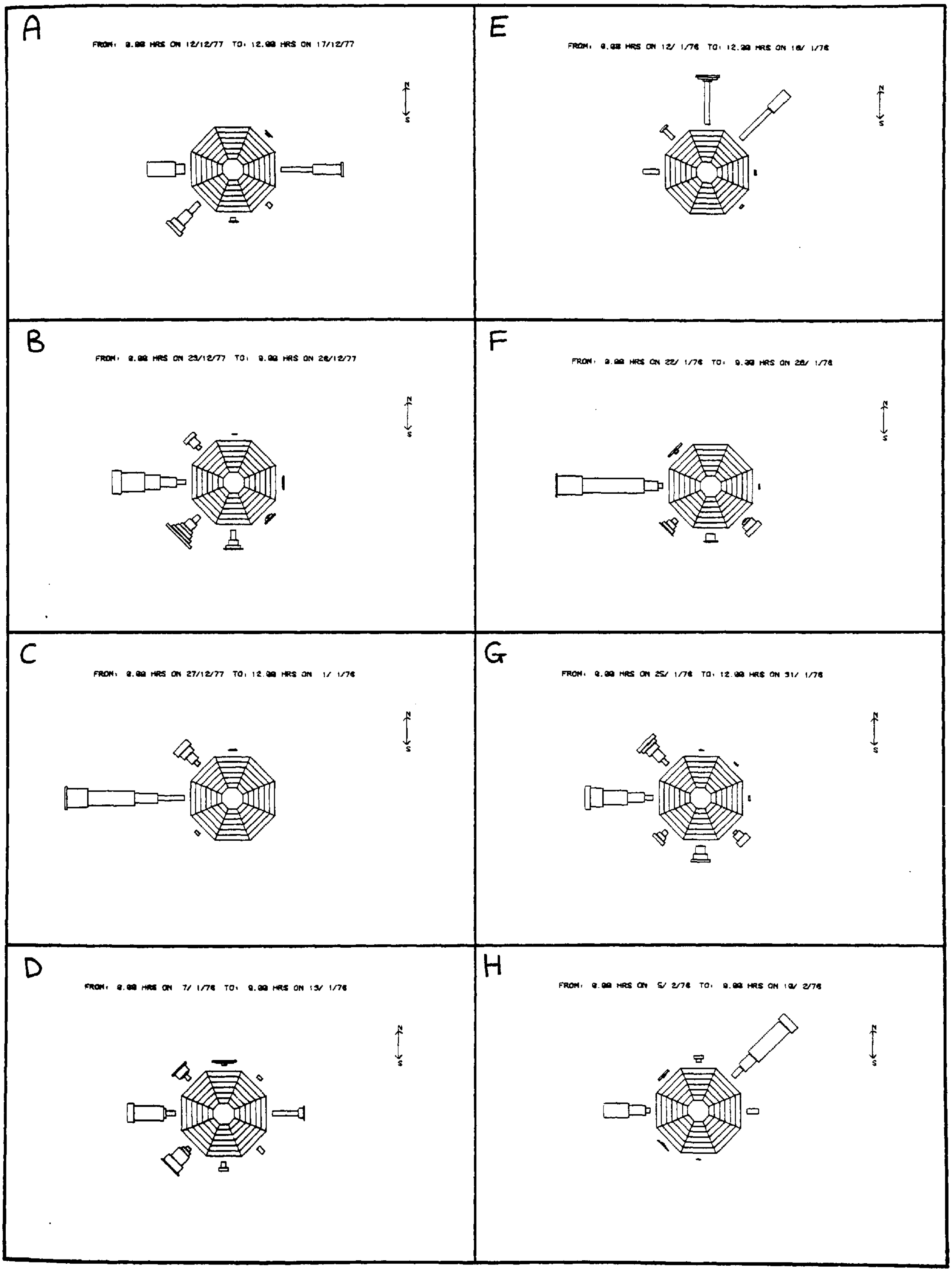
FIGURES 6.31AA-FF <u>WIND ROSES FOR THE STUDY PERIOD 8.11.77 TO 20.10.78</u>

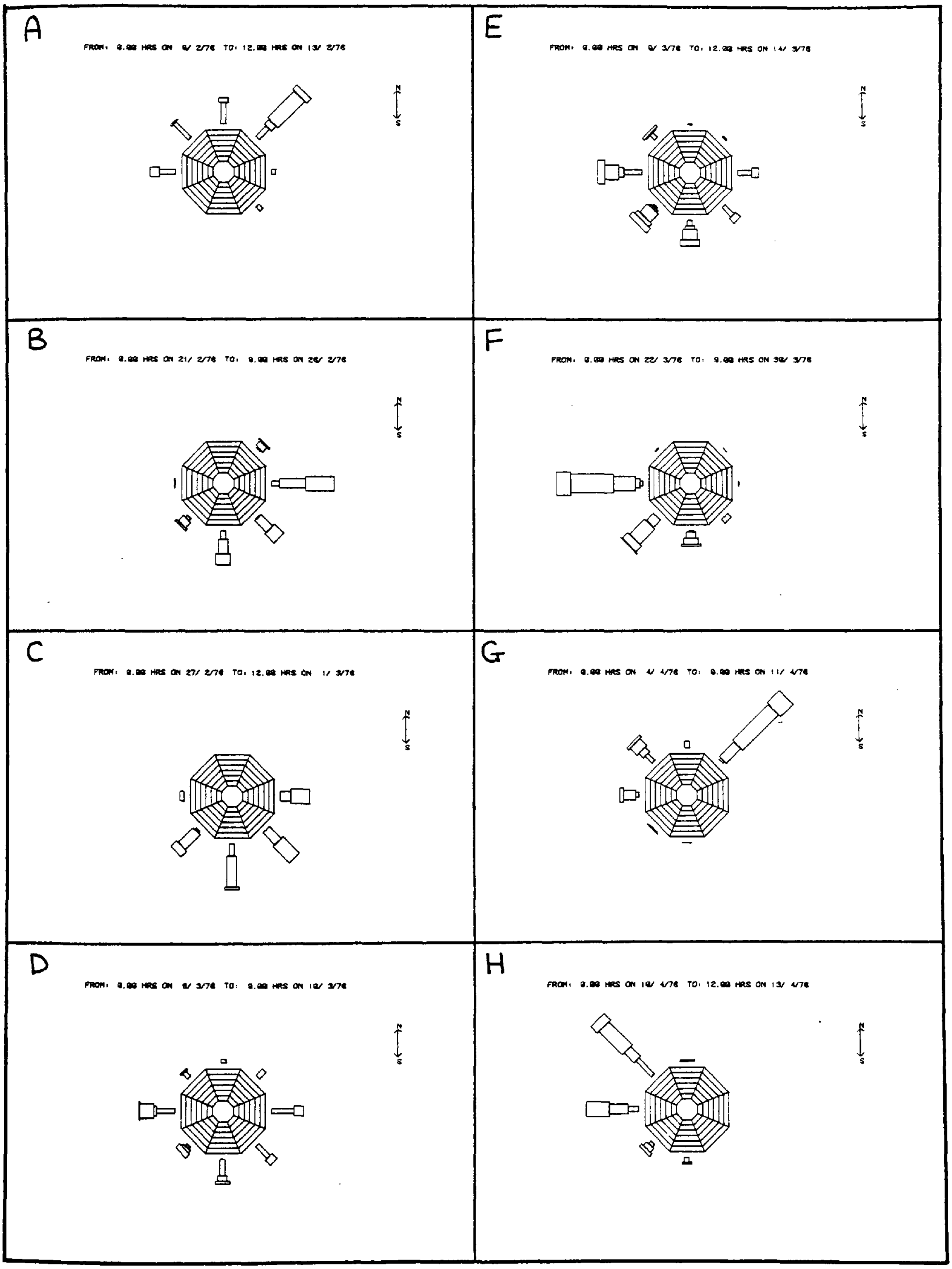
These wind roses were constructed for periods of time before and after sampling (see section 6.8.2 of the text). The 'spider's web' forming the centre of each rose was designed to ease visual interpretation. It acts partially as a compass. In addition, within each of the eight directional sectors the seven parallel lines correspond in width to columns making up the 'telescopic' petals of each rose. Wind speeds represented in the diagrams increase in velocity as the widths of the columns increase. The narrowest column represents the percentage occurrence of mean hourly wind speeds between 1-6 knots/sec. (Beaufort Force 1-2). The second narrowest column represents mean hourly wind speeds between 7-10 knots/sec. (Force 3). Thereafter, each increase in width represents an increase of 1 force unit on the Beaufort Scale, until the widest column is reached which represents speeds $\geqslant$ Force 8 ($\geqslant$ 34 knots/sec.).

WIND ROSES 6.31A

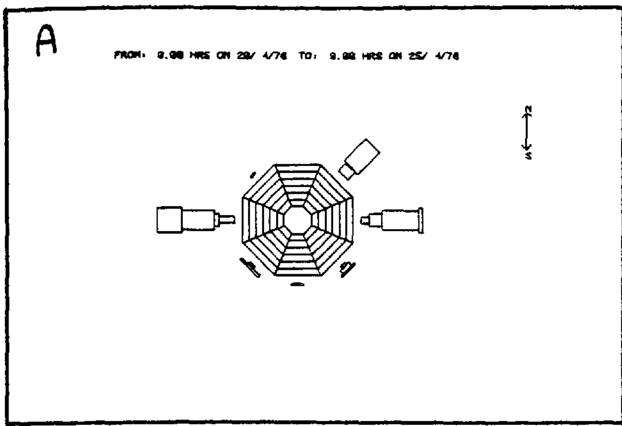


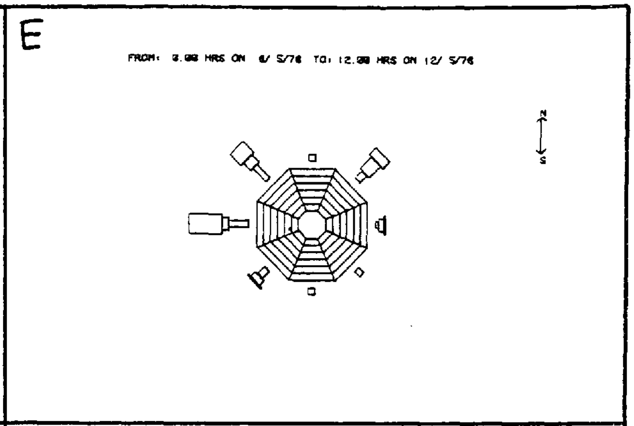
WIND ROSES 6.31B

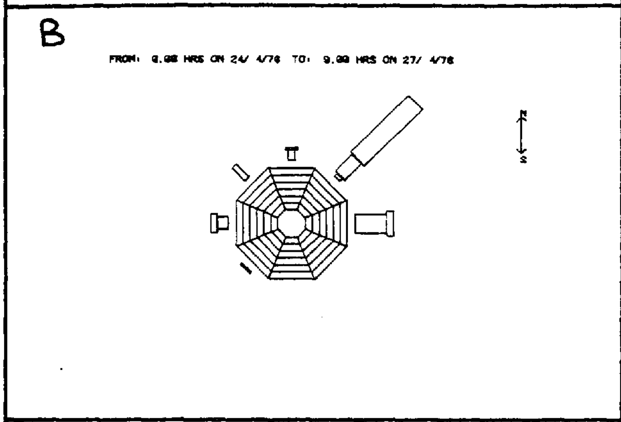


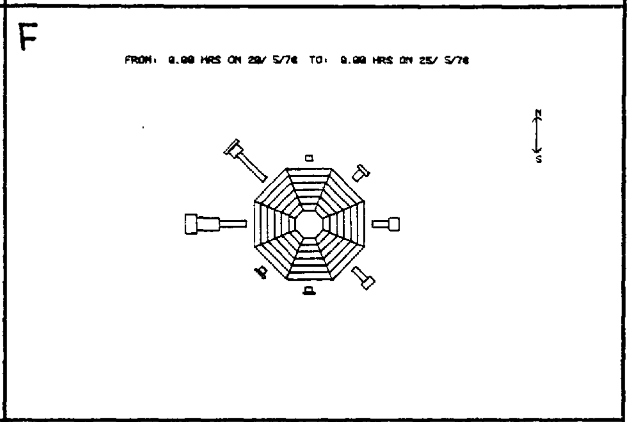

A
FROM: 9.00 HRS ON 9/ 2/76 TO: 12.00 HRS ON 13/ 2/76
N
S
E
FROM: 9.00 HRS ON 9/ 3/76 TO: 12.00 HRS ON 14/ 3/76
N
S
B
FROM: 9.00 HRS ON 21/ 2/76 TO: 9.00 HRS ON 26/ 2/76
N
S
F
FROM: 9.00 HRS ON 22/ 3/76 TO: 9.00 HRS ON 30/ 3/76
N
S
C
FROM: 9.00 HRS ON 27/ 2/76 TO: 12.00 HRS ON 1/ 3/76
N
S
G
FROM: 9.00 HRS ON 4/ 4/76 TO: 9.00 HRS ON 11/ 4/76
N
S
D
FROM: 9.00 HRS ON 6/ 3/76 TO: 9.00 HRS ON 10/ 3/76
N
S
H
FROM: 9.00 HRS ON 10/ 4/76 TO: 12.00 HRS ON 13/ 4/76
N
S

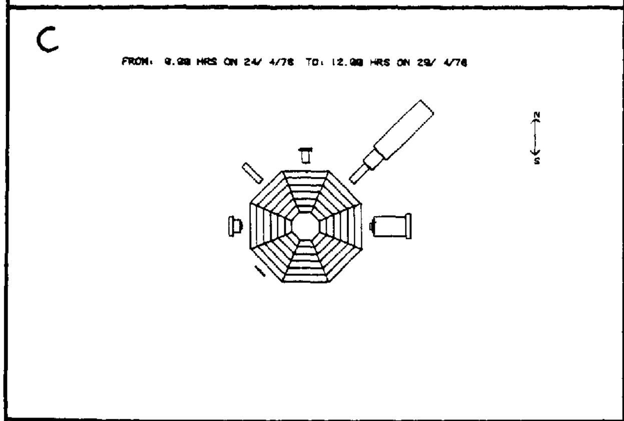
WIND ROSES 6.31D

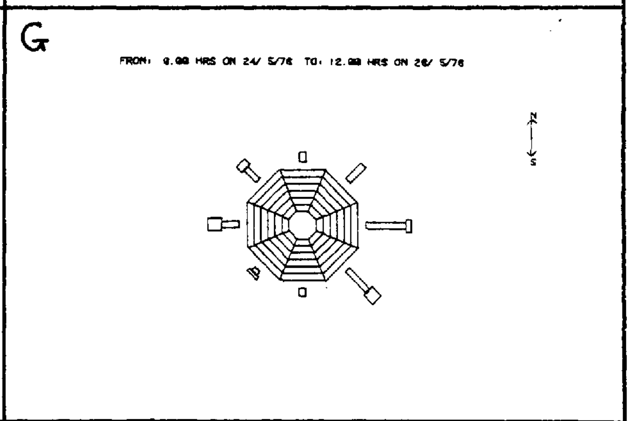


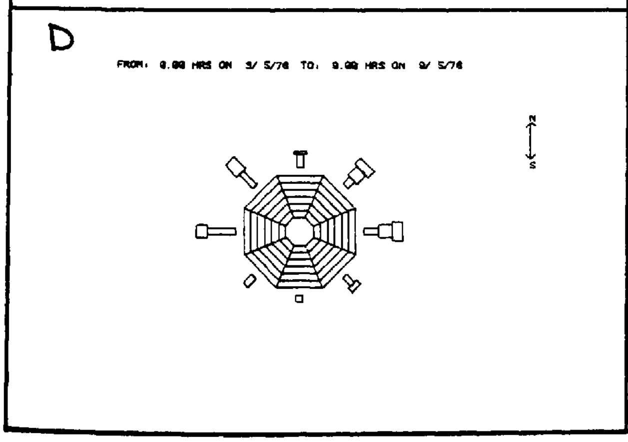


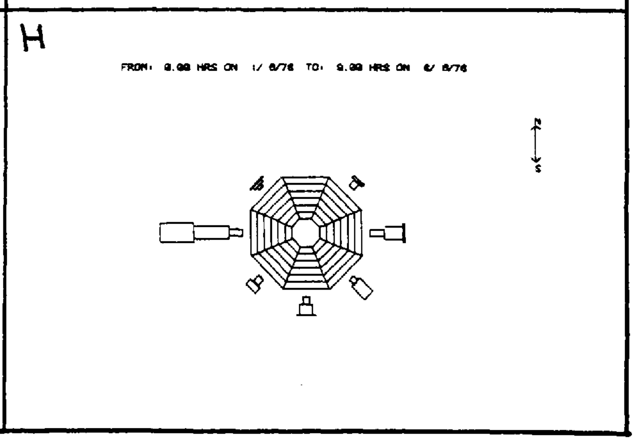




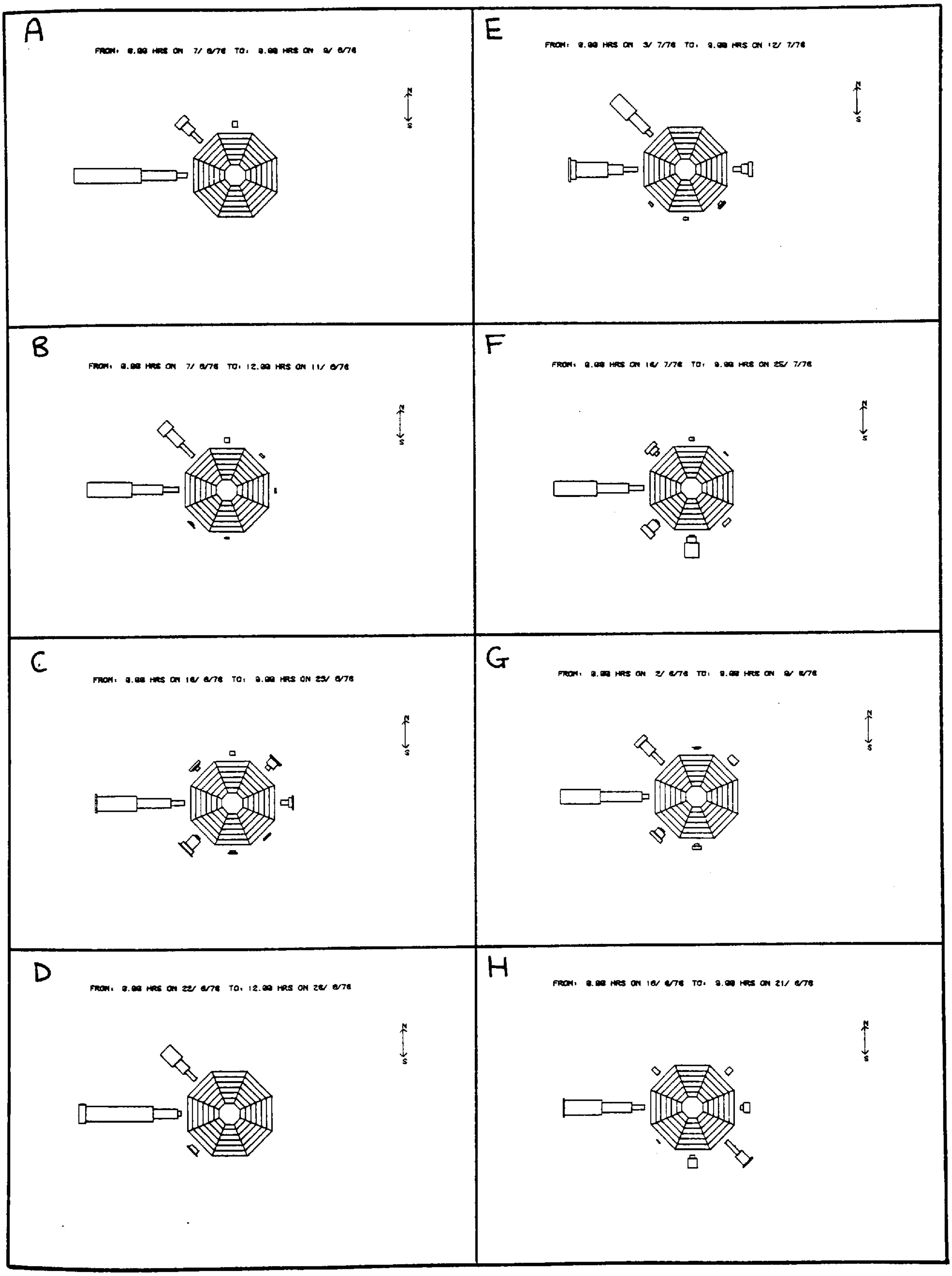








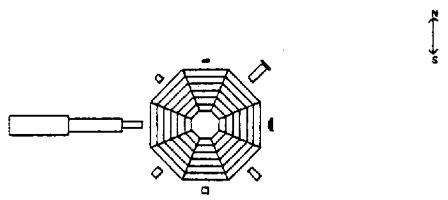
WIND ROSES 6.31E



WIND ROSES 6.31F

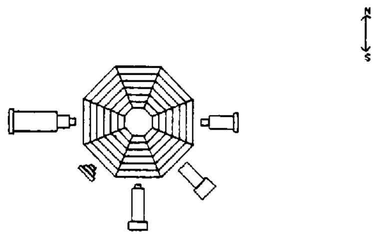
A

FROM: 9.00 HRS ON 20/ 6/76 TO: 9.00 HRS ON 23/ 6/76



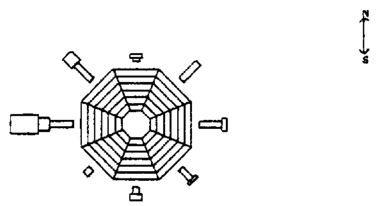
E

FROM: 9.00 HRS ON 5/10/76 TO: 12.00 HRS ON 6/10/76



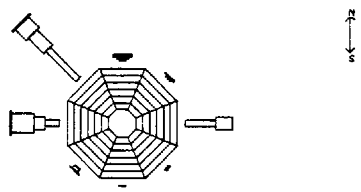
B

FROM: 9.00 HRS ON 1/ 9/76 TO: 9.00 HRS ON 7/ 9/76



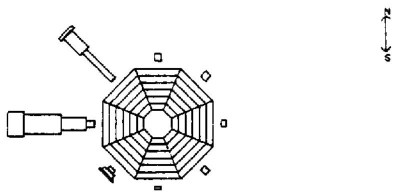
F

FROM: 9.00 HRS ON 13/10/76 TO: 9.00 HRS ON 20/10/76



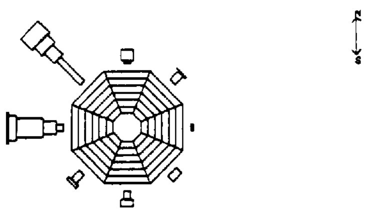
C

FROM: 9.00 HRS ON 14/ 9/76 TO: 9.00 HRS ON 21/ 9/76



D

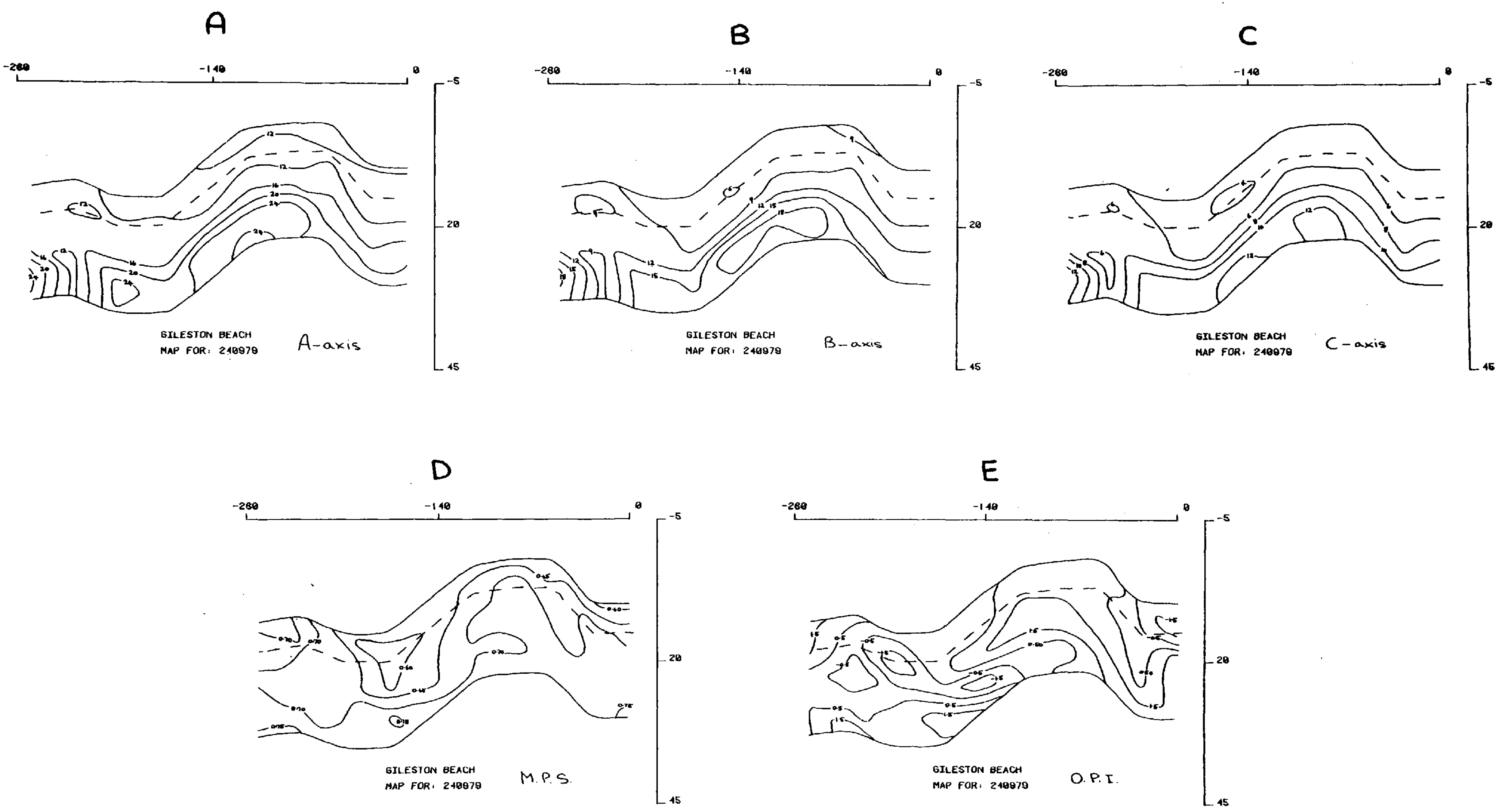
FROM: 9.00 HRS ON 30/ 9/76 TO: 9.00 HRS ON 6/10/76



FIGURES 6.32A-H, 6.33A-H, 6.34A-H, 6.35A-H <u>CONTOURED PLOTS</u>

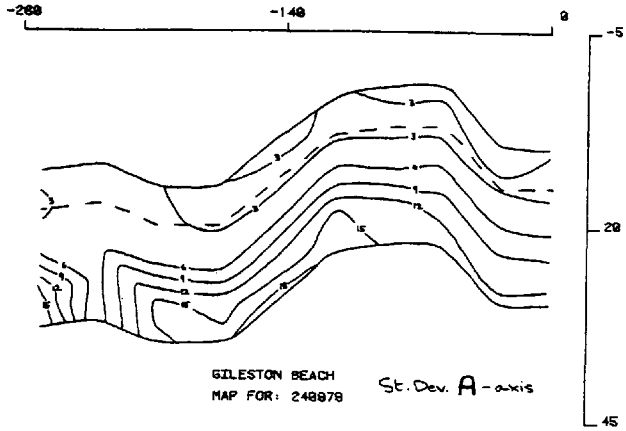
These have been constructed according to the procedures outlined in section 6.9.1 (for Gileston beach) and section 6.9.2 (for Nash beach). Plots are essentially plan views, the upper boundary lying near the ridge crest, and the lower boundary approximating the lower beach margin. Plots showing A, B and C-axis data display contours in several centimetre intervals, whereas MPS and OPI plots display contours in the dimensionless units associated with these parameters. Horizontal (along-beach) and vertical (down-beach) axes (drawn by the computer program) are shown in metres.

6.32

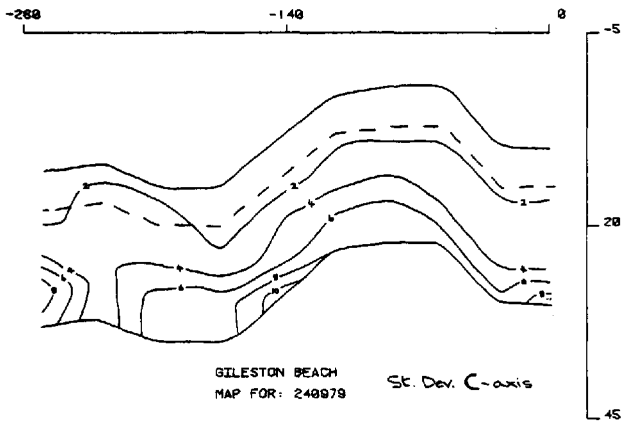

A
B
C
D
E
GILESTON BEACH
MAP FOR: 240979
A-axis
B-axis
C-axis
M.P.S.
O.P.I.
-260
-140
0
-5
20
45

6.32

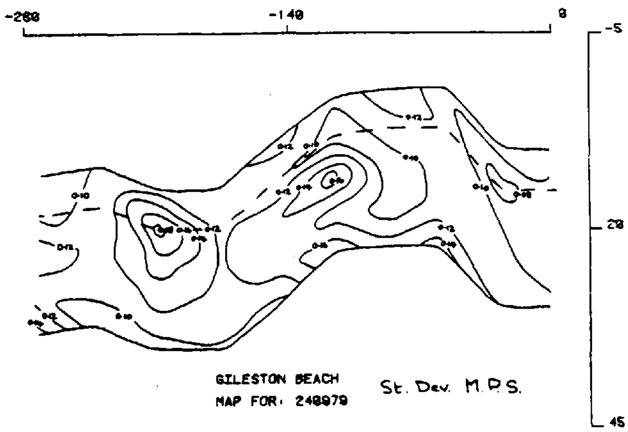
F


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 240979
St. Dev. A-axis

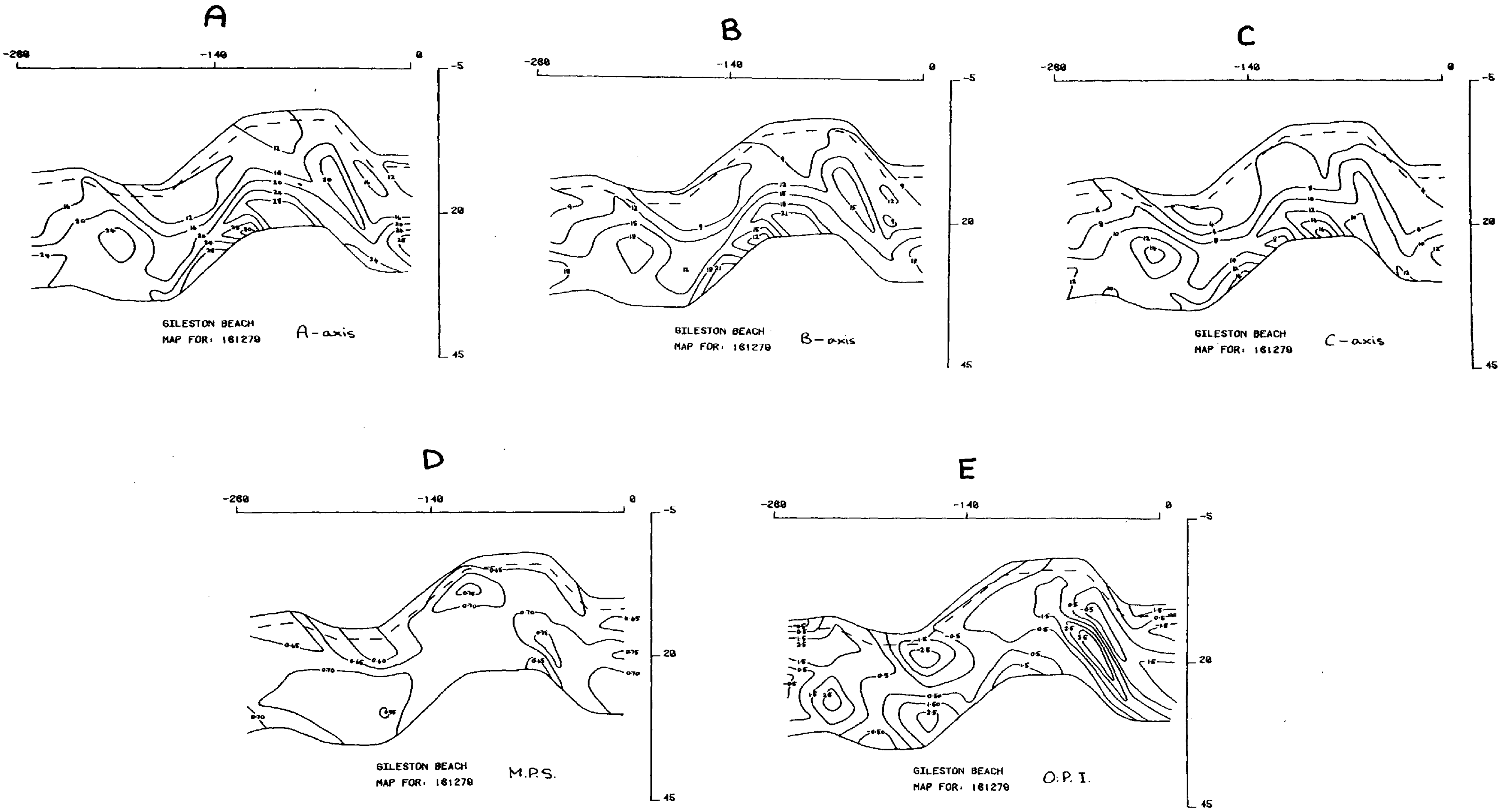
G


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 240979
St. Dev. C-axis

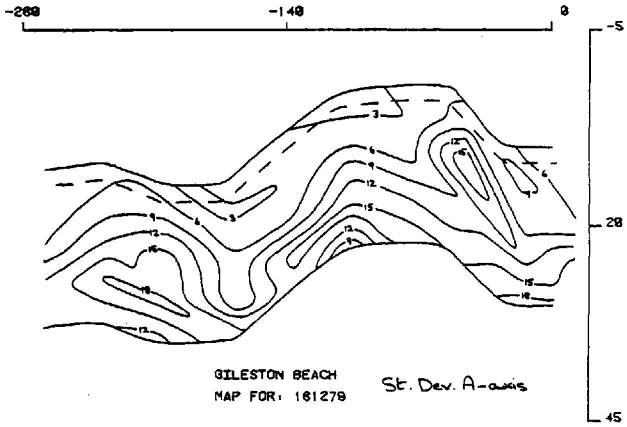
H


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 240979
St. Dev. M.P.S.

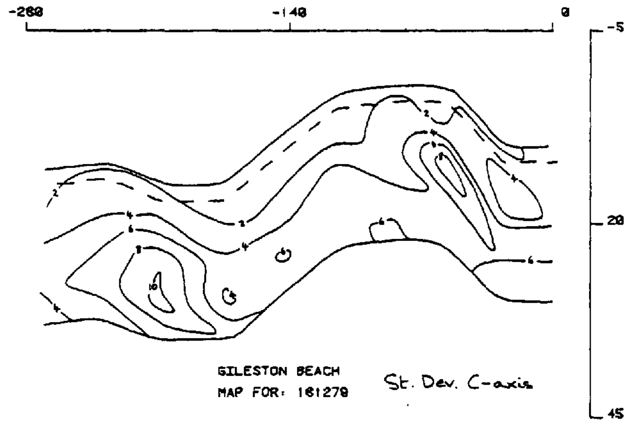
6.33


A
B
C
D
E
-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 161279
A-axis
B-axis
C-axis
M.P.S.
O.P.I.

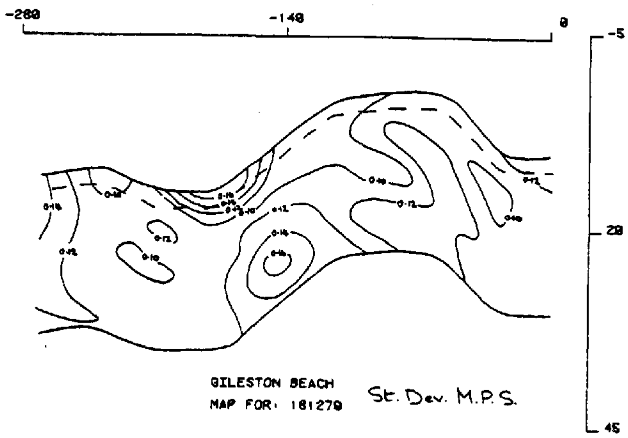
6.33 F


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 161279
St. Dev. A-axis

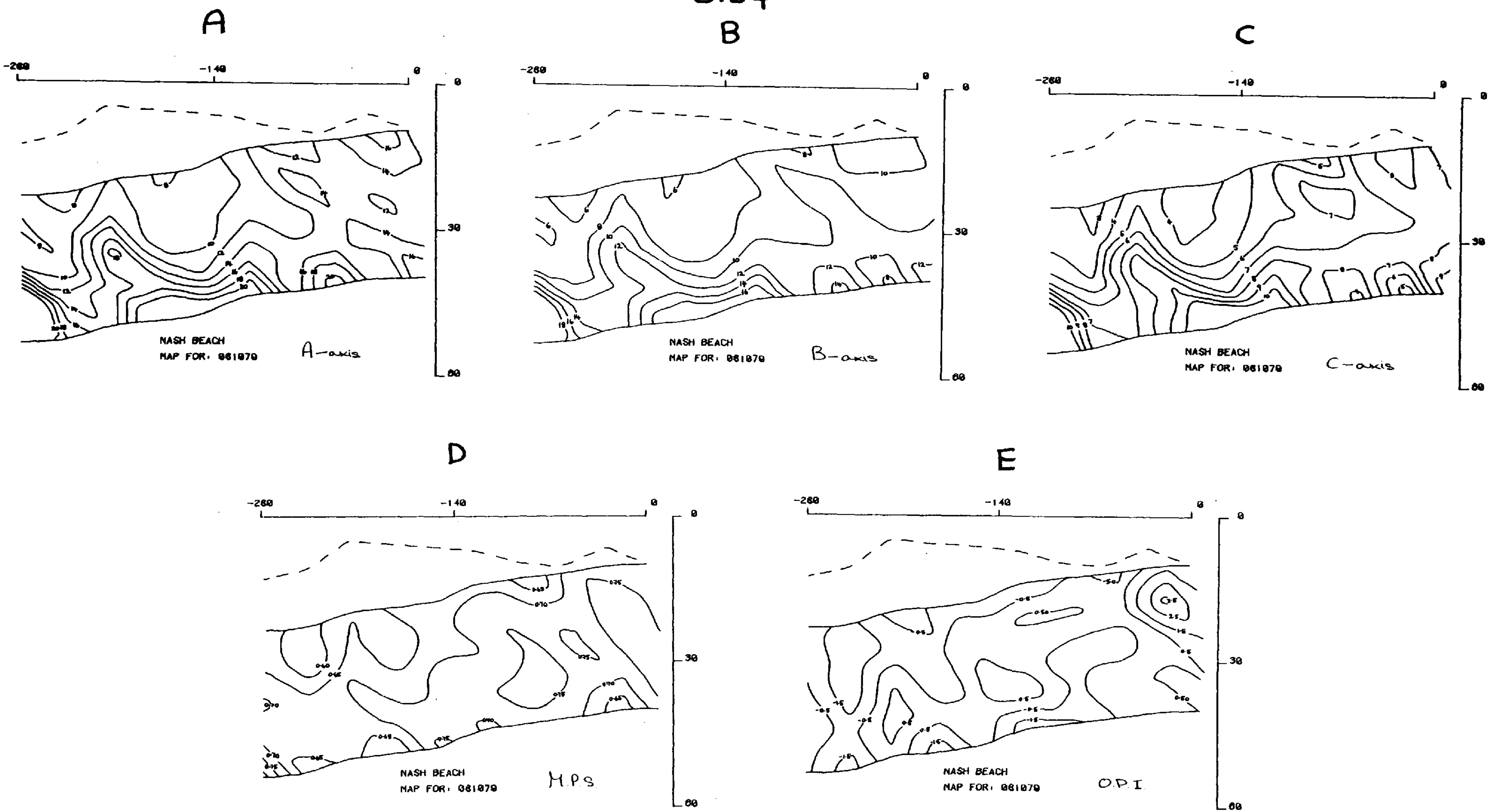
G


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 161279
St. Dev. C-axis

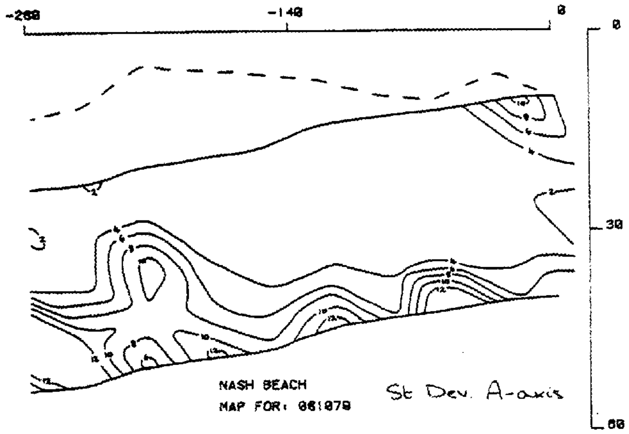
H


-280
-140
0
-5
20
45
GILESTON BEACH
MAP FOR: 161279
St. Dev. M.P.S.

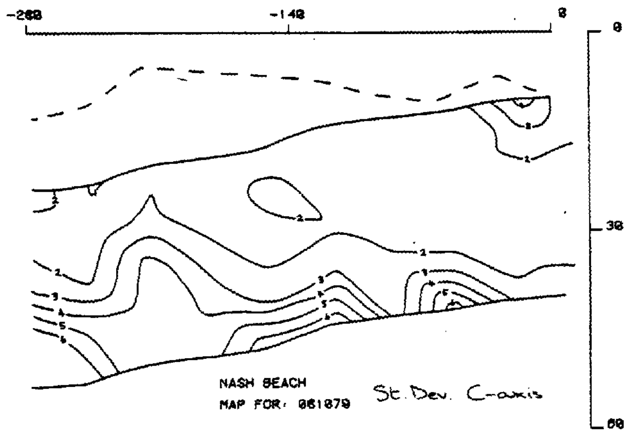
6.34


A
B
C
D
E
-280
-140
0
30
60
NASH BEACH
MAP FOR: 061079
A-axis
B-axis
C-axis
M.P.S
O.P.I

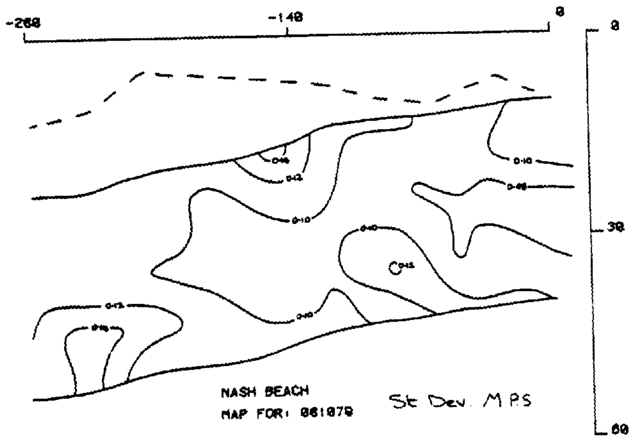
6.34 F


-260
-140
0
0
30
60
NASH BEACH
MAP FOR: 061079
St Dev. A-axis

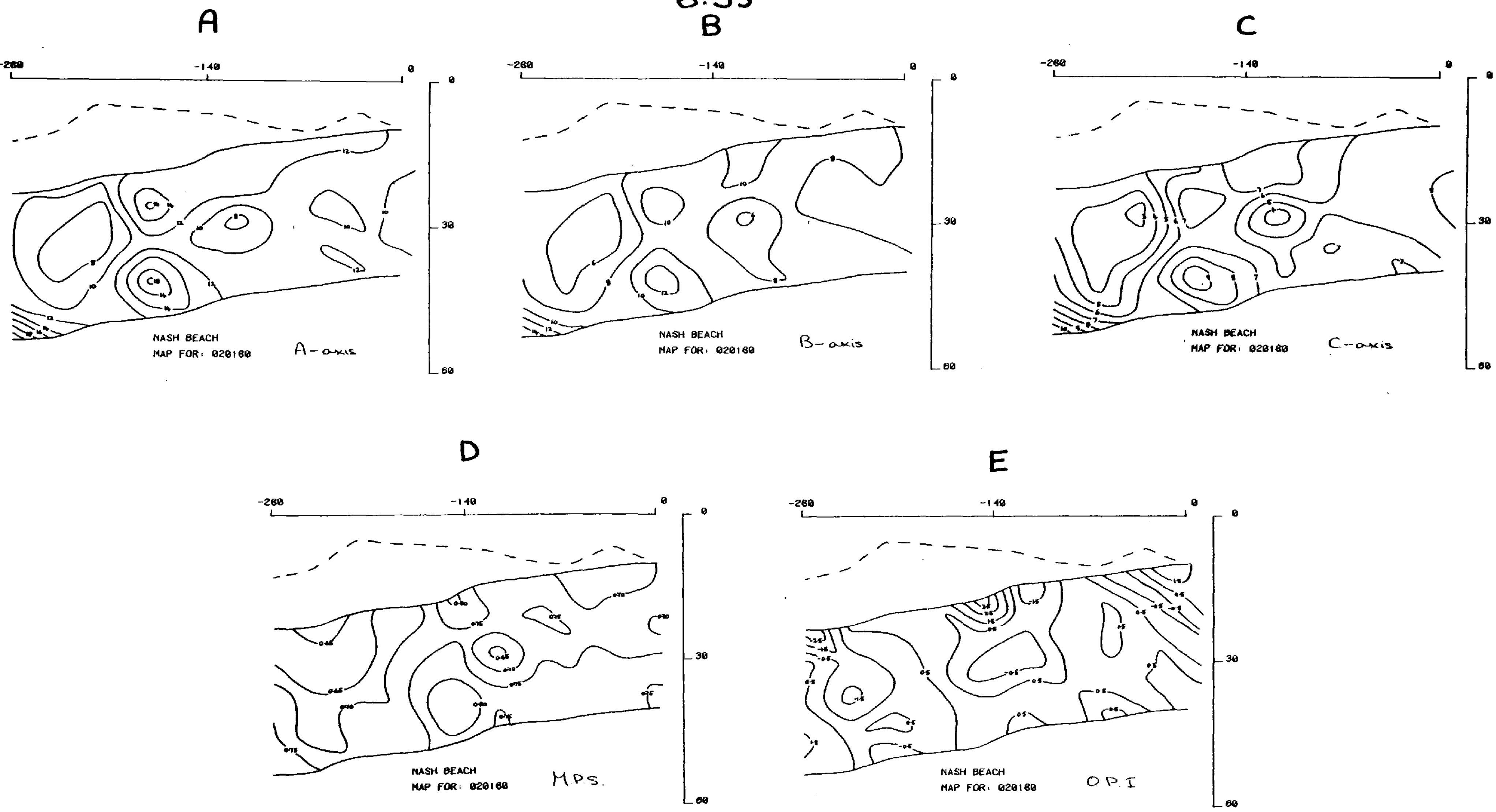
G


-260
-140
0
0
30
60
NASH BEACH
MAP FOR: 061079
St. Dev. C-axis

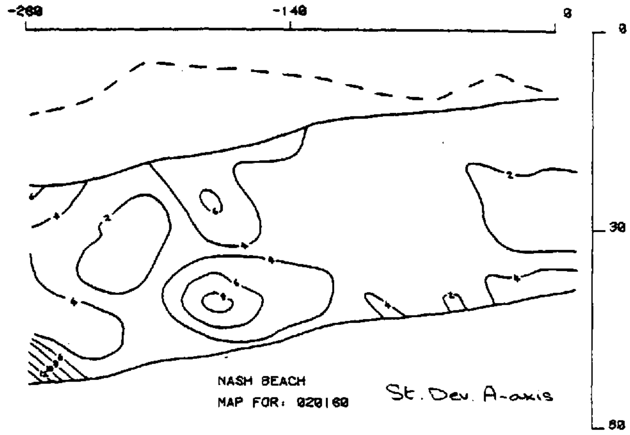
H


-260
-140
0
0
30
60
NASH BEACH
MAP FOR: 061079
St Dev. M.P.S

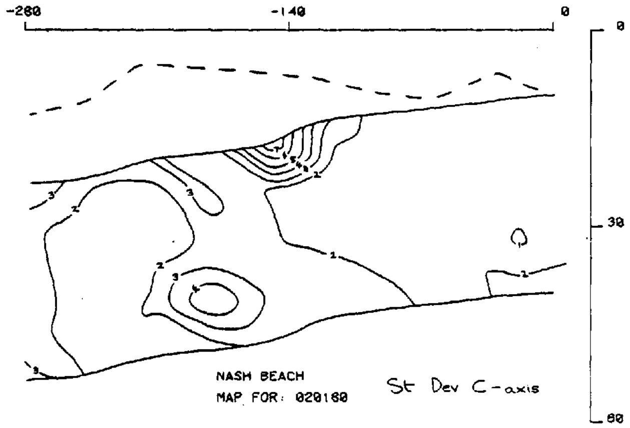
6.35


A
B
C
D
E
NASH BEACH
MAP FOR: 020160
A-axis
B-axis
C-axis
MPS.
OPI
-260
-140
0
30
60

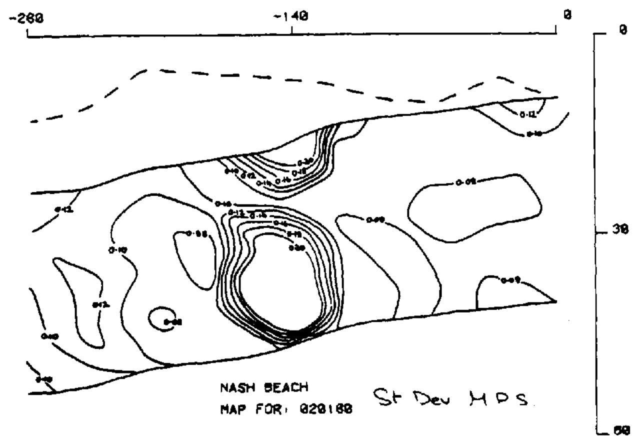
6.35 F

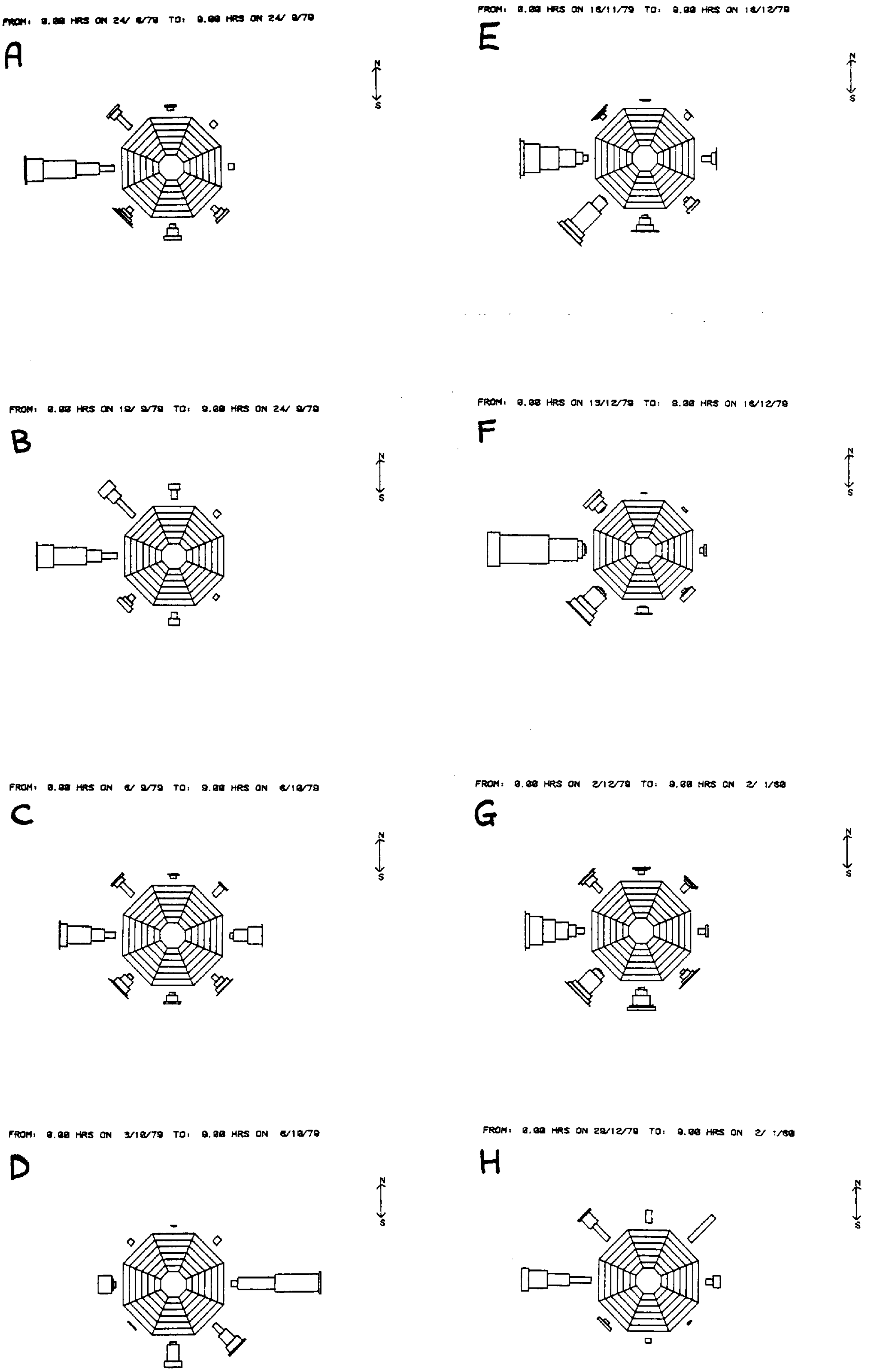

-280
-140
0
0
30
60
NASH BEACH
MAP FOR: 020180
St. Dev. A-axis

G


-280
-140
0
0
30
60
NASH BEACH
MAP FOR: 020180
St Dev C-axis

H


-280
-140
0
0
30
60
NASH BEACH
MAP FOR: 020180
St Dev MPS



FIGURES 6.36A-H <u>WIND ROSES FOR THE CONTOURED PLOTS</u> (Figs: 6.31-35)
(See Figs: 6.31AA-FF and section 6.8.2)

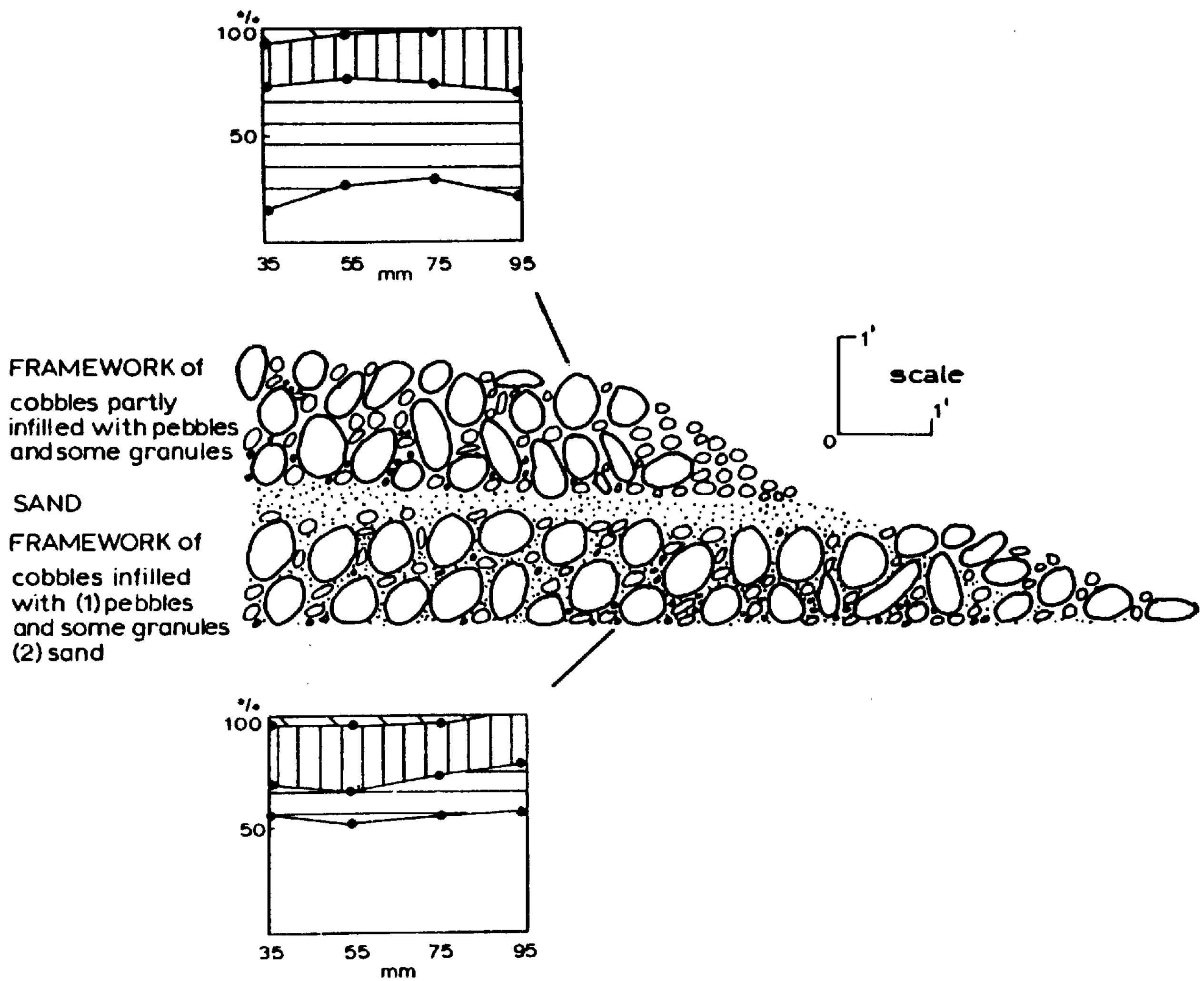


FIG. 27.—Section of a trench cut into the seaward end of the Cwm Nash storm beach. The figure also shows the percentages of various fragments shapes in the stipulated size ranges; the ornament is as for figure 4.

FIGURE 6.37 BLUCK'S (1967) FIGURE 27 OF CWM NASH BEACH

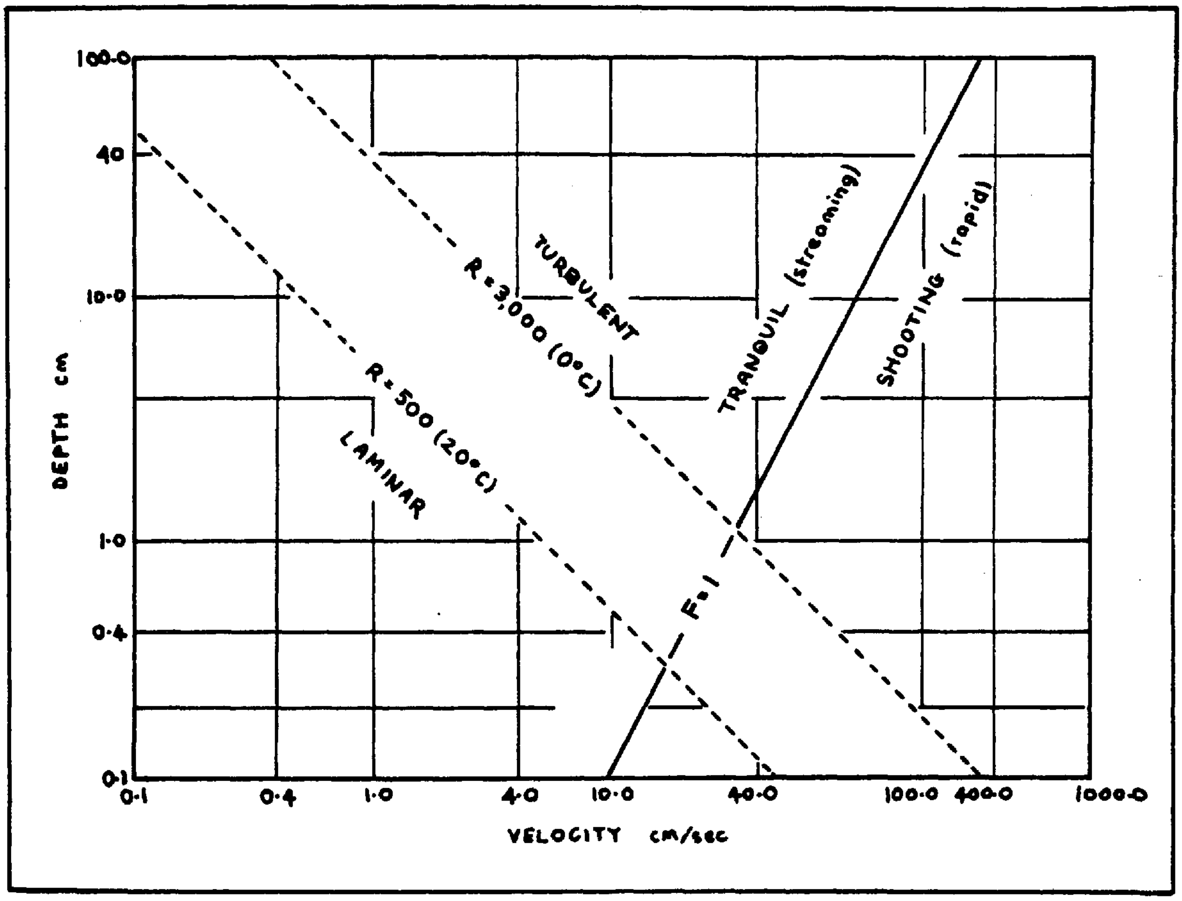


FIGURE 7.1 RELATIONSHIP BETWEEN REYNOLDS (R) AND FROUDE (F) NUMBERS

Reproduced from SUNDBORG, A. "The River Klaralvern" (1956)
Fig: 1, page: 138, Geografiska Annaler, 38, 127-316

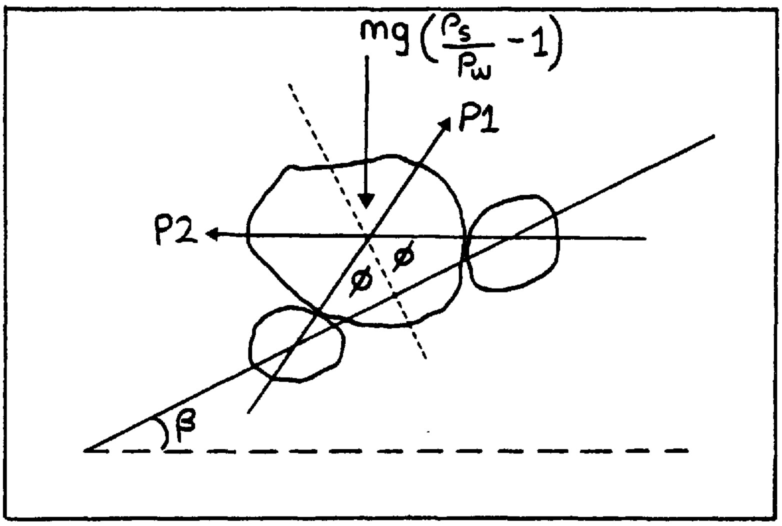


FIGURE 7.2 THE FORCES ACTING ON AN EXPOSED BEACH PEBBLE

(See section 7.3.4 of text for an explanation of the mathematical symbols used here)

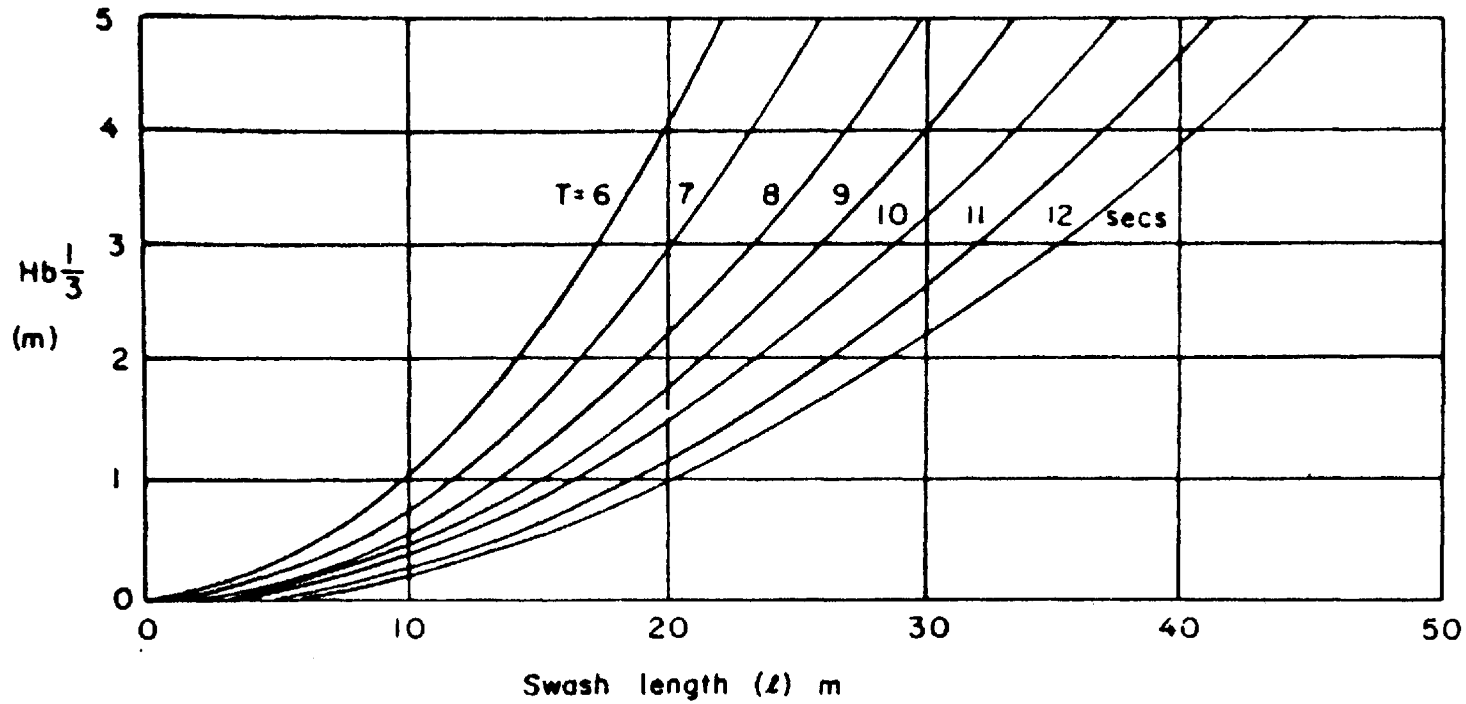


FIGURE 7.3A 'CRITICAL' SWASH LENGTHS AND VELOCITIES PREDICTED BY KEMP (1958)

Each curve implies a phase-difference (t/T) of 1.0. Note the high initial velocities, the slow decrease across the foreshore and the rapid decline near the swash limit. These features are especially pronounced for longer breakers. (Reproduced from KIRK, R.M. "Aspects of surf and run-up processes on mixed sand and gravel beaches" (1975) Fig: 3, page 124, Geografiska Annaler, 57, 117-133

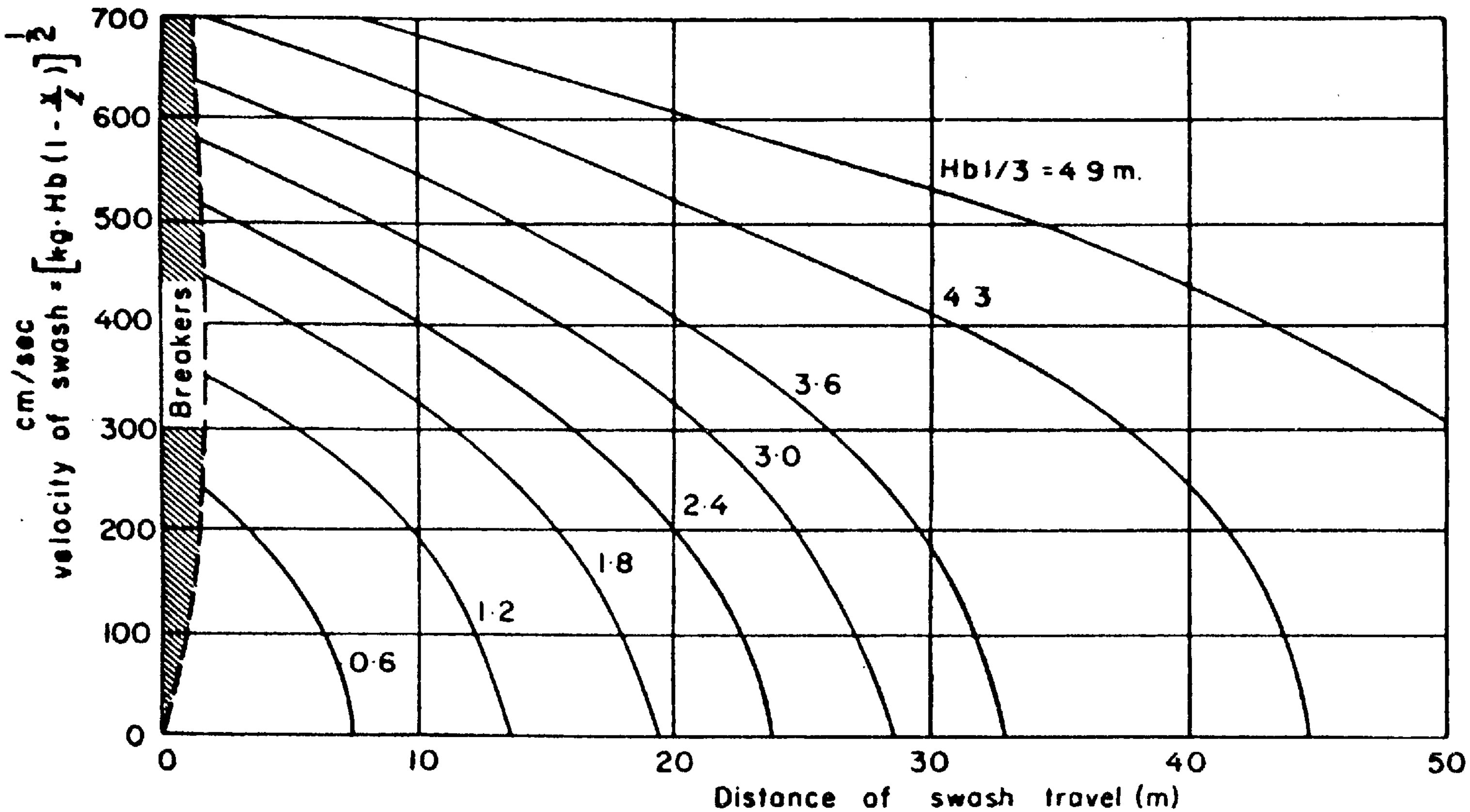


FIGURE 7.3B 'CRITICAL' SWASH LENGTHS AND VELOCITIES PREDICTED BY KEMP (1958)

Each curve implies a phase-difference (t/T) of 1.0. Note the high initial velocities, the slow decrease across the foreshore and the rapid decline near the swash limit. These features are especially pronounced for longer breakers. (Reproduced from KIRK, R.M. "Aspects of surf and run-up processes on mixed sand and gravel beaches" (1975) Fig: 3, page 124, Geografiska Annaler, 57, 117-133

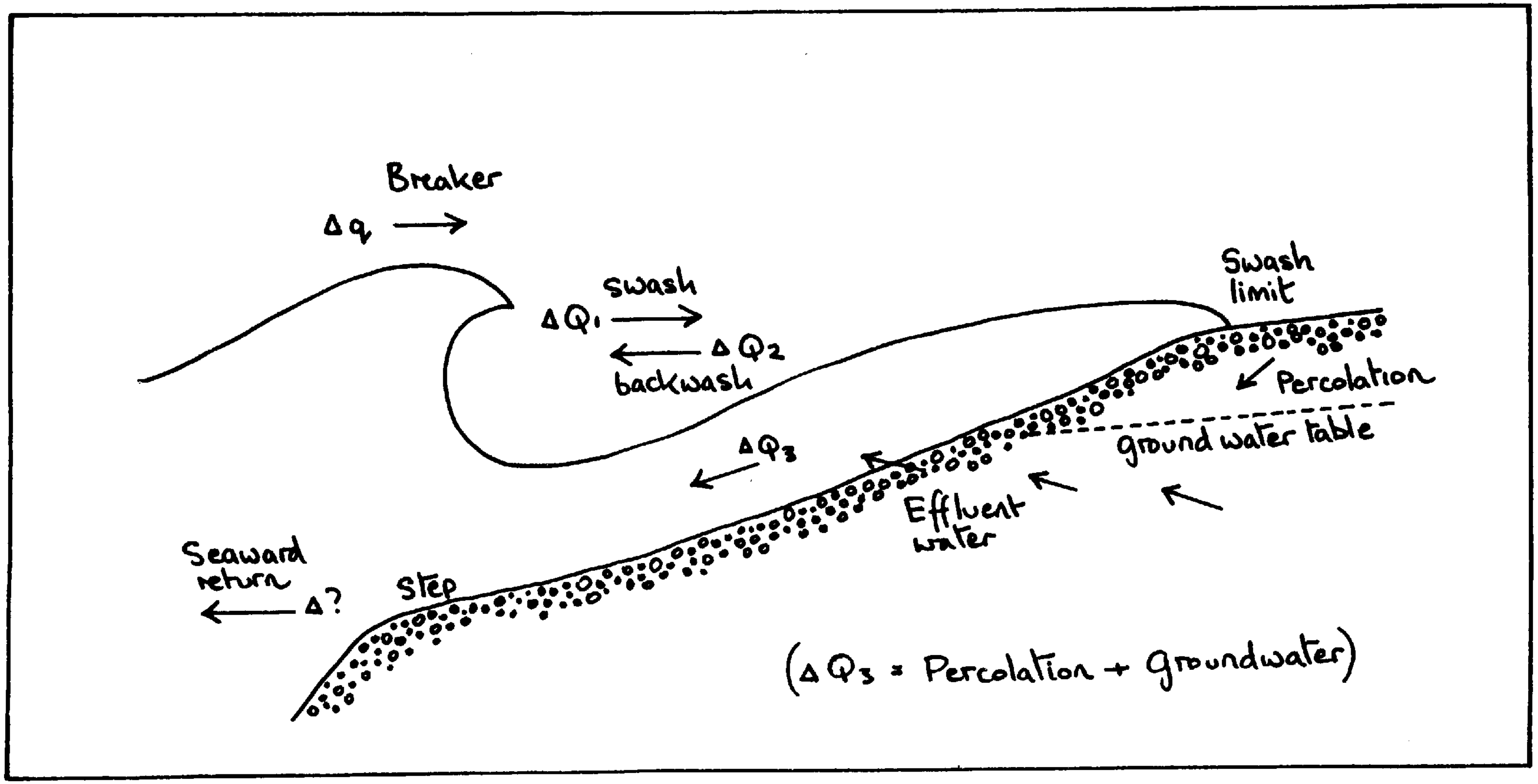
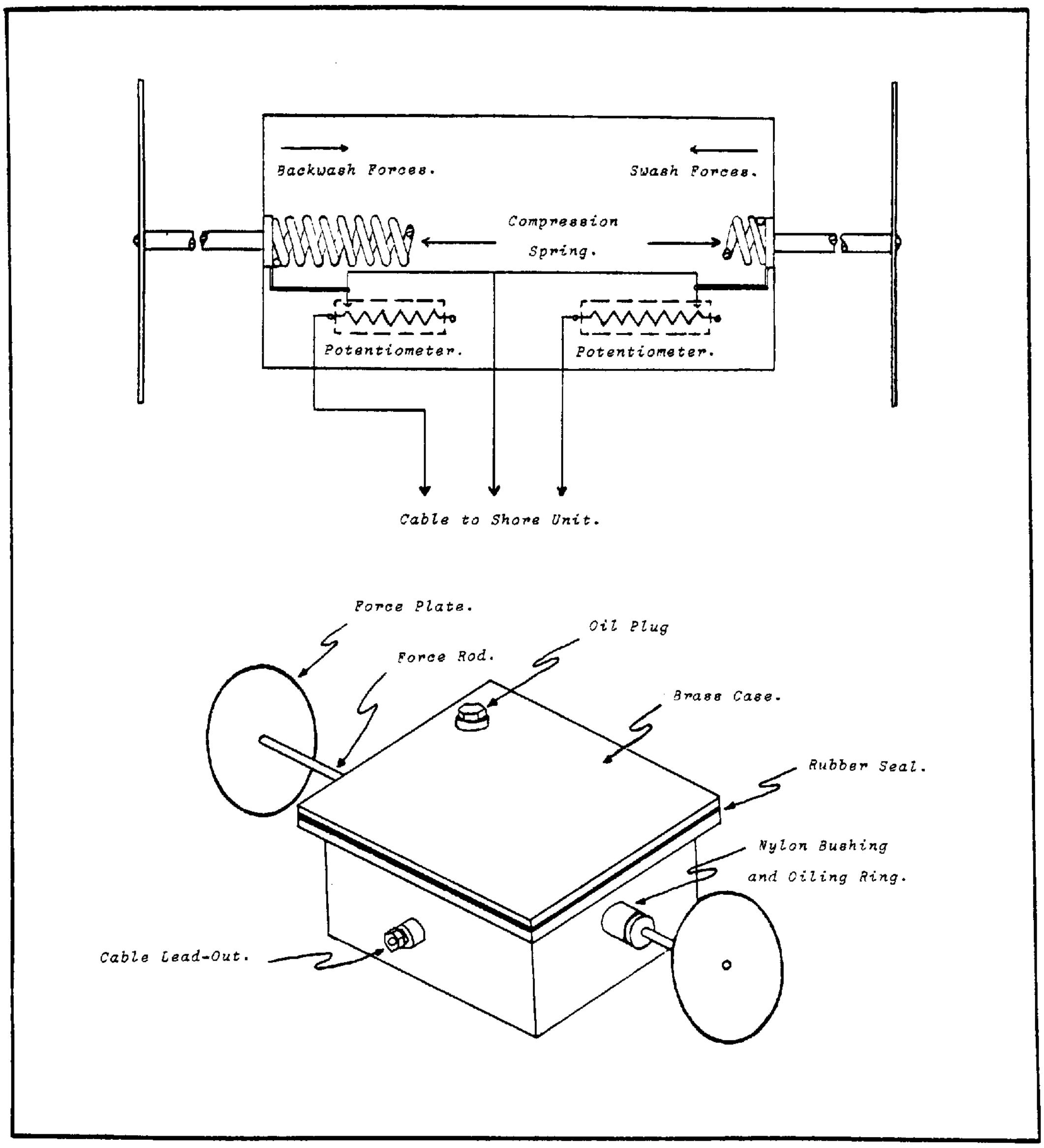


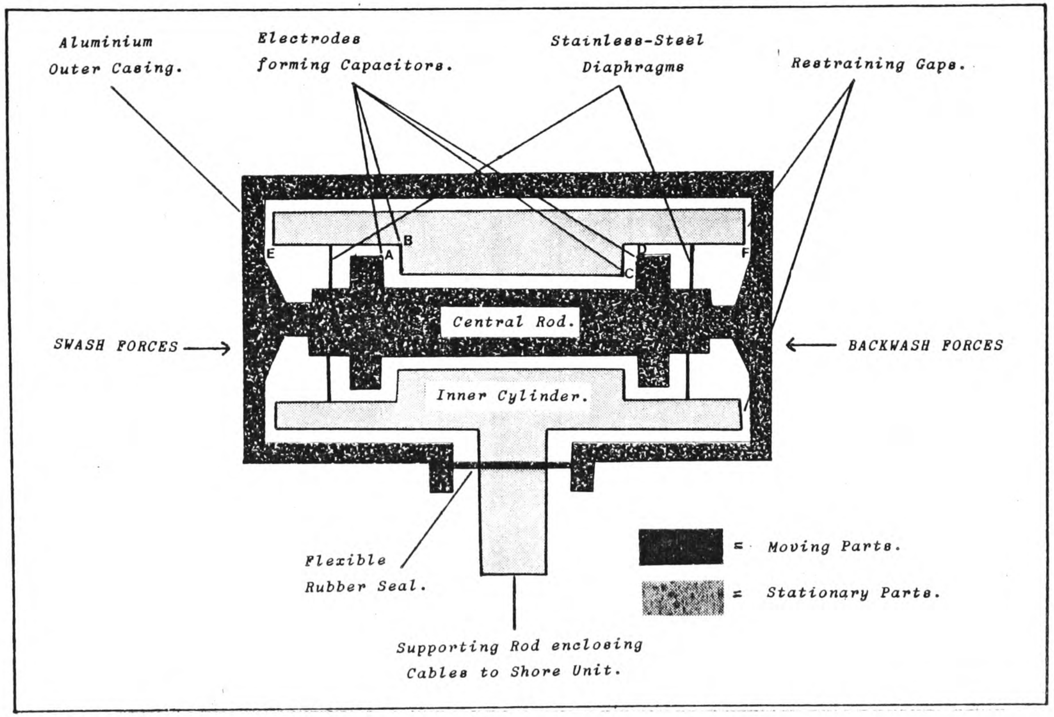
FIGURE 7.4 THE WATER BUDGET IN THE SWASH ZONE

(reproduced from KIRK, R.M., 1970, Fig: 33A, page: 176 - see references)



KIRK'S DYNAMOMETER - SCHEMATIC.

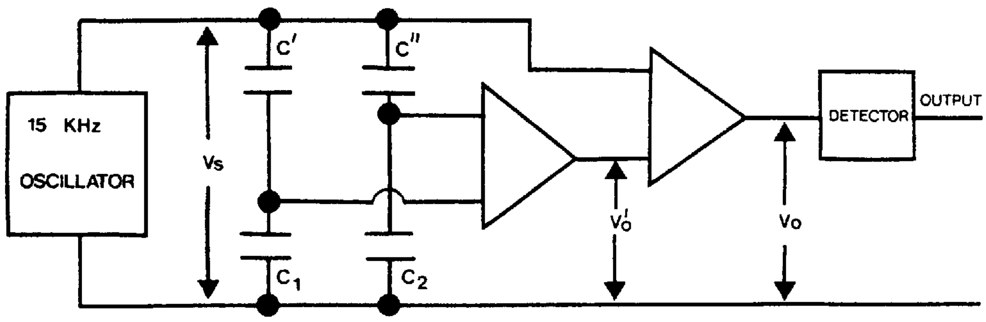
FIGURE 7.5



<u>NEWLY DESIGNED SWASH TRANSDUCER</u>

(A,B,C,D,E and F referred to in text)

FIGURE 7.6

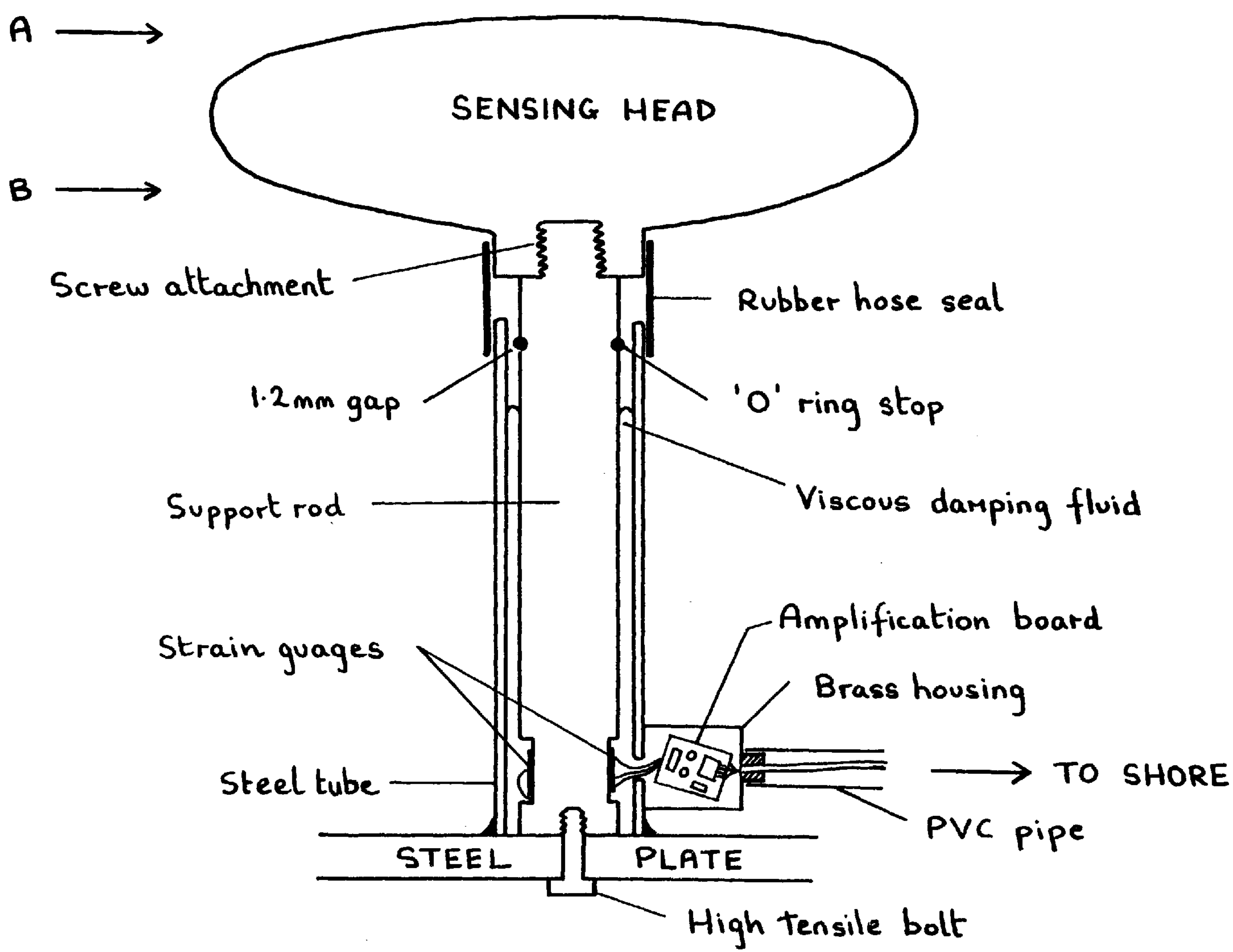


BLOCK DIAGRAM OF ELECTRONIC SYSTEM

FIGURE 7.7

SWASH TRANSDUCER MARK II

FIGURE 7.8



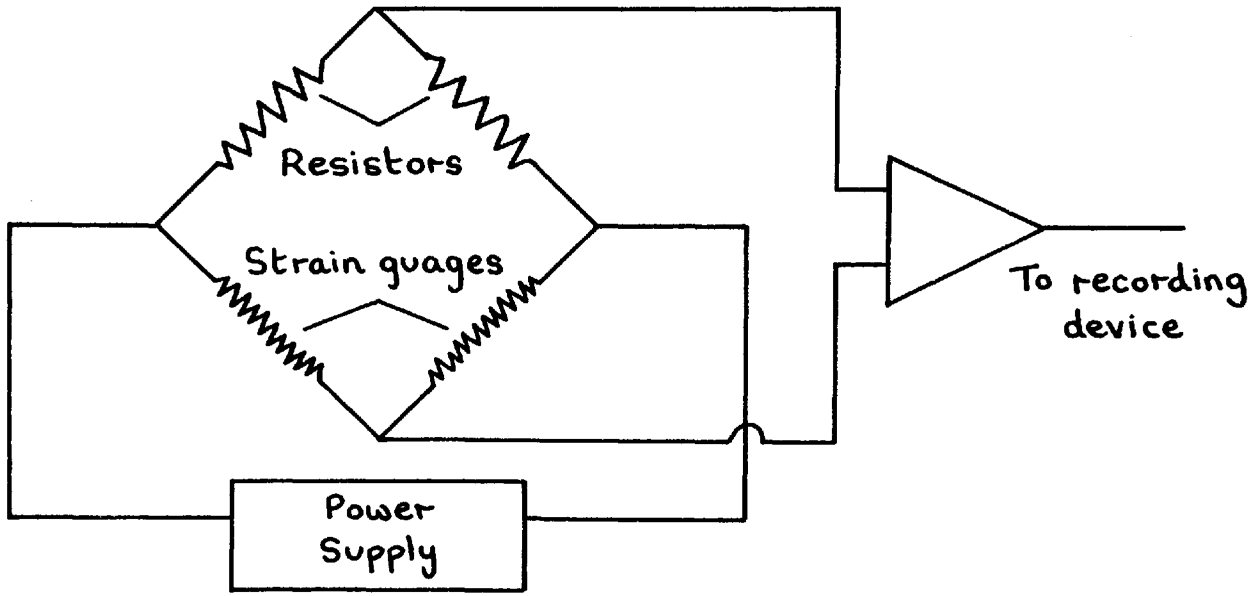
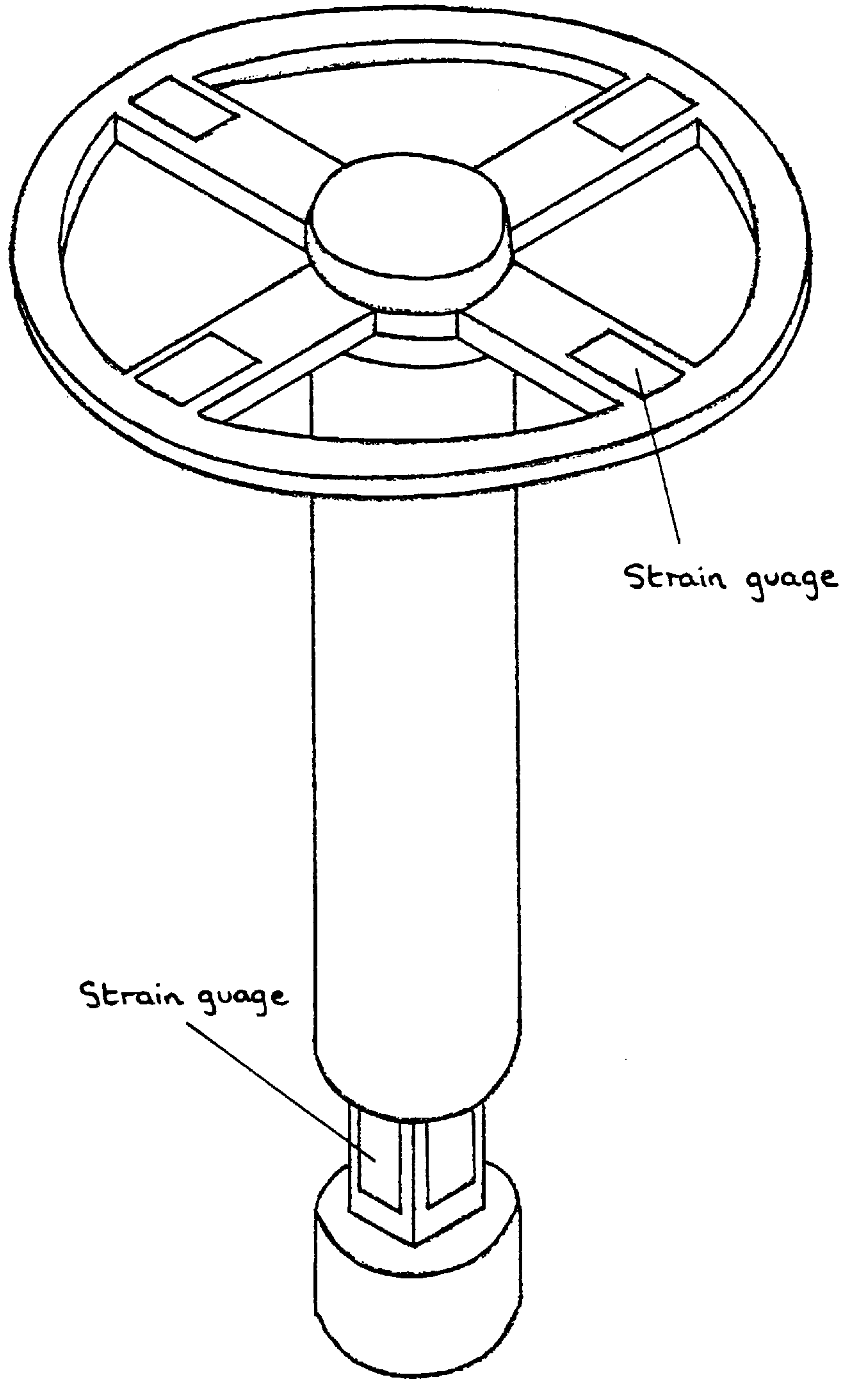


FIGURE 7.9 CIRCUIT FOR THE MARK II SWASH TRANSDUCER

Swash Transducer



Future Development

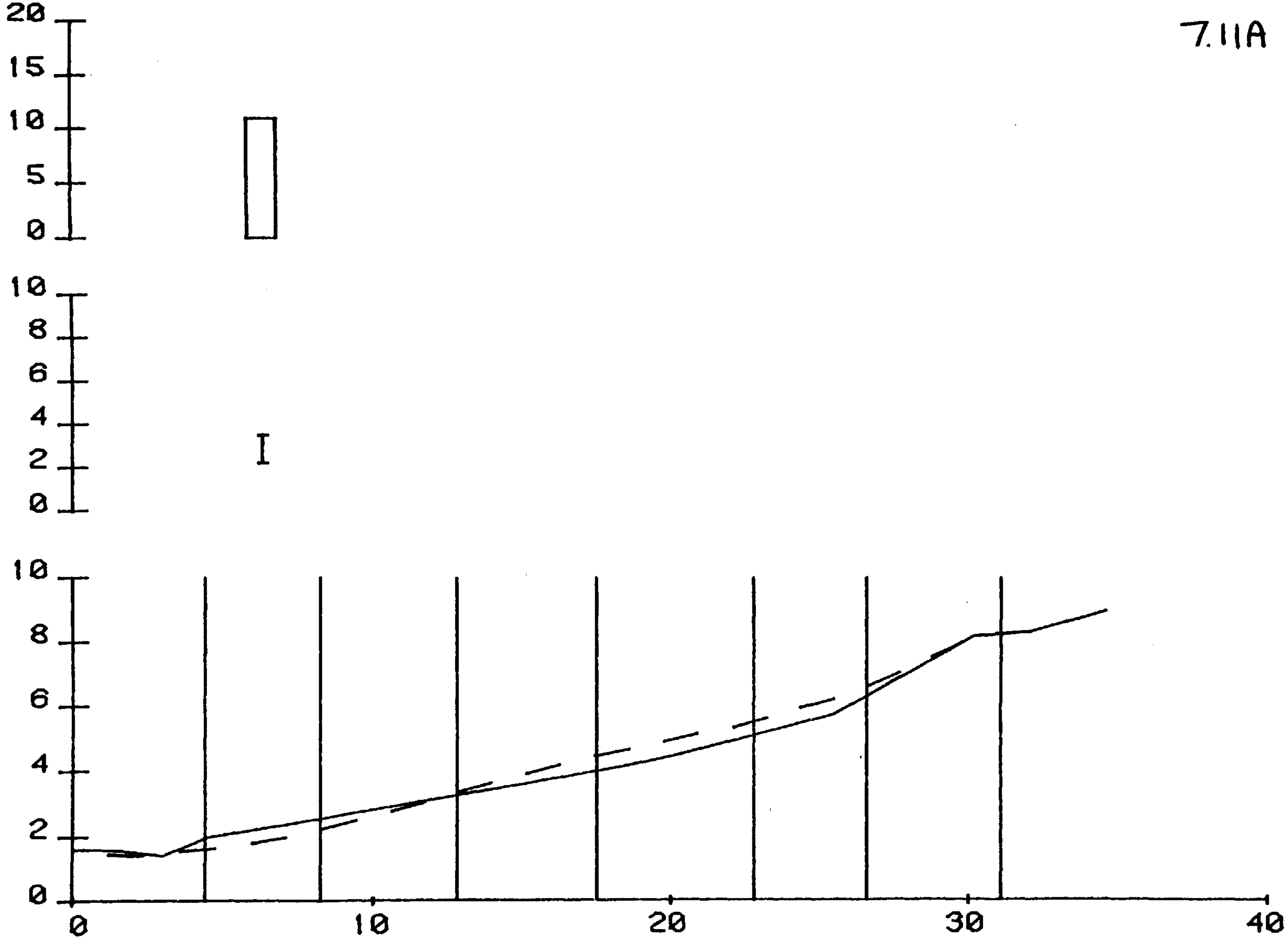
FIGURE 7.10

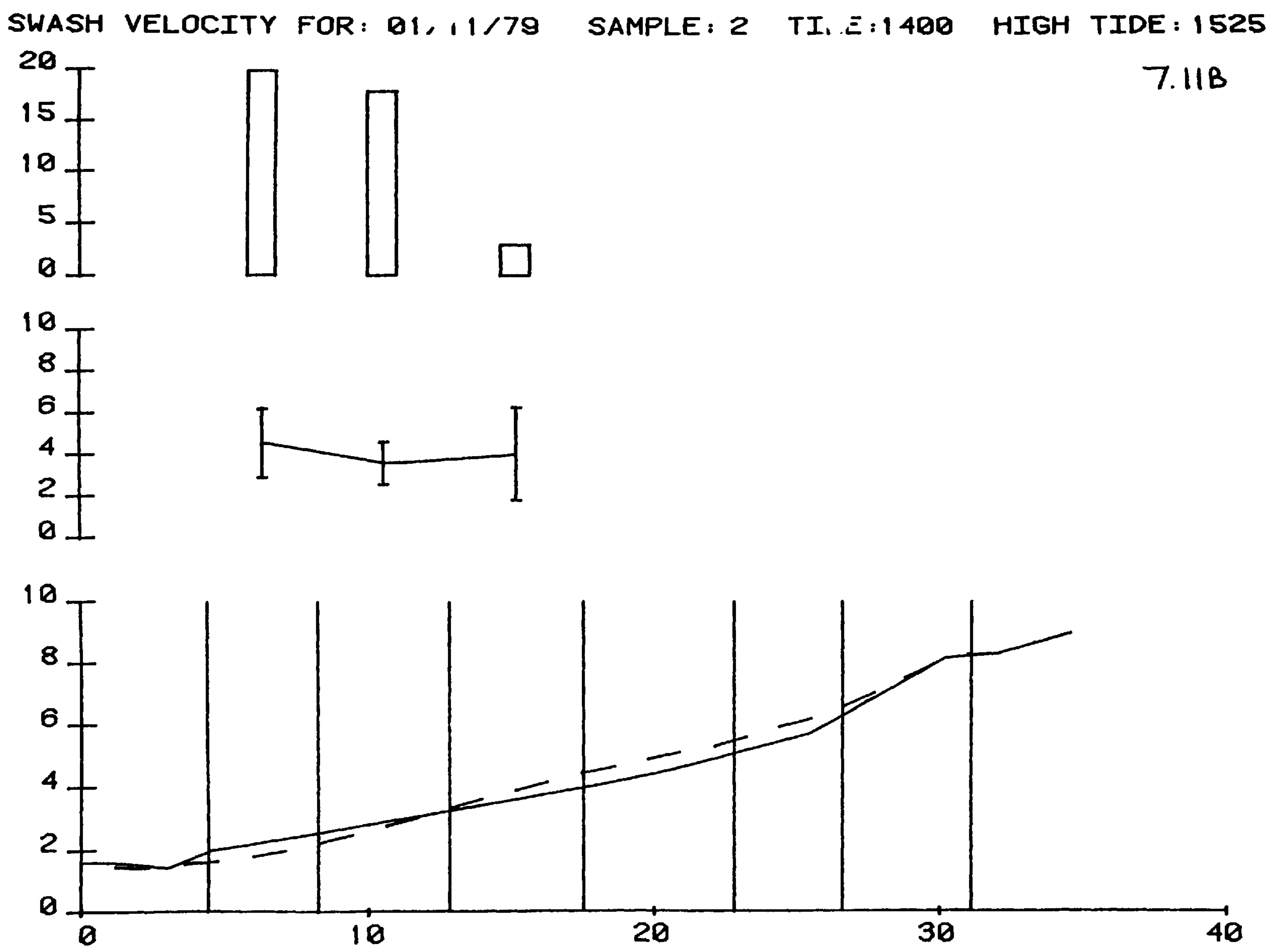
FIGURES 7.11A-T SELECTED EXAMPLES OF SWASH VELOCITY RESULTS

The lower third of each diagram shows the profile configuration before (solid line) and after (broken line) the experiment. Vertical lines indicate the position of beach marker rods. The middle third shows the velocity data (in metres/sec) in terms of a vertical bar. The centre of the bar indicates the mean swash velocity of the sample, and its respective ends represent one standard deviation either side of the mean. Where two or more results are indicated, each mean position is joined by aline to give an impression of whether mean velocity increased or decreased between marker rods. The top third shows vertical blocks indicating the sample number. A sequence of 20 waves were monitored, not all of which might have reached the marker rods.

SWASH VELOCITY FOR: 01/11/79 SAMPLE: 1 TIME:1340 HIGH TIDE:1525

7.11A

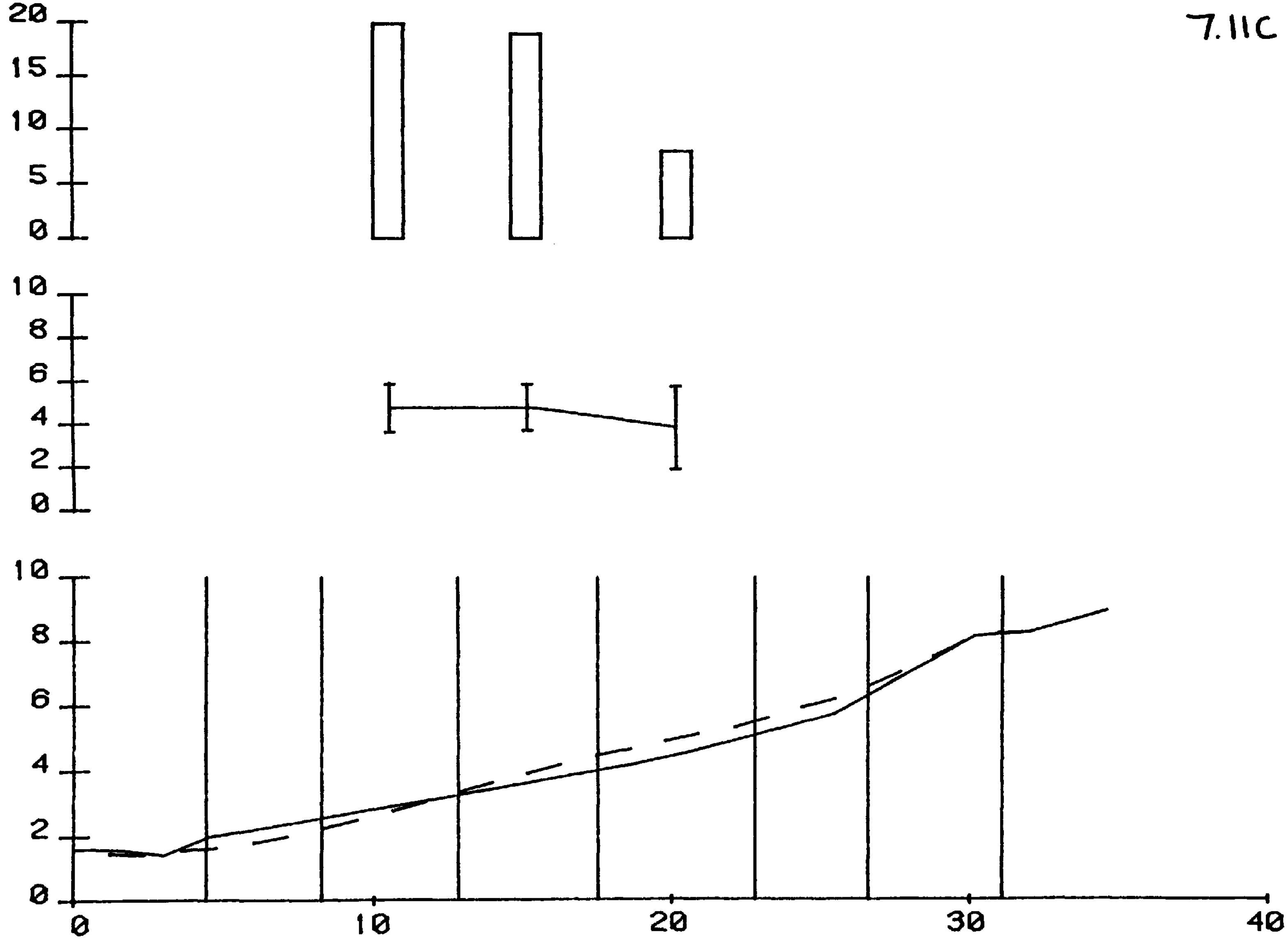



SWASH VELOCITY FOR: 01, 11/79 SAMPLE: 2 TI. E:1400 HIGH TIDE: 1525
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40

7.11B

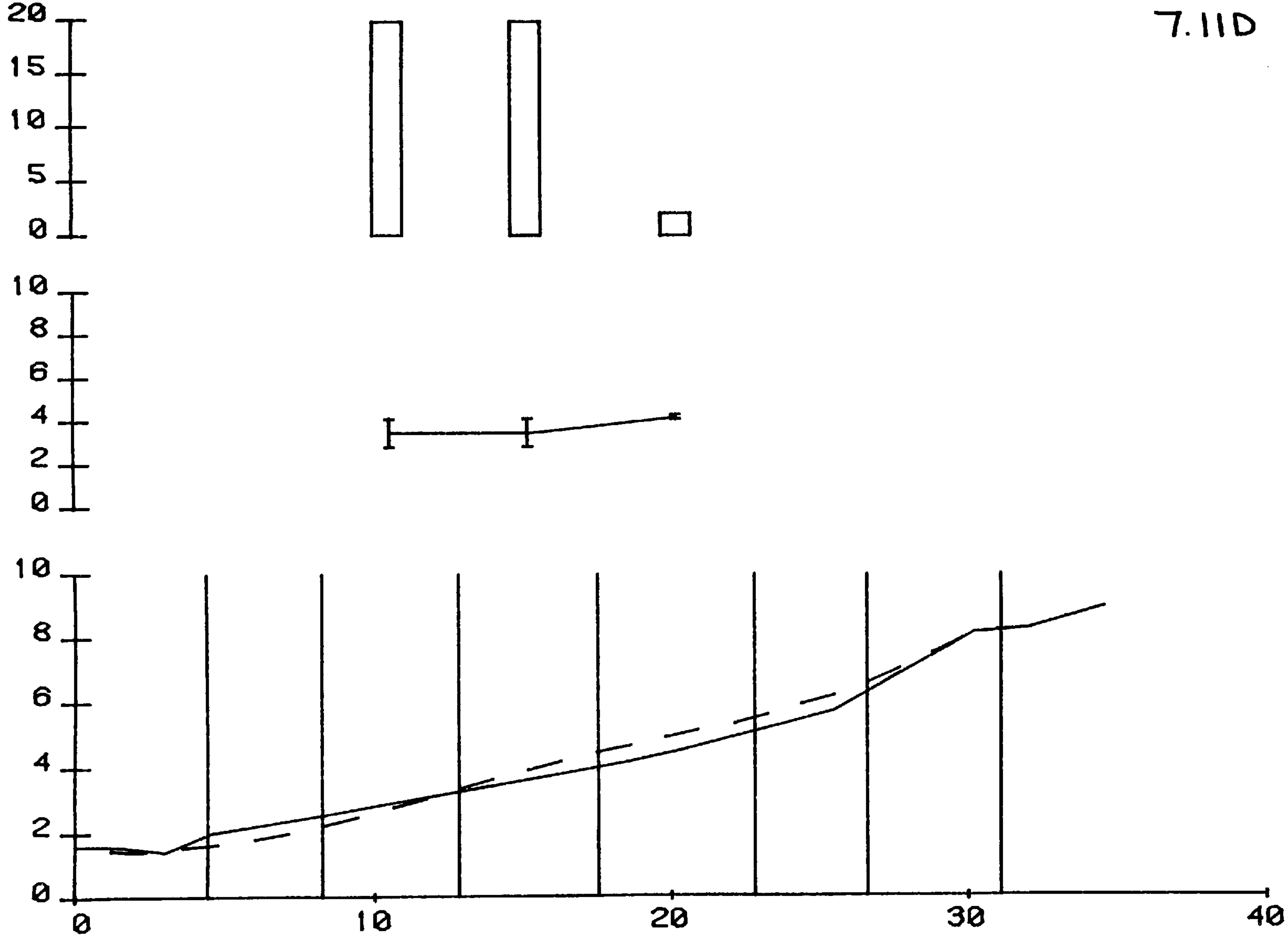
SWASH VELOCITY FOR: 01/11/79 SAMPLE: 3 TIME:1430 HIGH TIDE: 1525

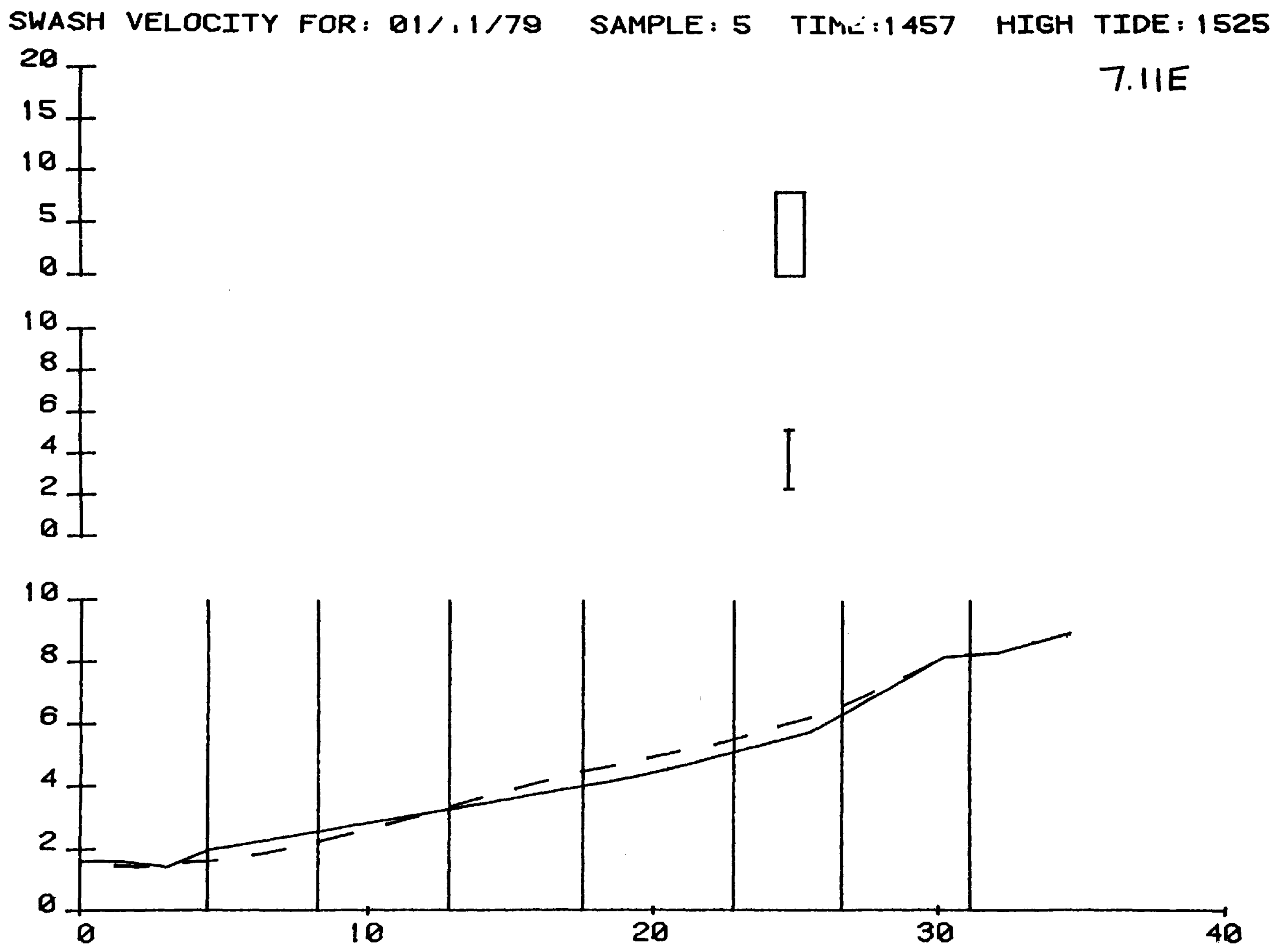
7.11C

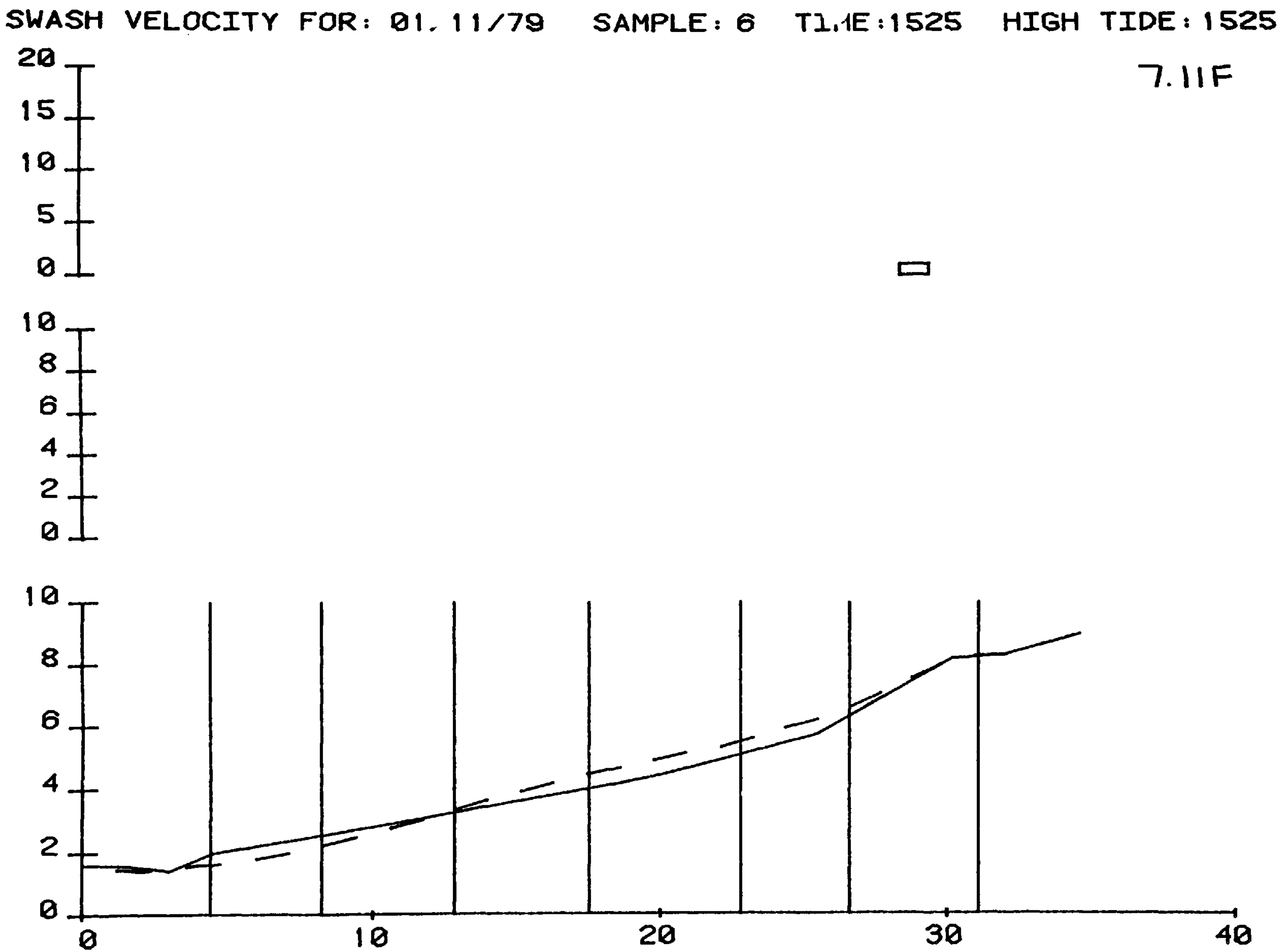


SWASH VELOCITY FOR: 01/11/79 SAMPLE: 4 TIME:1445 HIGH TIDE: 1525

7.11D

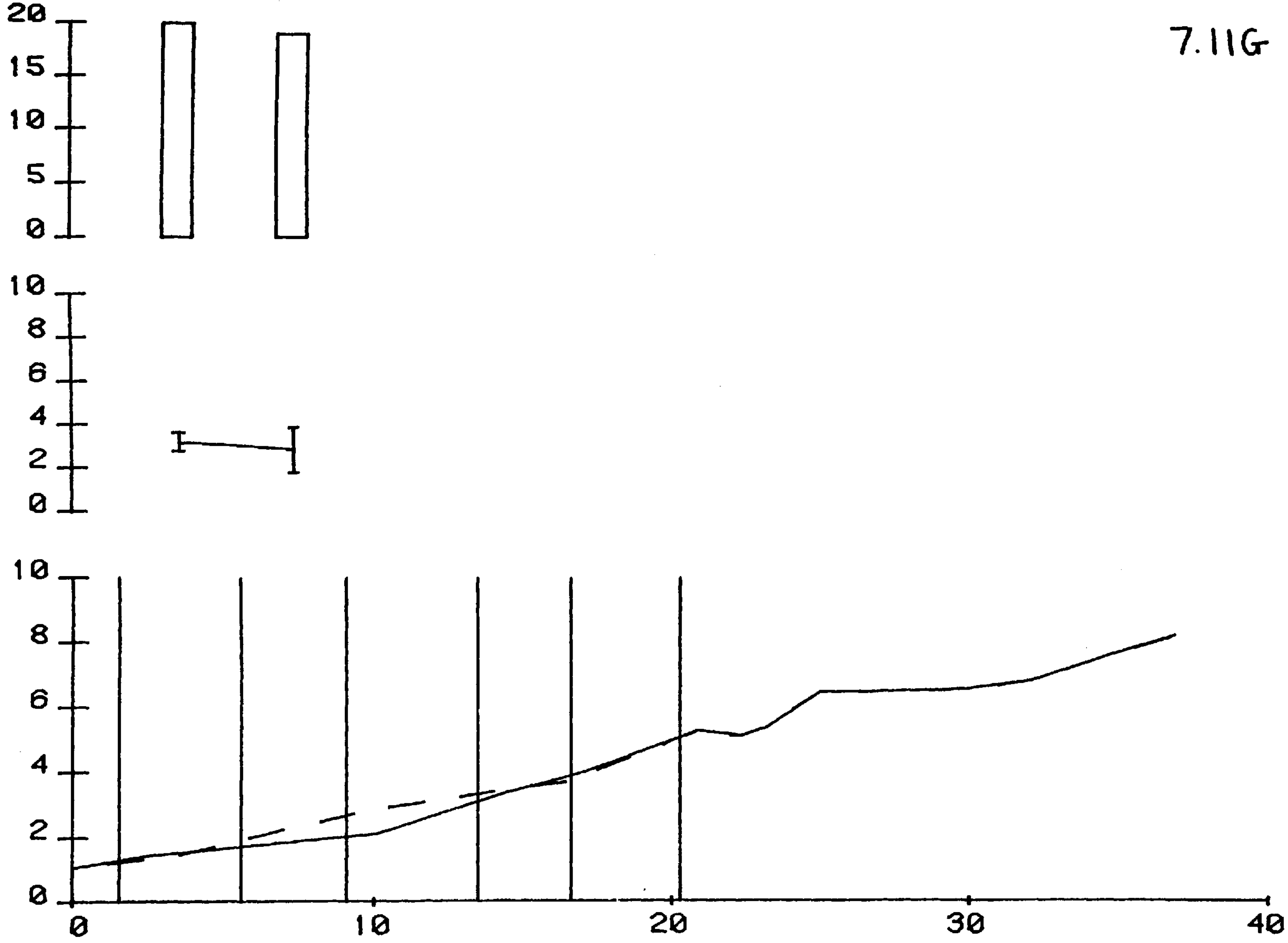


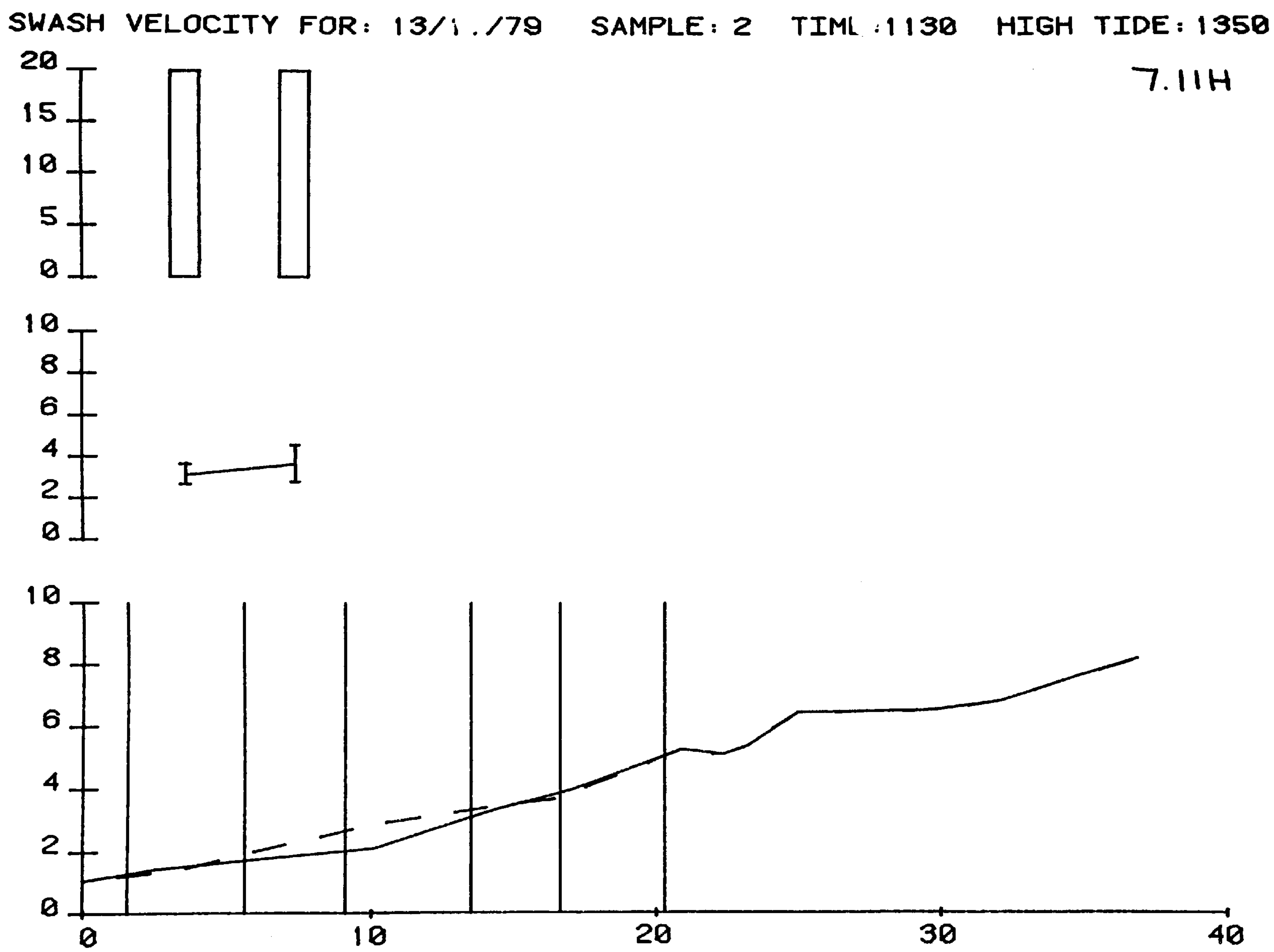

SWASH VELOCITY FOR: 01/.1/79 SAMPLE: 5 TIME:1457 HIGH TIDE: 1525
7.11E
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40


SWASH VELOCITY FOR: 01. 11/79 SAMPLE: 6 T1.1E:1525 HIGH TIDE: 1525
7.11F
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40

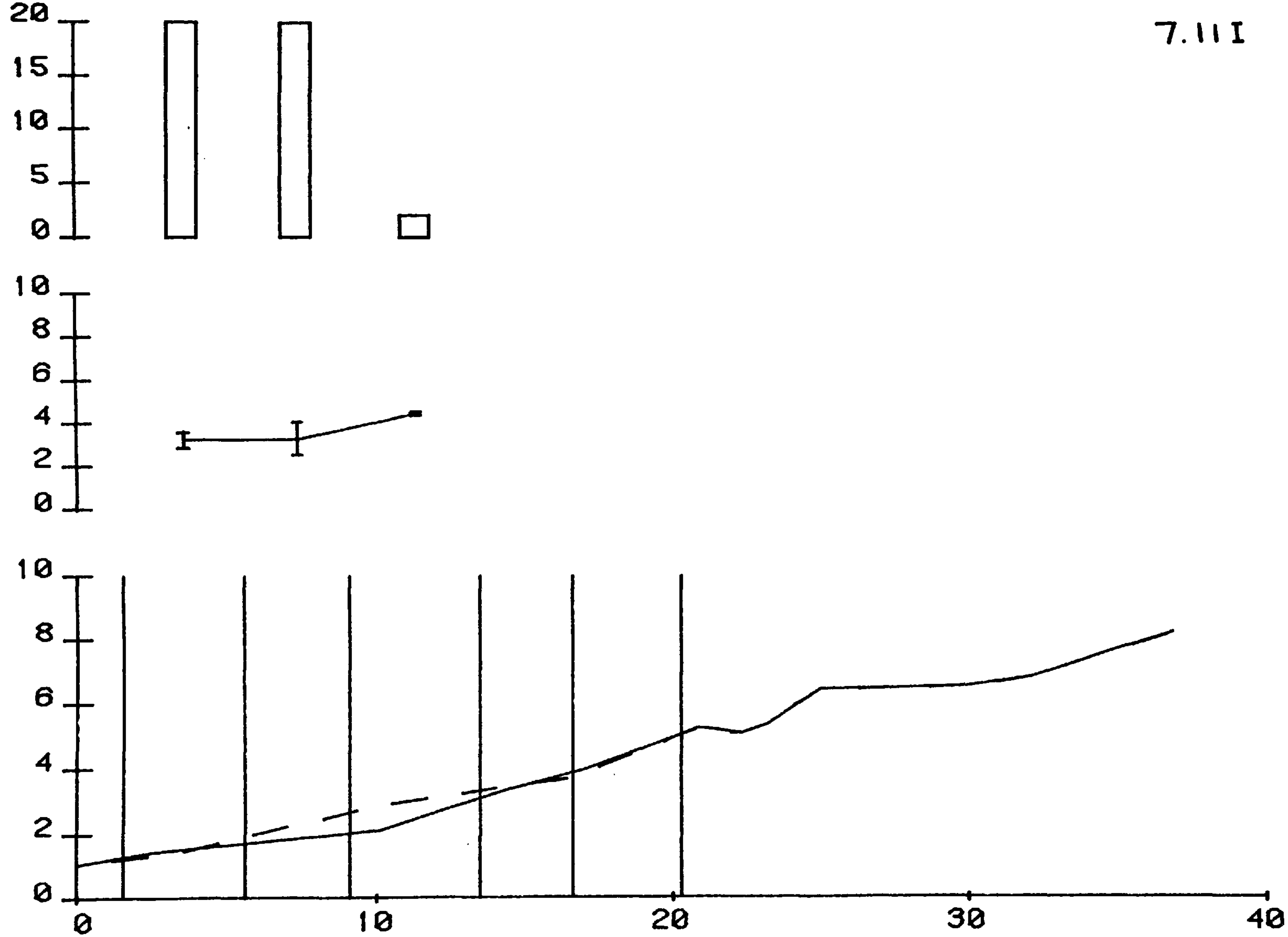
SWASH VELOCITY FOR: 13/11/79 SAMPLE: 1 TIME:1120 HIGH TIDE:1350

7.11G



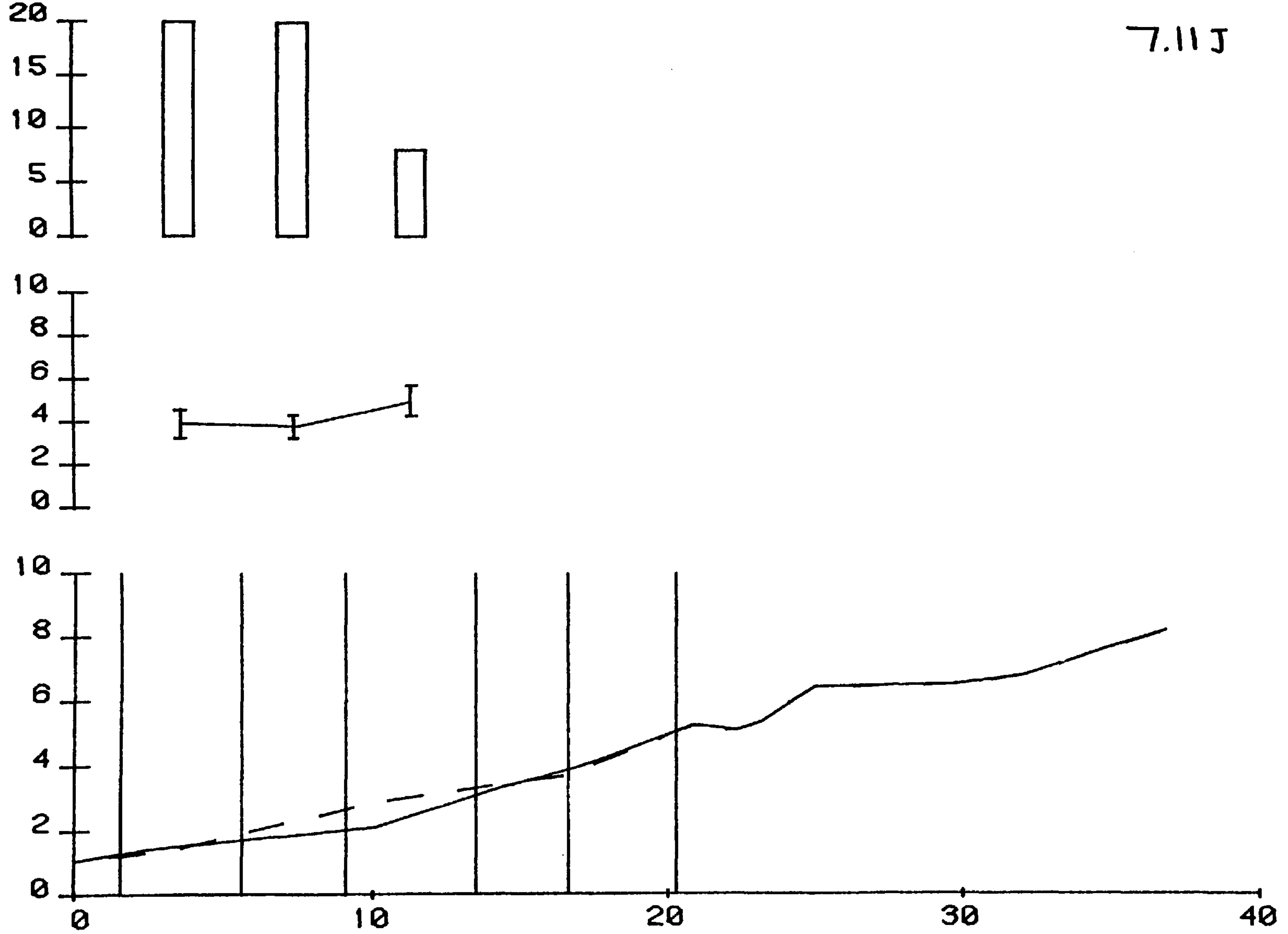

SWASH VELOCITY FOR: 13/1./79 SAMPLE: 2 TIML :1130 HIGH TIDE: 1350
7.11H
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40

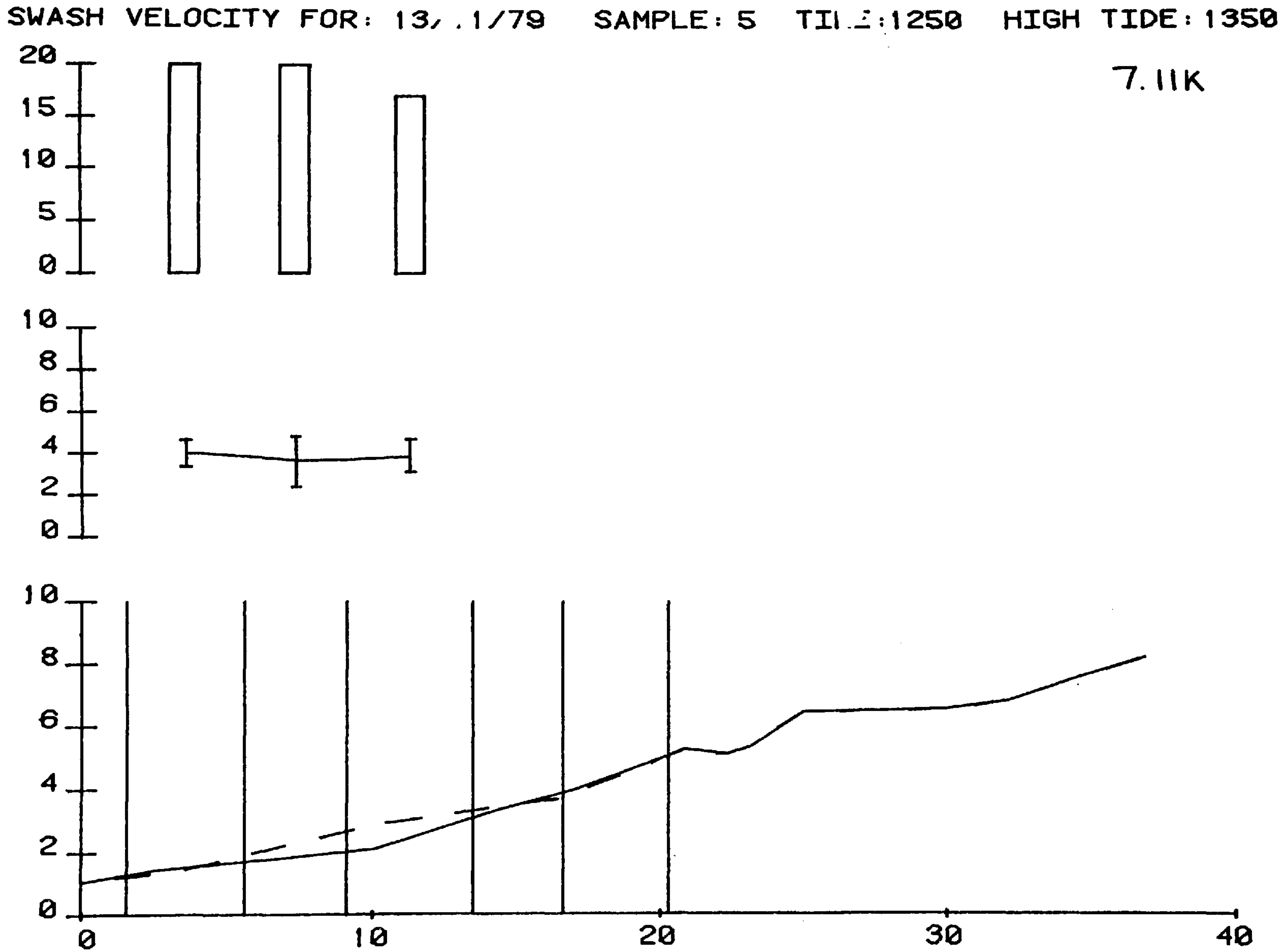
SWASH VELOCITY FOR: 13/11/79   SAMPLE: 3   TIME:1150   HIGH TIDE:1350



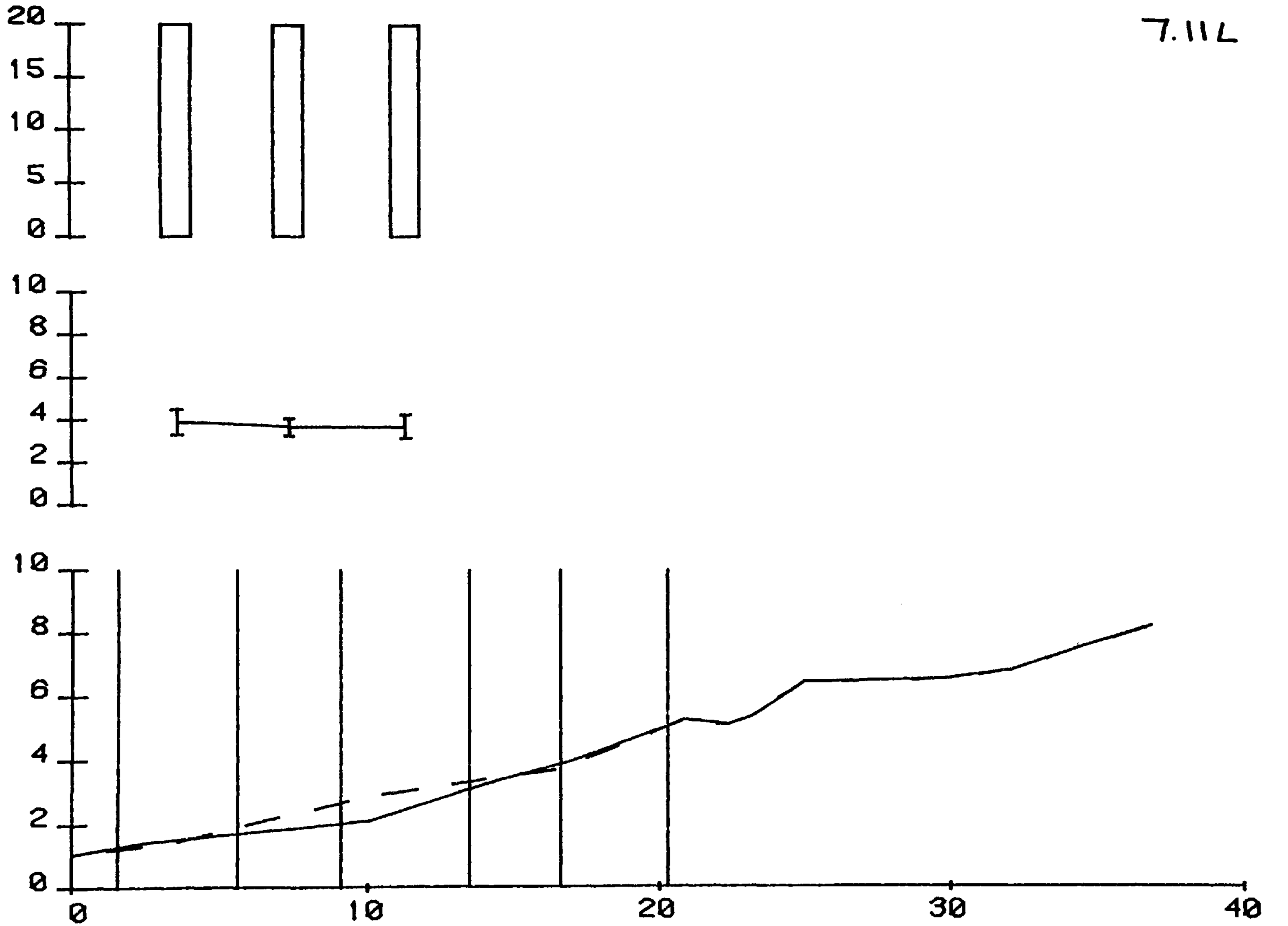
7.11I

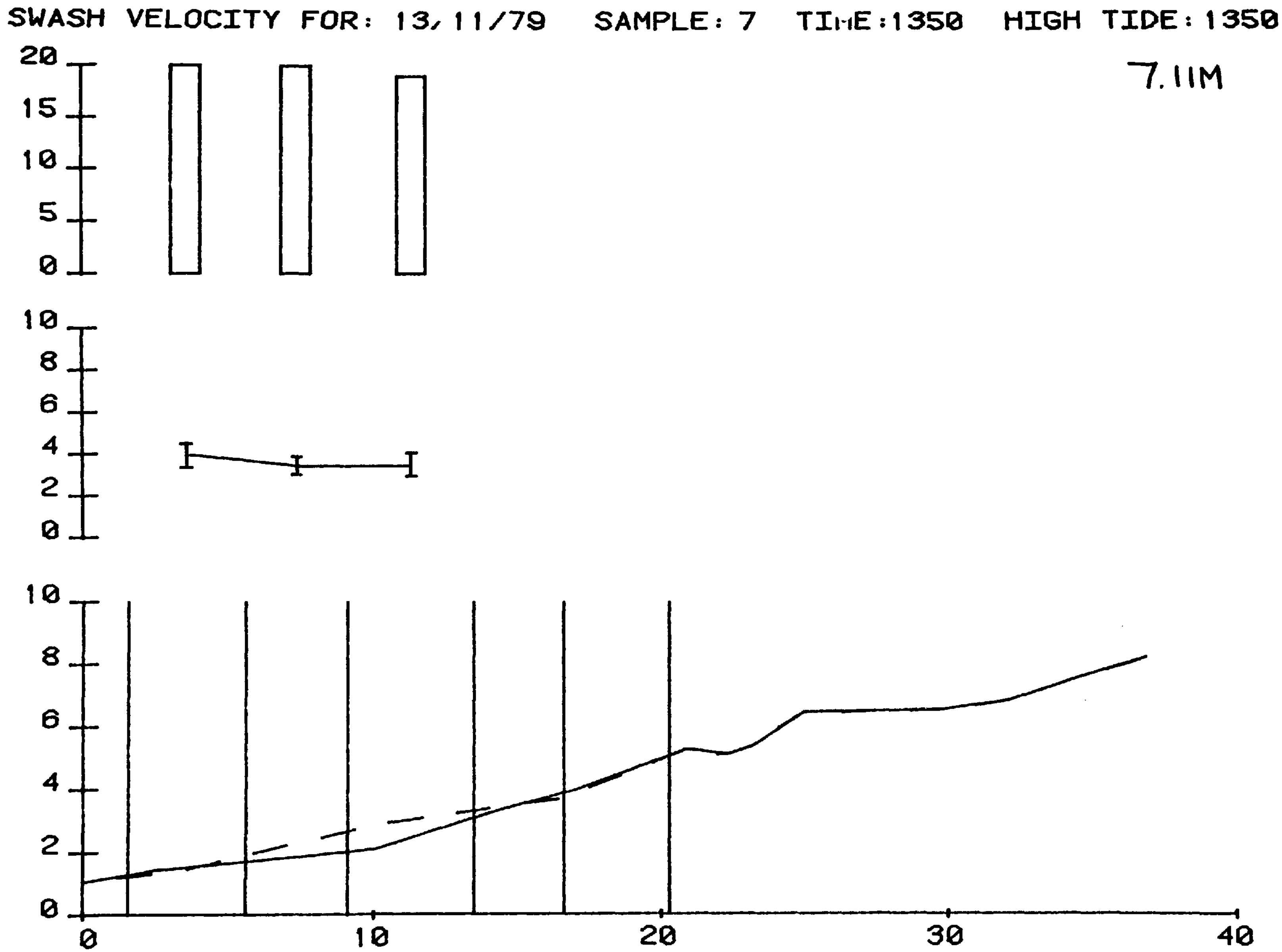
SWASH VELOCITY FOR: 13, 11/79   SAMPLE: 4   TI..E:1220   HIGH TIDE: 1350

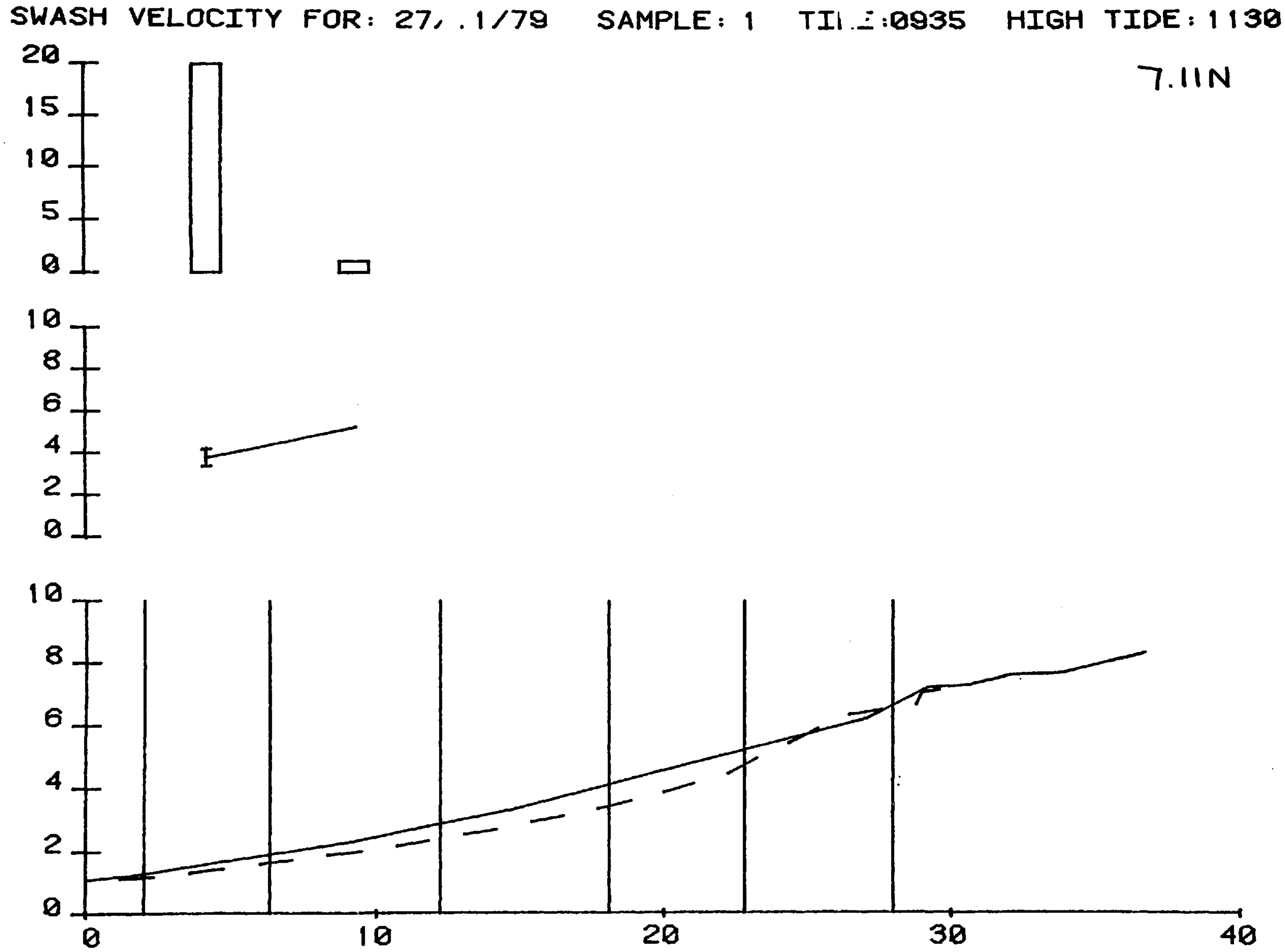



SWASH VELOCITY FOR: 13/ .1/79 SAMPLE: 5 TI :1250 HIGH TIDE: 1350
7.11K
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40

SWASH VELOCITY FOR: 13/ 1/79 SAMPLE: 6 TIM.:1315 HIGH TIDE: 1350

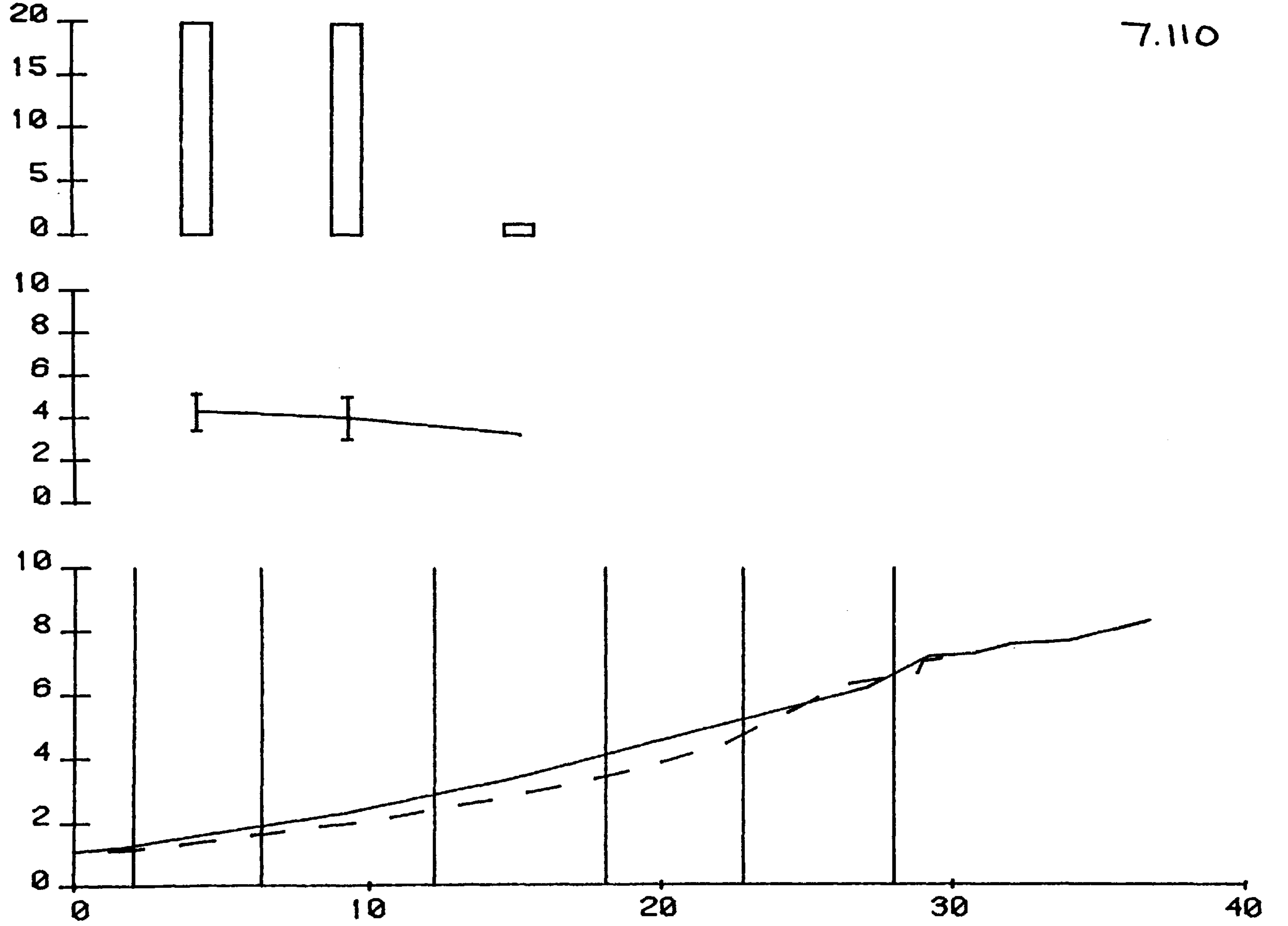



SWASH VELOCITY FOR: 13/11/79 SAMPLE: 7 TIME:1350 HIGH TIDE: 1350
7.11M
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40



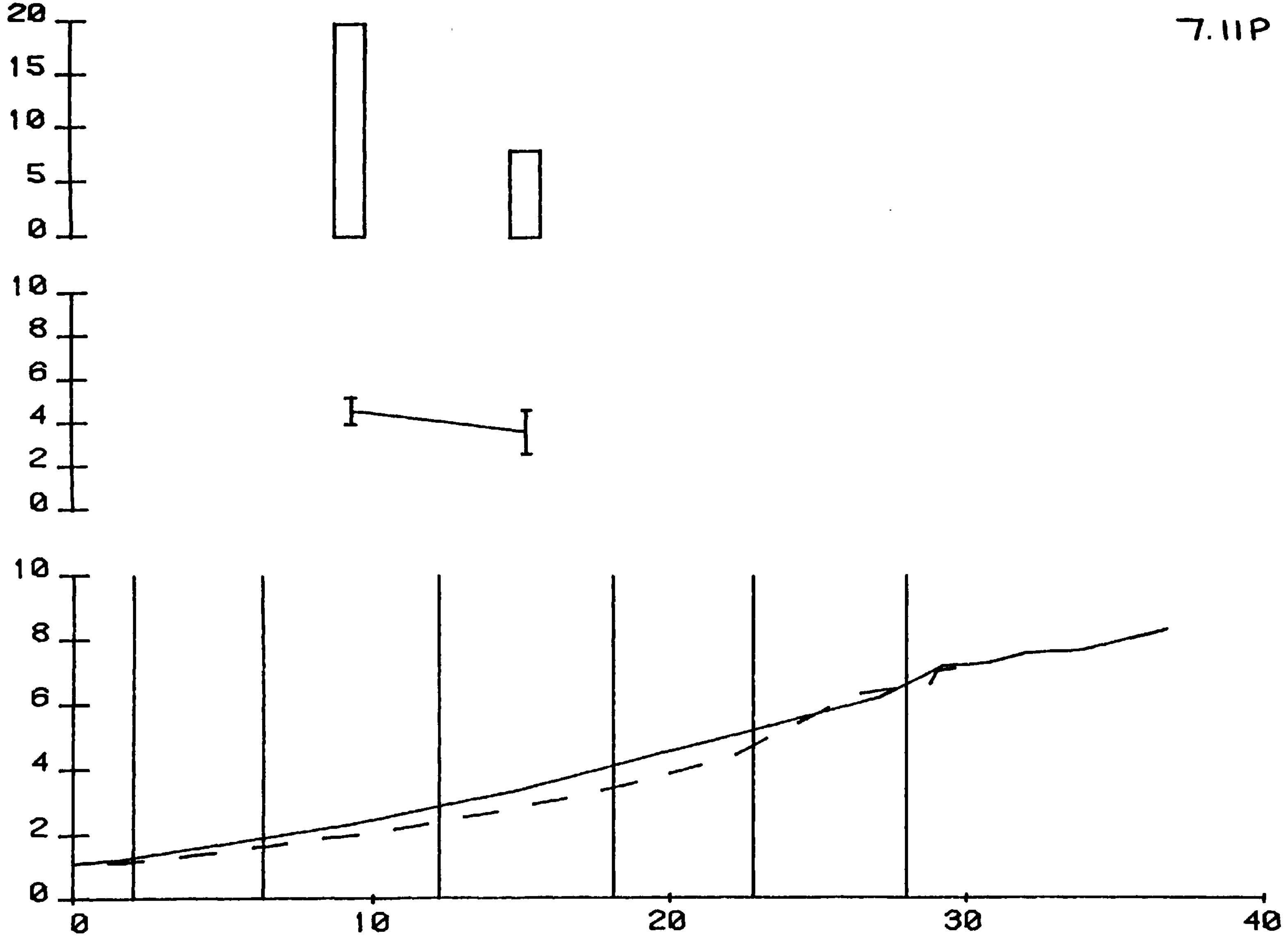
SWASH VELOCITY FOR: 27/ .1/79 SAMPLE: 1 TI :0935 HIGH TIDE: 1130
7.11N
20
15
10
5
0
10
8
6
4
2
0
10
8
6
4
2
0
0
10
20
30
40

SWASH VELOCITY FOR: 27/ .1/79   SAMPLE: 2   TIM_:0955   HIGH TIDE: 1130



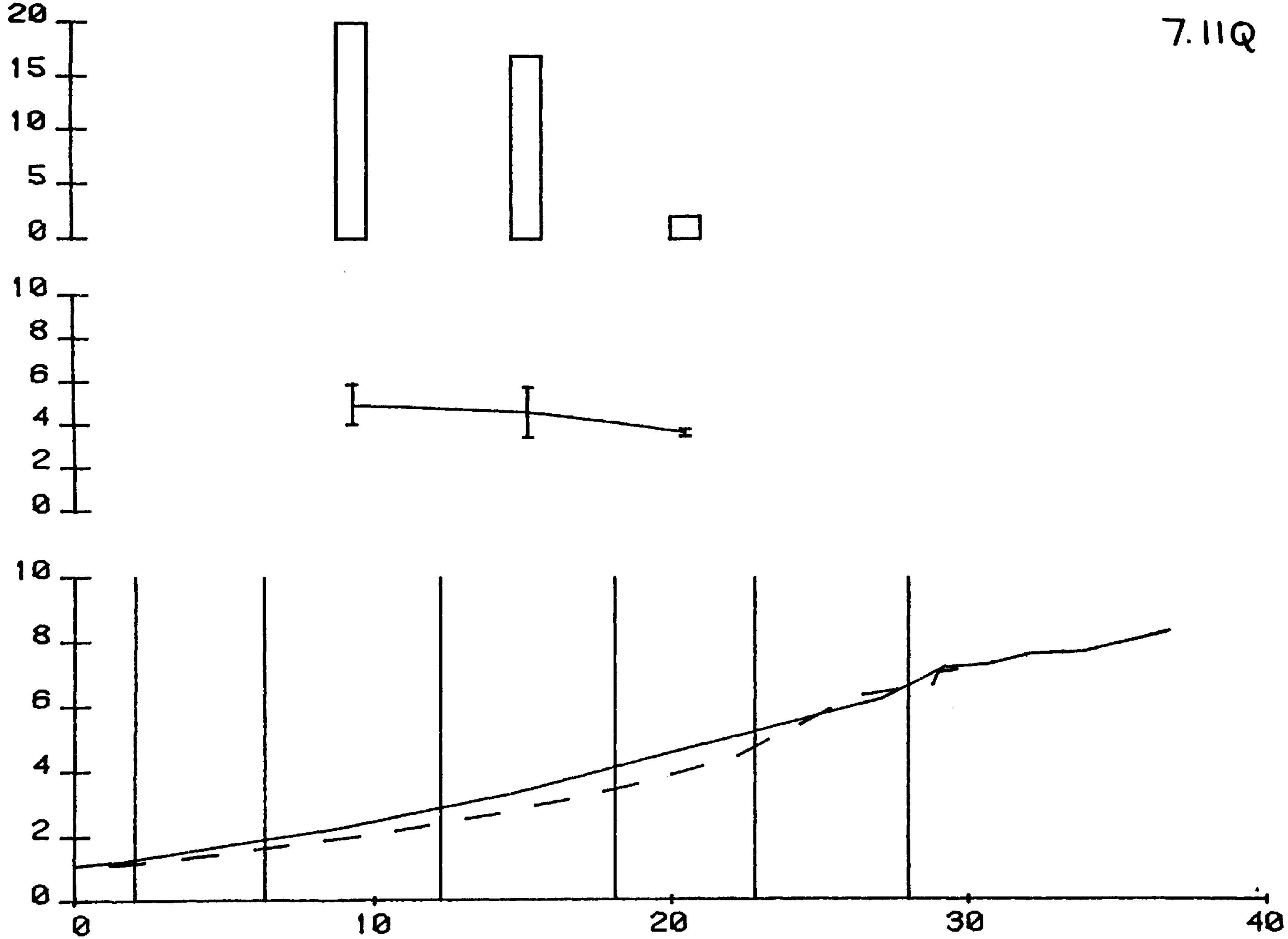
SWASH VELOCITY FOR: 27/11/79 SAMPLE: 3 TIME:1010 HIGH TIDE:1130

7.11P

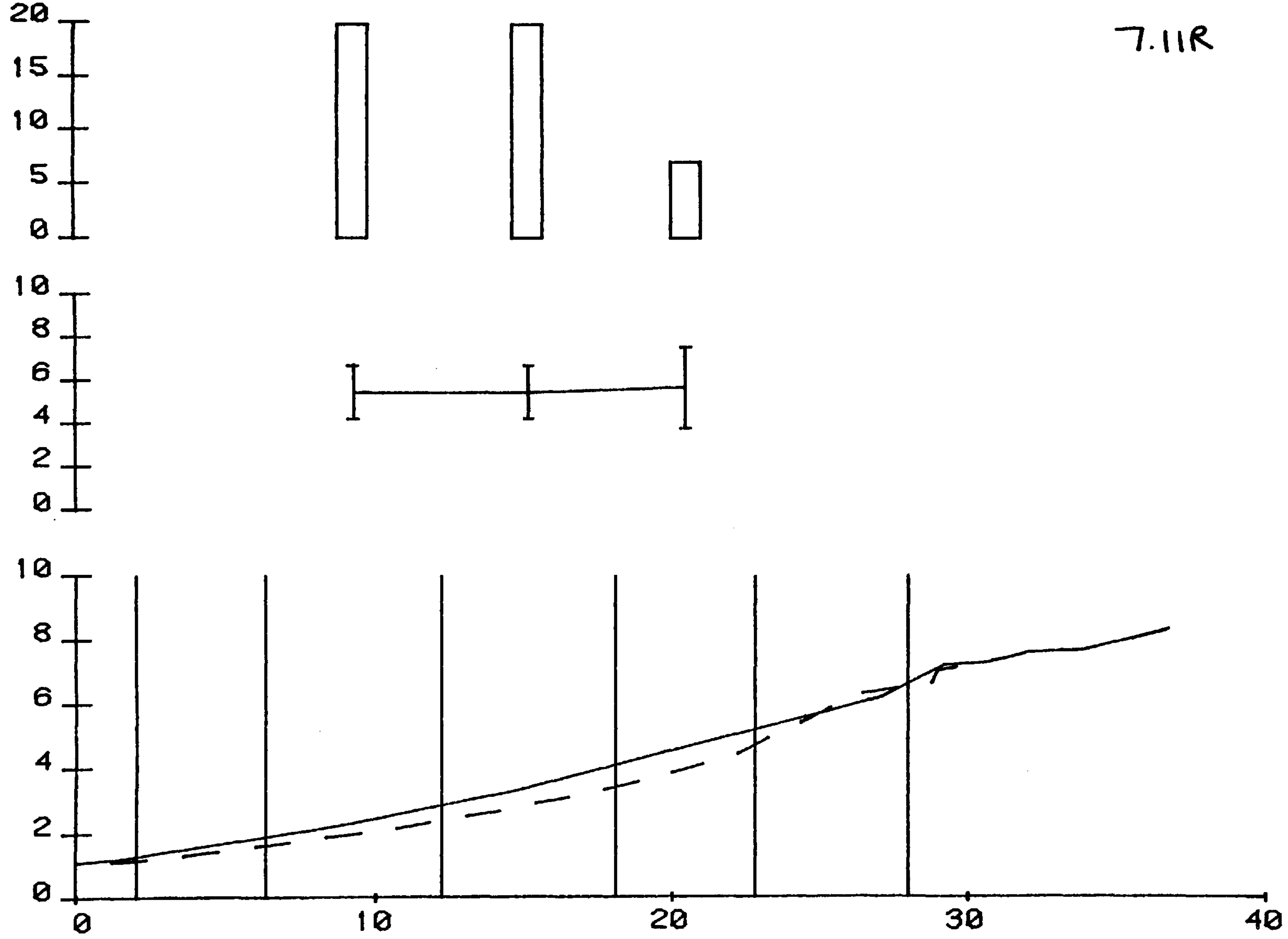


SWASH VELOCITY FOR: 27/11/79 SAMPLE: 4 TIME:1025 HIGH TIDE: 1130

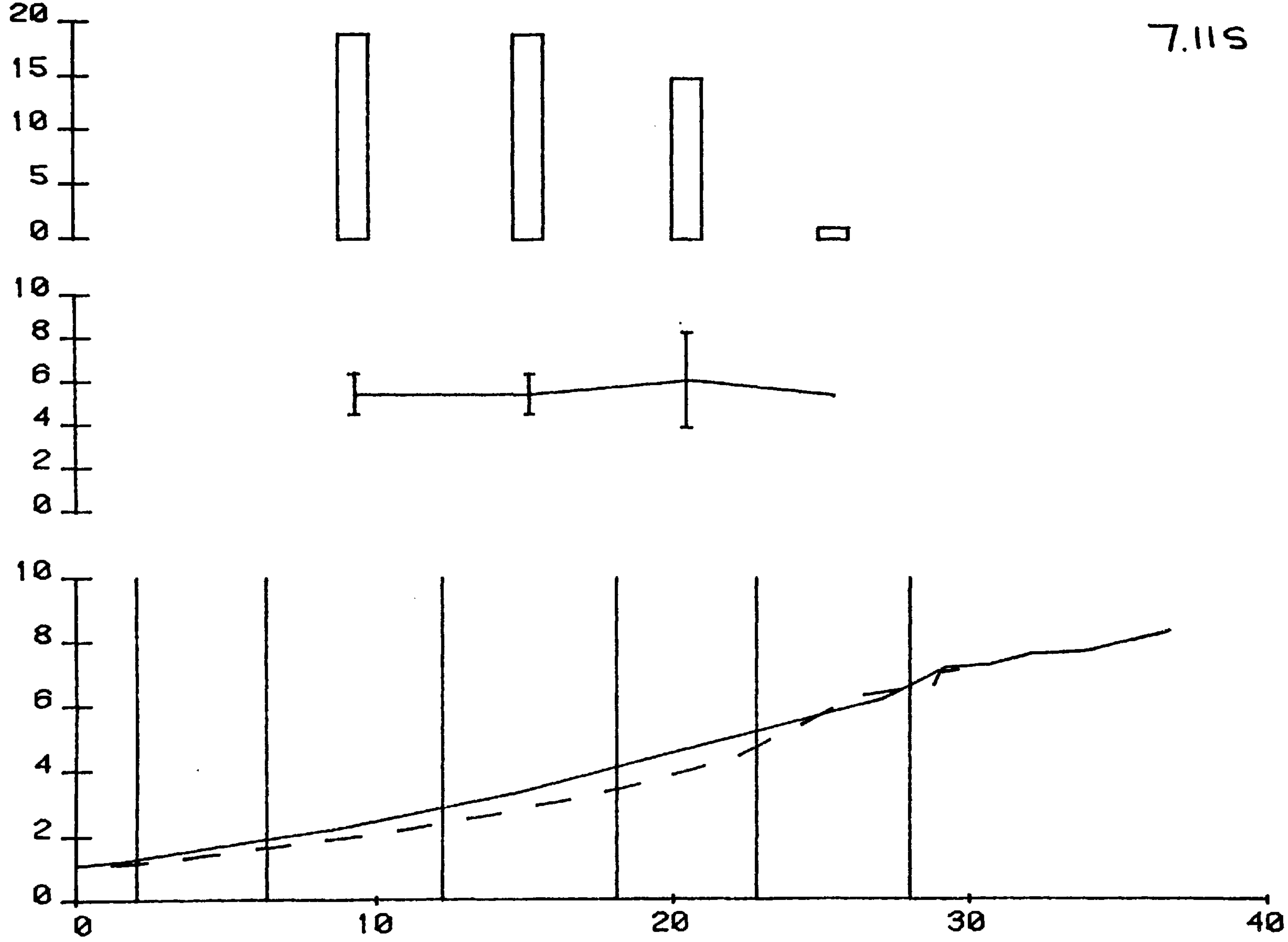
7.11Q



SWASH VELOCITY FOR: 27/11/79 SAMPLE: 5 TIM_:1045 HIGH TIDE: 1130

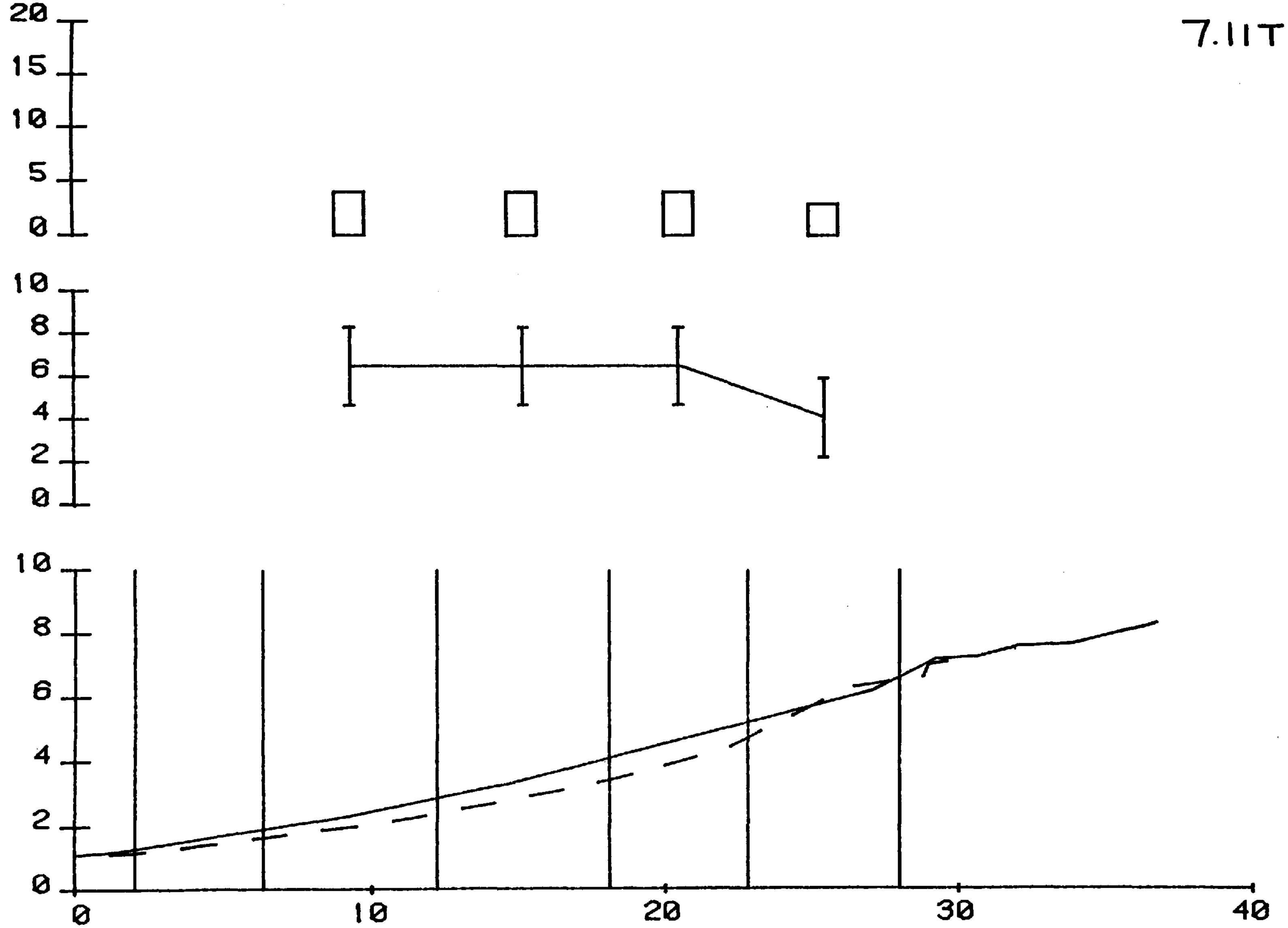


SWASH VELOCITY FOR: 27/ .1/79   SAMPLE: 6   TI[illegible]:1100   HIGH TIDE: 1130



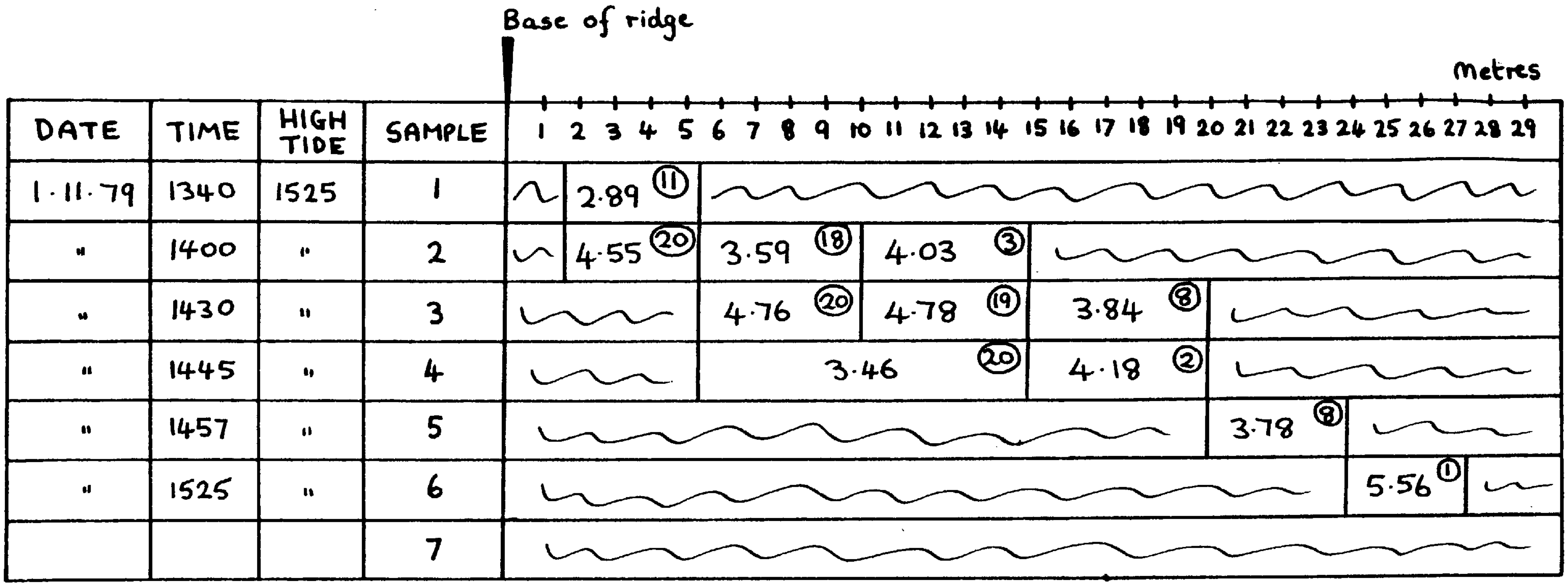
SWASH VELOCITY FOR: 27/11/79   SAMPLE: 7   TIME:1115   HIGH TIDE:1130

7.11T



FIGURES 7.12A-M <u>MEAN VELOCITY VALUES IN RELATION TO THE TIDE</u>

These provide the actual mean swash velocity values for each experiment (sample numbers are inset and ringed). Vertical divisions on the righthand sides of these diagrams indicate marker rod positions in relation to the ridge base. As various marker rods collapsed during each experiment, their loss is indicated by their ommission from the figures between one sample and the next.



DATE
TIME
HIGH TIDE
SAMPLE
Base of ridge
Metres
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
1.11.79
1340
1525
1
2.89 11
"
1400
"
2
4.55 20
3.59 18
4.03 3
"
1430
"
3
4.76 20
4.78 19
3.84 8
"
1445
"
4
3.46 20
4.18 2
"
1457
"
5
3.78 8
"
1525
"
6
5.56 1
7

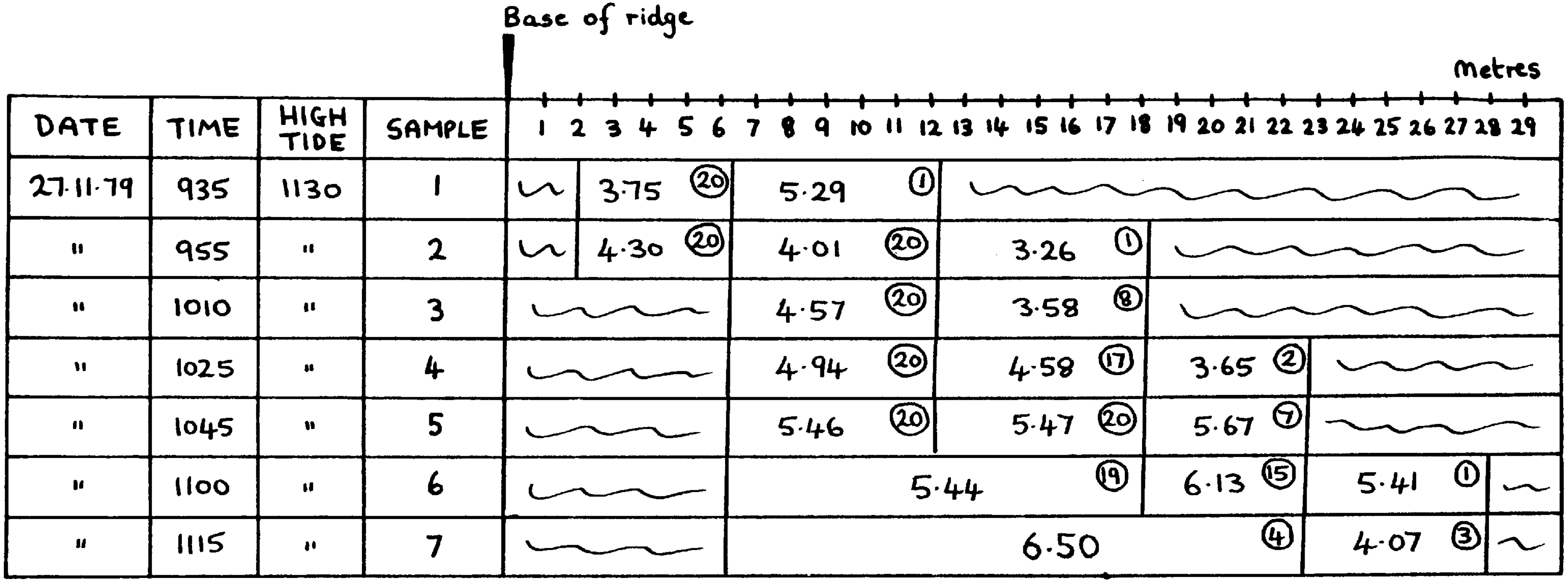
FIGURE 7.12A

Base of ridge

metres

DATE	TIME	HIGH TIDE	SAMPLE	1 2 3 4 5	6 7 8 9	10 11 12 13	14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
13.11.79	1120	1350	1	3.18 20	2.82 19		
"	1130	"	2	3.14 20	3.63 20		
"	1150	"	3	3.21 20	3.3 20	4.48 2	
"	1220	"	4	3.90 20	3.77 20	4.97 8	
"	1250	"	5	4.02 20	3.62 20	3.92 17	
"	1315	"	6	3.87 20	3.65 20	3.66 20	
"	1350	"	7	3.93 20	3.42 20	3.49 19	

FIGURE 7.12B



Base of ridge
Metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
27.11.79 935 1130 1 3.75 20 5.29 1
" 955 " 2 4.30 20 4.01 20 3.26 1
" 1010 " 3 4.57 20 3.58 8
" 1025 " 4 4.94 20 4.58 17 3.65 2
" 1045 " 5 5.46 20 5.47 20 5.67 7
" 1100 " 6 5.44 19 6.13 15 5.41 1
" 1115 " 7 6.50 4 4.07 3

FIGURE 7.12C

DATE	TIME	HIGH TIDE	SAMPLE	Base of ridge — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 metres
13.12.79	1210	1330	1	4.85 (8) 4.87 (8)
"	1250	"	2	4.73 (16)
"	1330	1330	3	5.27 (20)
			4	
			5	
			6	
			7	

FIGURE 7.12D

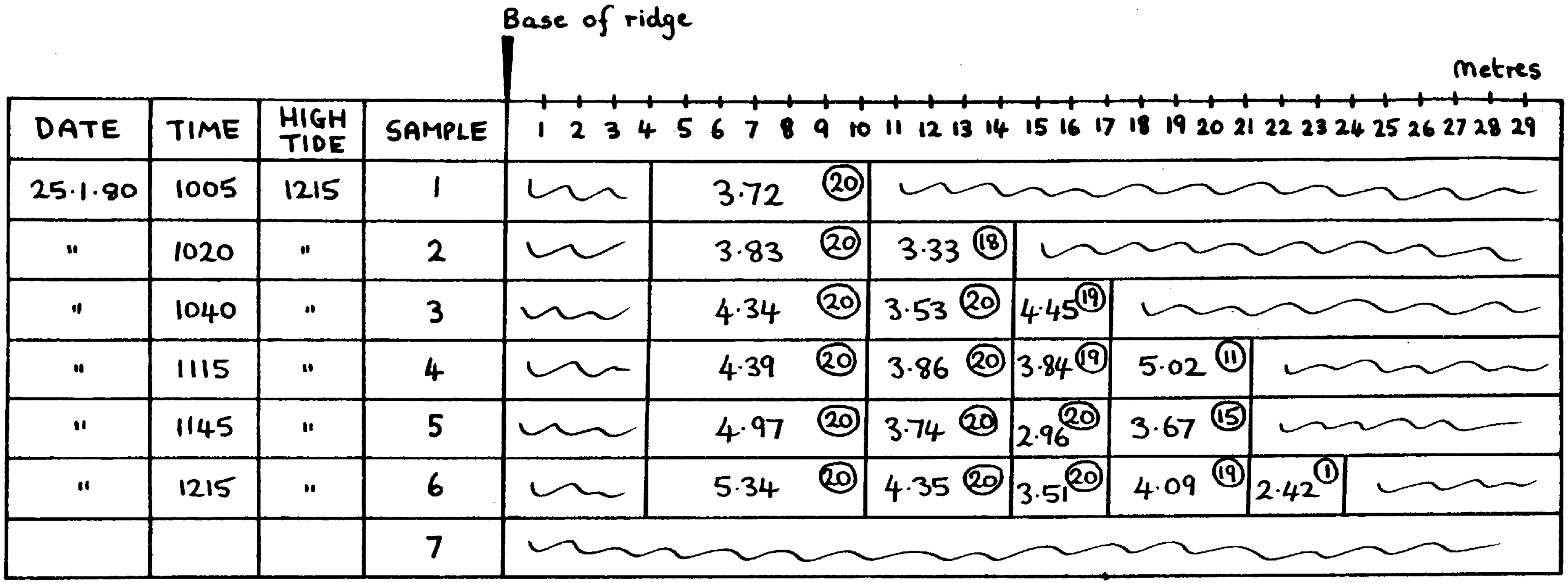

Base of ridge
metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
25.1.80
1005
1215
1
3.72 20
"
1020
"
2
3.83 20
3.33 18
"
1040
"
3
4.34 20
3.53 20
4.45 19
"
1115
"
4
4.39 20
3.86 20
3.84 19
5.02 11
"
1145
"
5
4.97 20
3.74 20
2.96 20
3.67 15
"
1215
"
6
5.34 20
4.35 20
3.51 20
4.09 19
2.42 1
7

FIGURE 7.12E

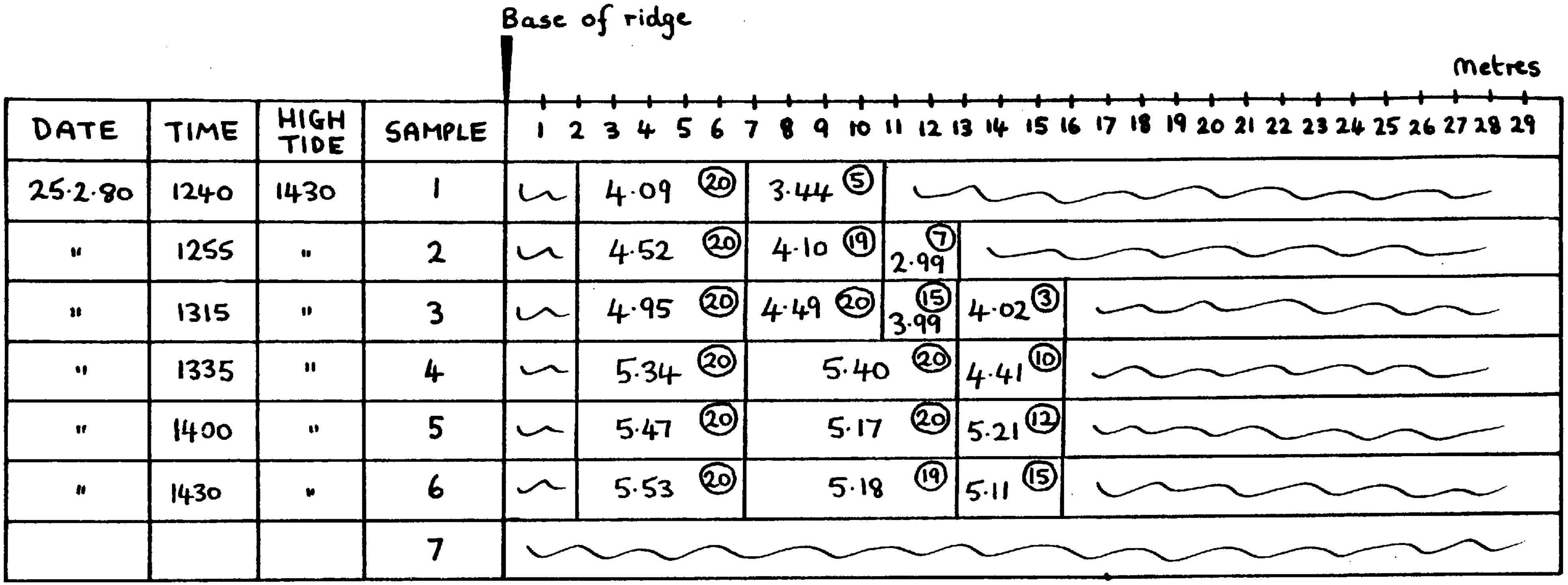

Base of ridge
metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
25·2·80
1240
1430
1
4·09 20
3·44 5
"
1255
"
2
4·52 20
4·10 19
2·99 7
"
1315
"
3
4·95 20
4·49 20
3·99 15
4·02 3
"
1335
"
4
5·34 20
5·40 20
4·41 10
"
1400
"
5
5·47 20
5·17 20
5·21 12
"
1430
"
6
5·53 20
5·18 19
5·11 15
7

FIGURE 7.12F

DATE	TIME	HIGH TIDE	SAMPLE	Base of ridge — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 Metres			
11·3·80	1100	1245	1	3·59 20			
"	1120	"	2	3·77 20	3·92 16		
"	1140	"	3	4·34 20	4·12 20	3·22 5	
"	1200	"	4	4·35 20	4·16 18	3·79 15	
"	1220	"	5	4·30 18	4·29 18	4·27 18	
"	1245	"	6	4·26 20			
			7				

FIGURE 7.12G

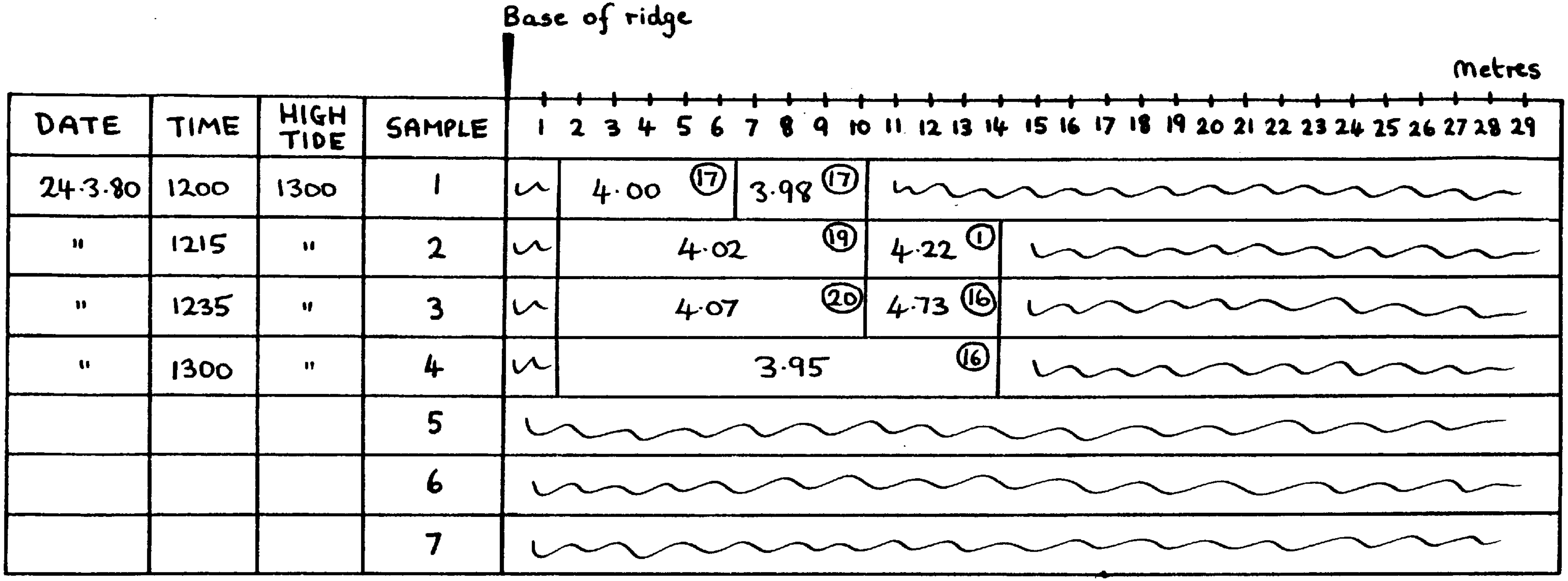
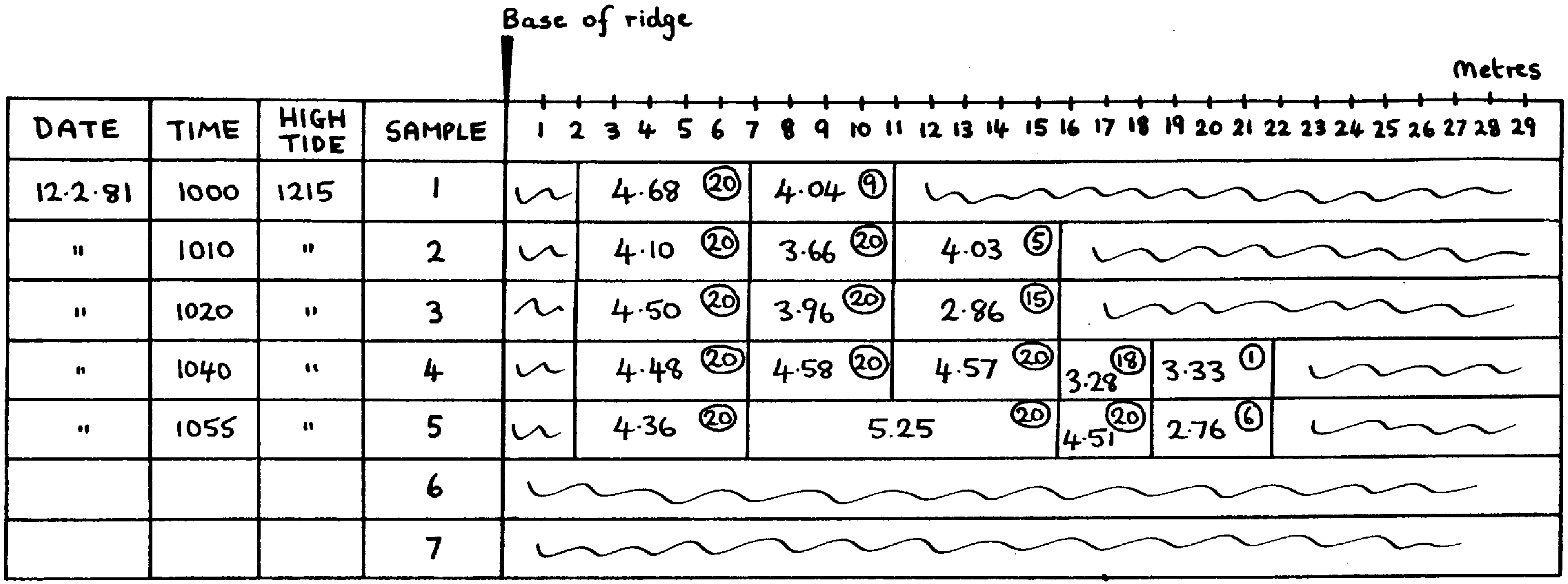

Base of ridge
Metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
24.3.80
1200
1300
1
4.00 17
3.98 17
"
1215
"
2
4.02 19
4.22 1
"
1235
"
3
4.07 20
4.73 16
"
1300
"
4
3.95 16
5
6
7

FIGURE 7.12H



Base of ridge
Metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
12·2·81
1000
1215
1
4·68 20
4·04 9
"
1010
"
2
4·10 20
3·66 20
4·03 5
"
1020
"
3
4·50 20
3·96 20
2·86 15
"
1040
"
4
4·48 20
4·58 20
4·57 20
3·28 18
3·33 1
"
1055
"
5
4·36 20
5.25 20
4·51 20
2·76 6
6
7

FIGURE 7.12I

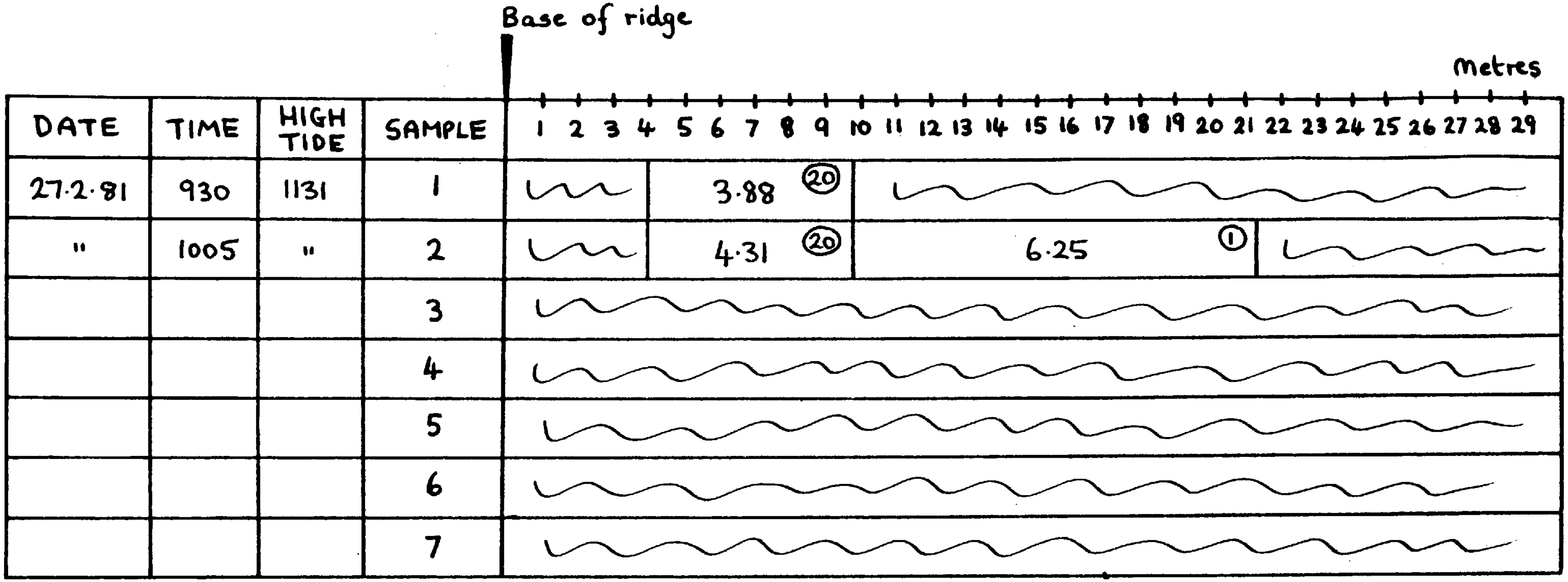

Base of ridge
Metres
DATE
TIME
HIGH TIDE
SAMPLE
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
27.2.81
930
1131
1
3.88
20
"
1005
"
2
4.31
20
6.25
1
3
4
5
6
7

FIGURE 7.12J

DATE	TIME	HIGH TIDE	SAMPLE	Base of ridge — Metres 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29
14.3.81	1035	1308	1	3.67 20
"	1050	"	2	3.62 20 / 3.02 14
"	1105	"	3	3.92 20
"	1150	"	4	3.85 20 / 1.90 16
"	1200	"	5	3.75 20 / 2.20 11
			6	
			7	

FIGURE 7.12K

Base of ridge

Metres 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

DATE	TIME	HIGH TIDE	SAMPLE	1–4	4–10	10–15	15–29
10.4.81	1012	1150	1		2.90 20	3.14 4	
"	1050	"	2		3.75 20	2.92 18	
"	1100	"	3		3.90 20	3.13 20	
"	1135	"	4		3.70 20	3.32 20	
			5				
			6				
			7				

FIGURE 7.12L

Base of ridge

DATE	TIME	HIGH TIDE	SAMPLE	Metres 1–29			
1·6·81	1630	1752	1	3·60 20			
"	1645	"	2	3·31 20	3·15 20		
"	1700	"	3	3·72 20	3·61 20	2·57 6	
"	1720	"	4	4·39 20	4·29 20	3·59 19	
"	1750	"	5	4·12 20	4·51 20	3·42 18	
			6				
			7				

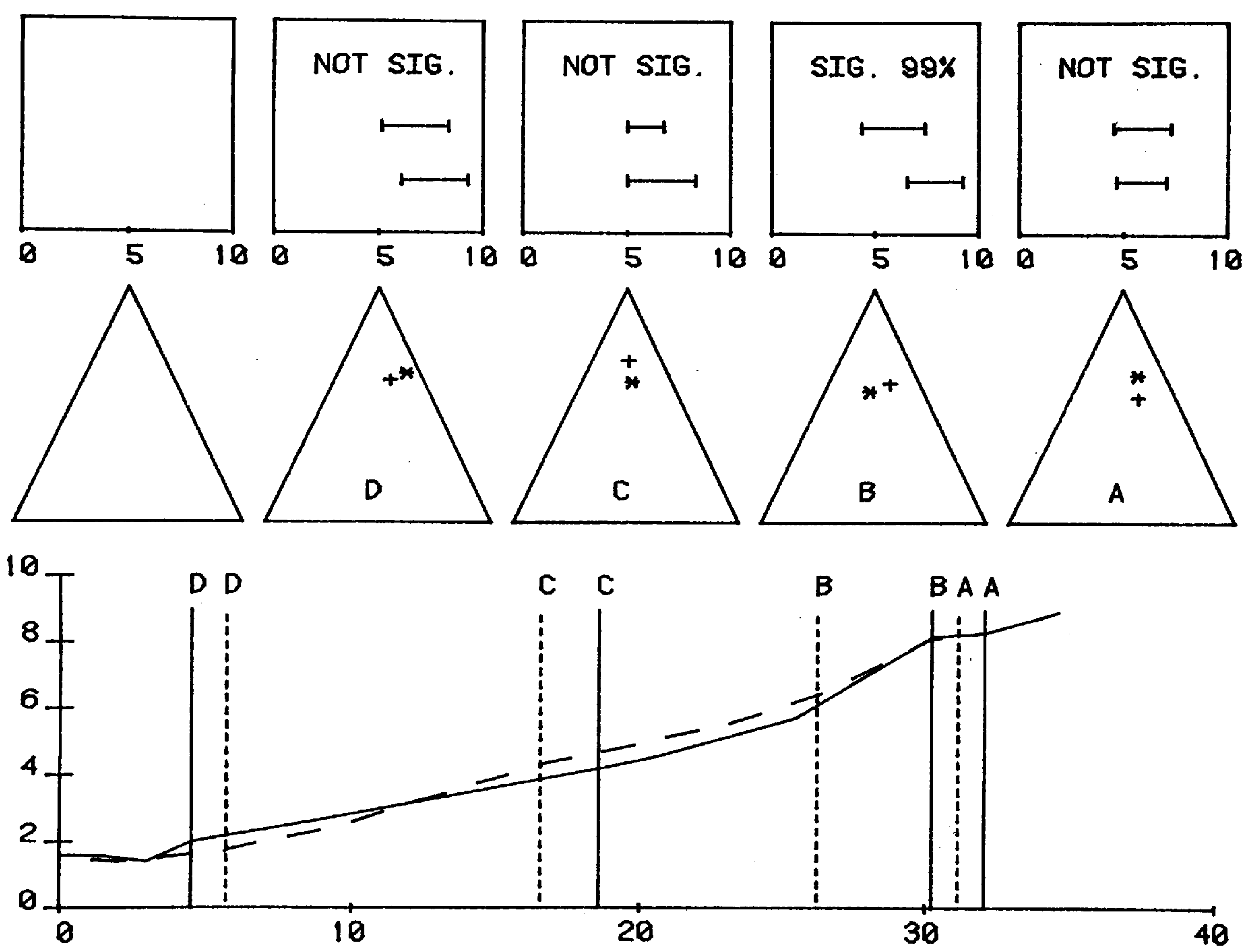
FIGURE 7.12M

FIGURES 7.13A-O SWASH VELOCITY SEDIMENT SAMPLE DATA

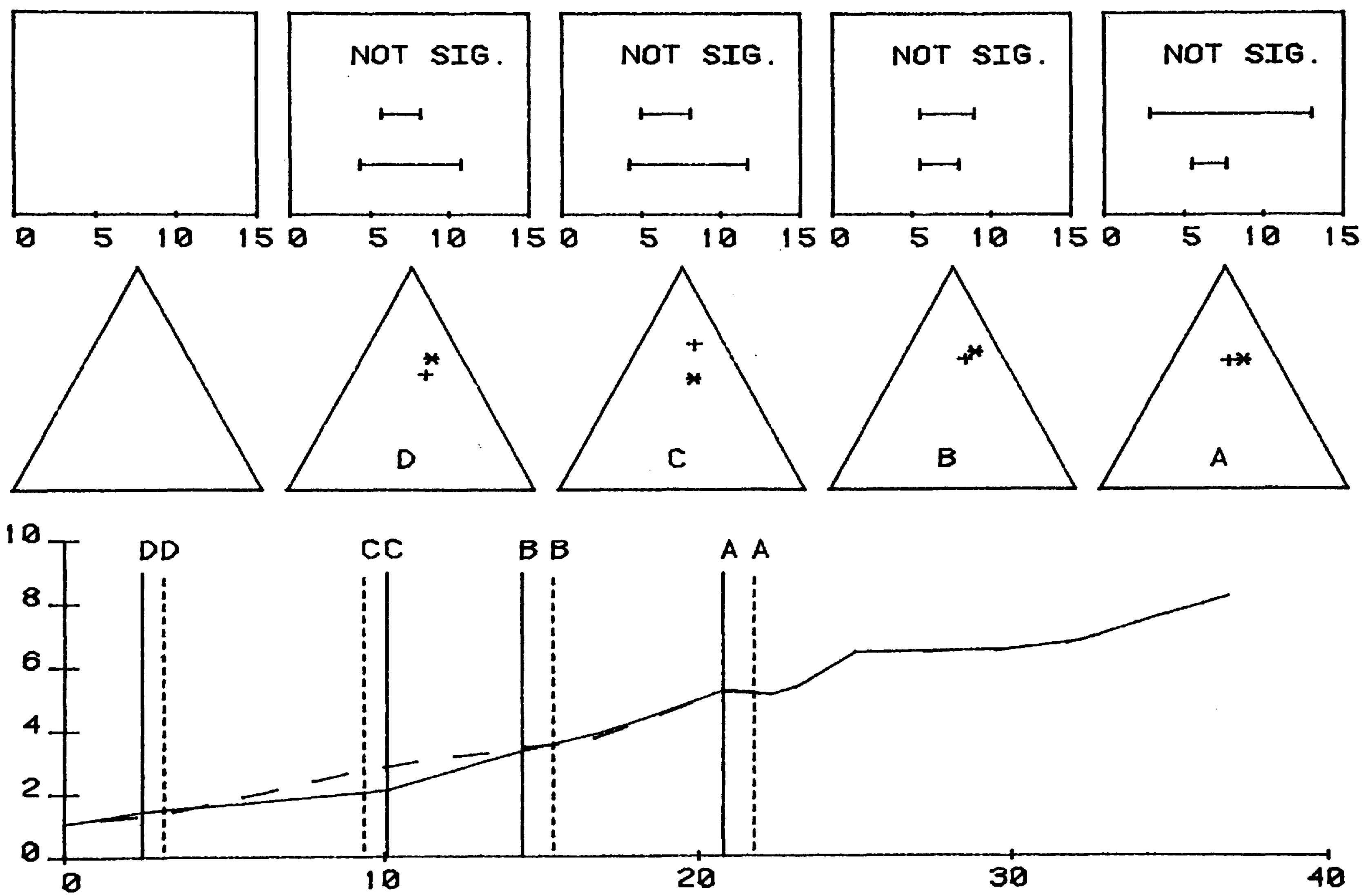
The lower third of each diagram shows the profile configuration before (solid) and after (broken) an experiment. Every effort was made to sample from the same area of beach before (solid vertical line) and after (dotted vertical line), so that samples could be usefully compared. The middle third shows the position of each sample's mean shape (asterisk - before, cross - after) on triangular Folk Diagrams (Section 3.2.2, Fig: 3.2).

The top third shows the mean particle size (C-axis) of each sample. The centre of each horizontal bar represents the mean value, and the bar ends indicate one standard deviation on either side. The lower bar represents the pre-experiment sample, and the higher bar represents the post-experiment sample. A Chi-square (non-parametric) statistical test was carried out on each pair of samples to identify significant differences between size data.

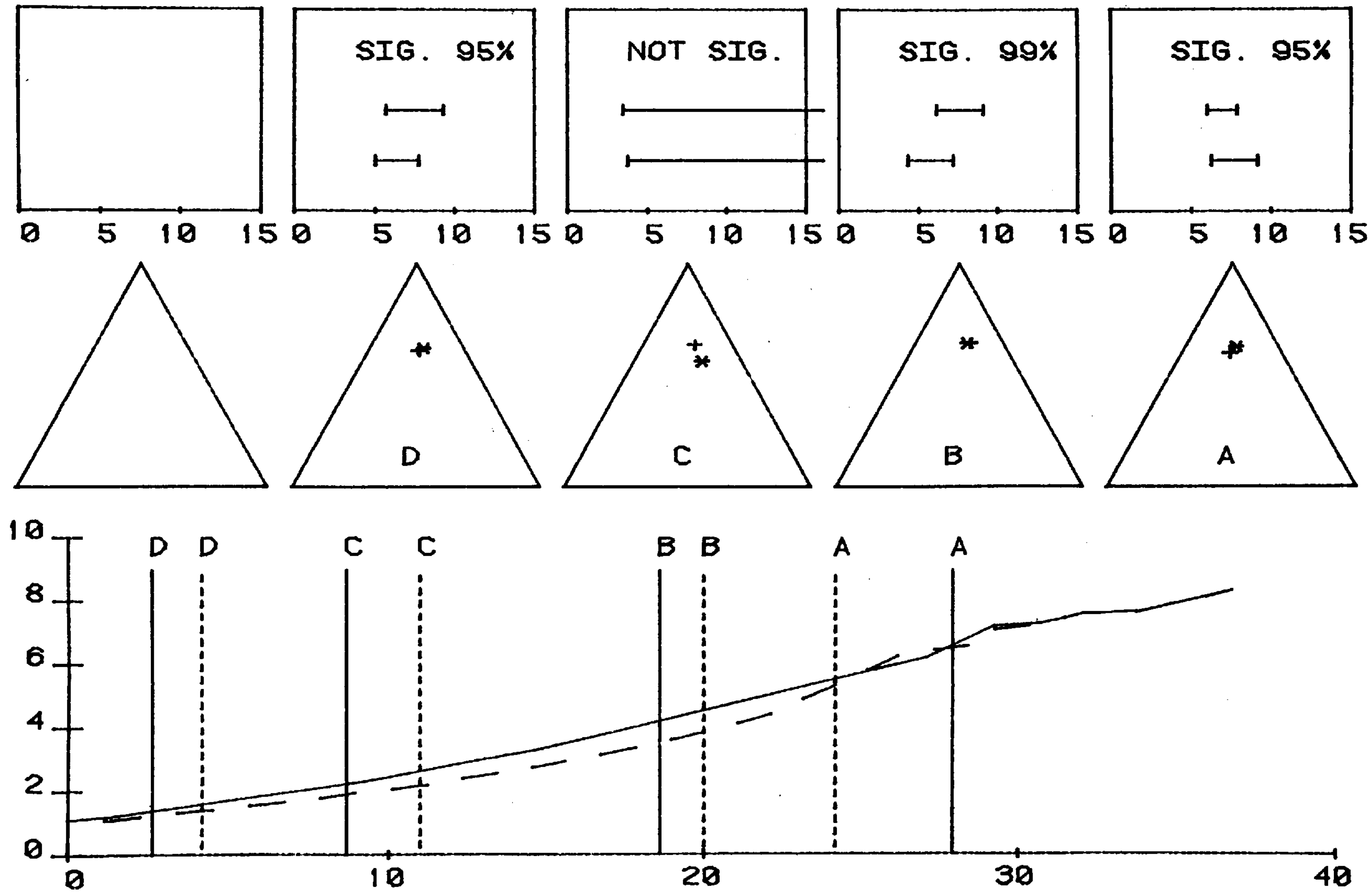
SWASH VELOCITY FOR: 01/11/79 SEDIMENT SAMPLE DATA 7.13A



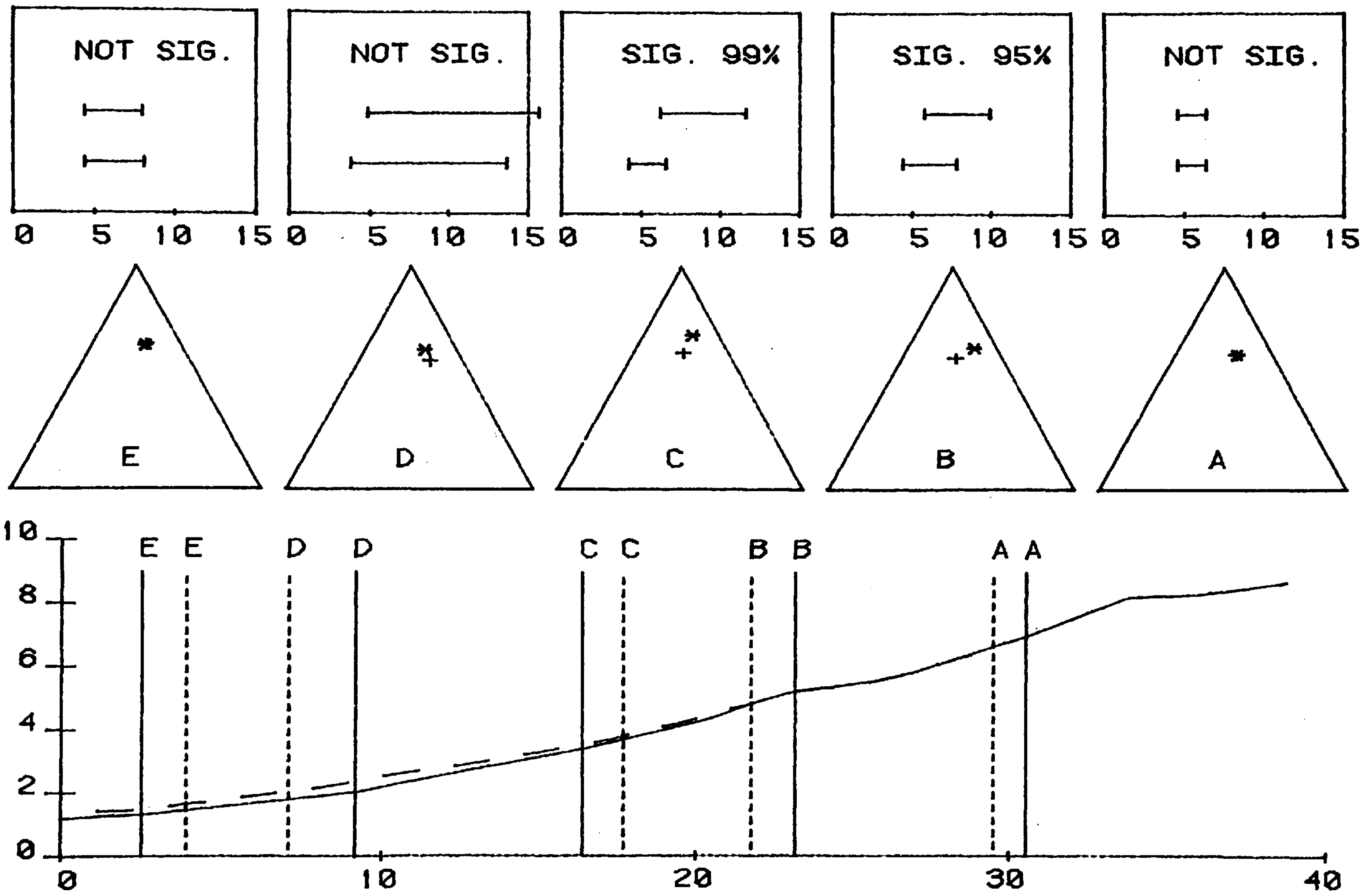
SWASH VELOCITY FOR: 13/11/79 SEDIMENT SAMPLE DATA 7.13B



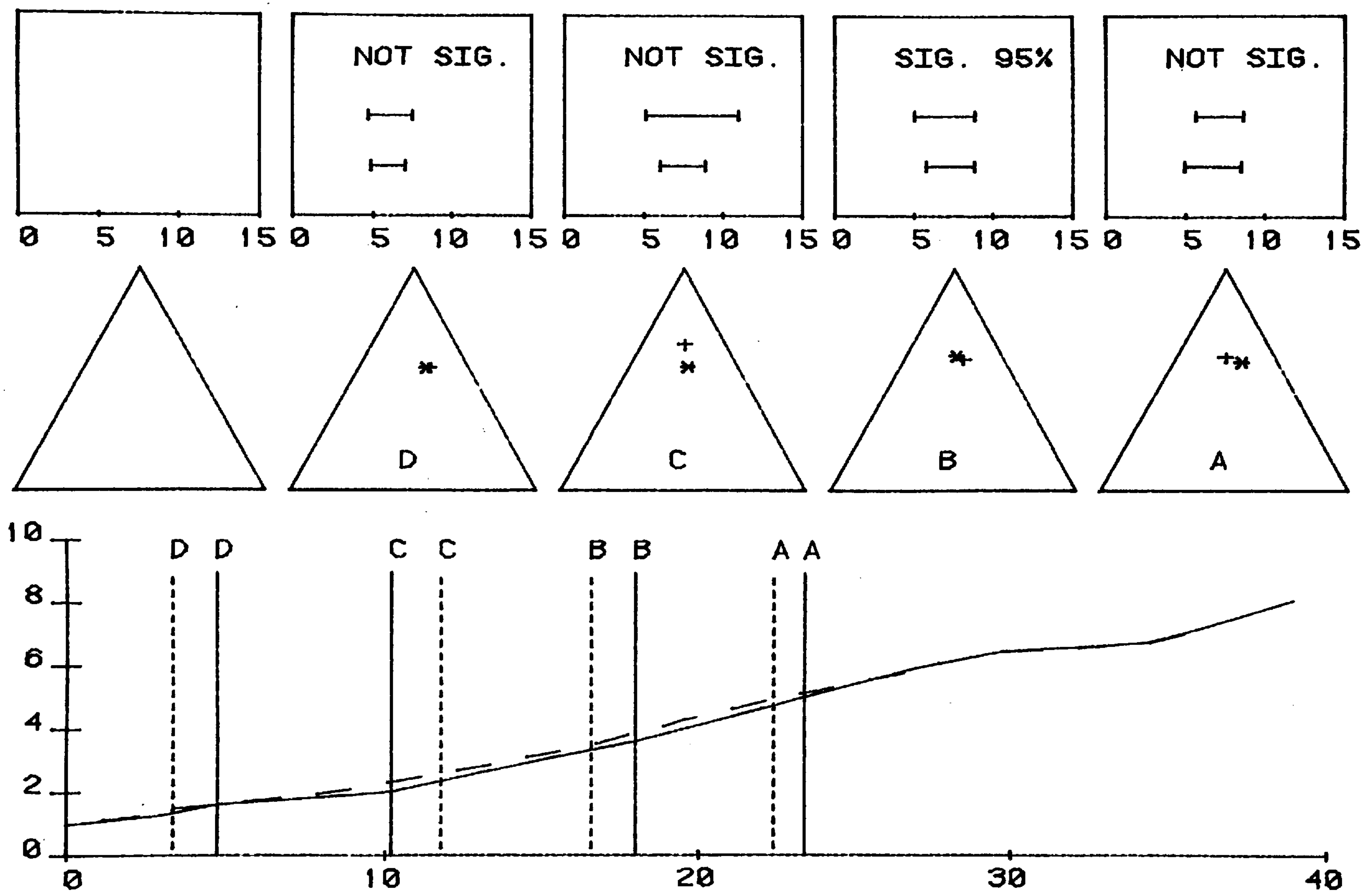
SWASH VELOCITY FOR: 27/11/79 SEDIMENT SAMPLE DATA 7.13c



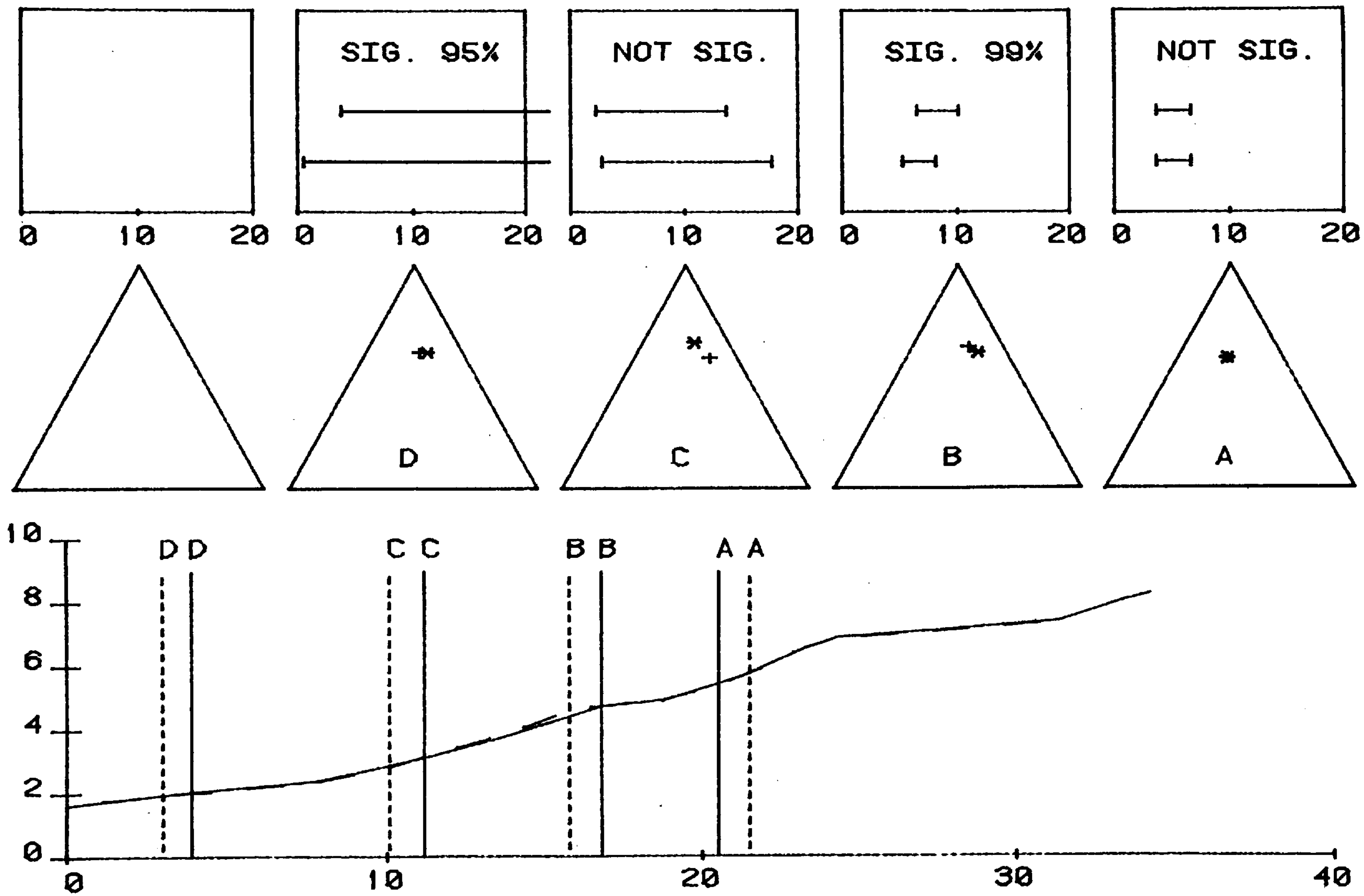
SWASH VELOCITY FOR: 13/12/79 SEDIMENT SAMPLE DATA 7.13D



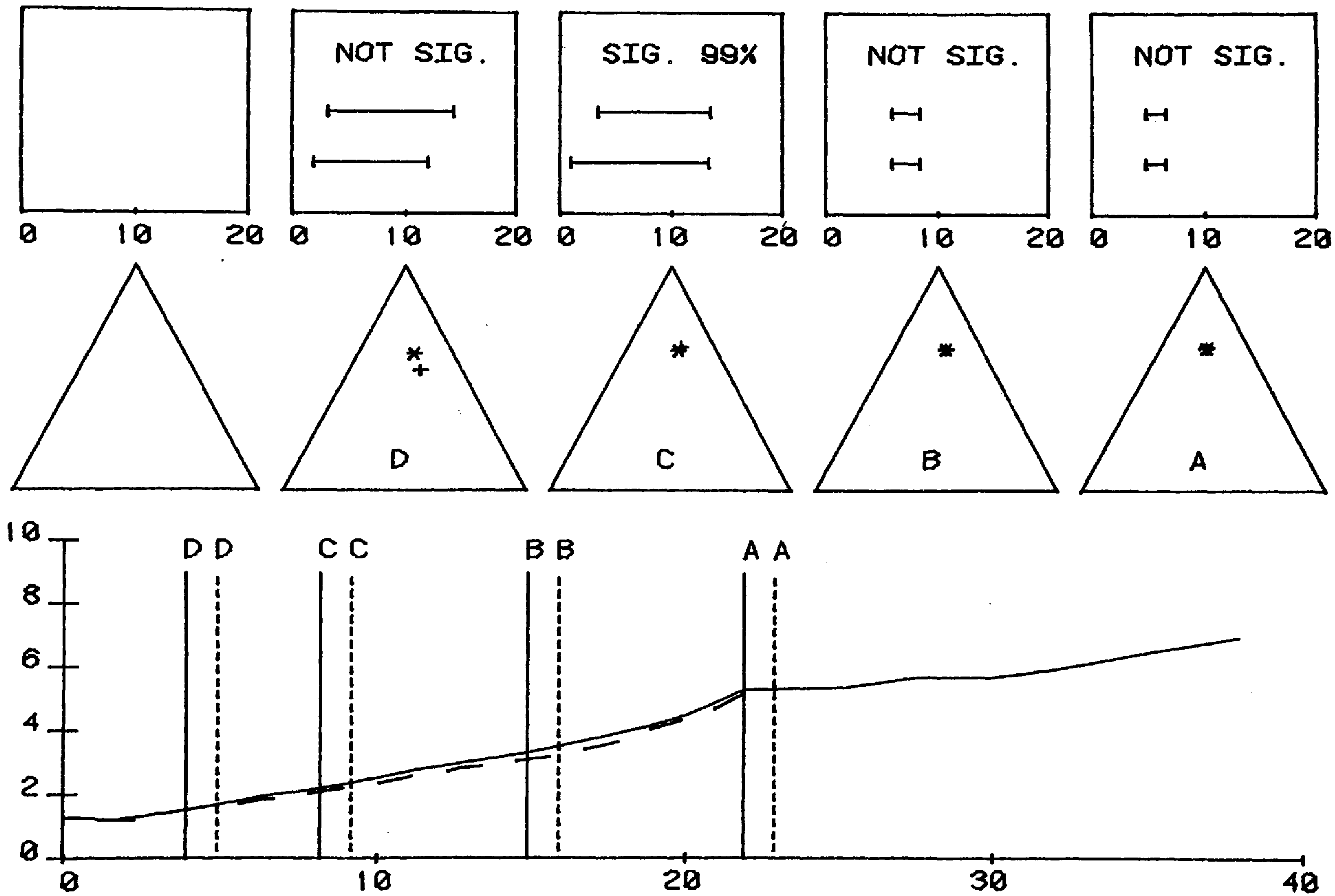
SWASH VELOCITY FOR: 25/01/80 SEDIMENT SAMPLE DATA 7.13E



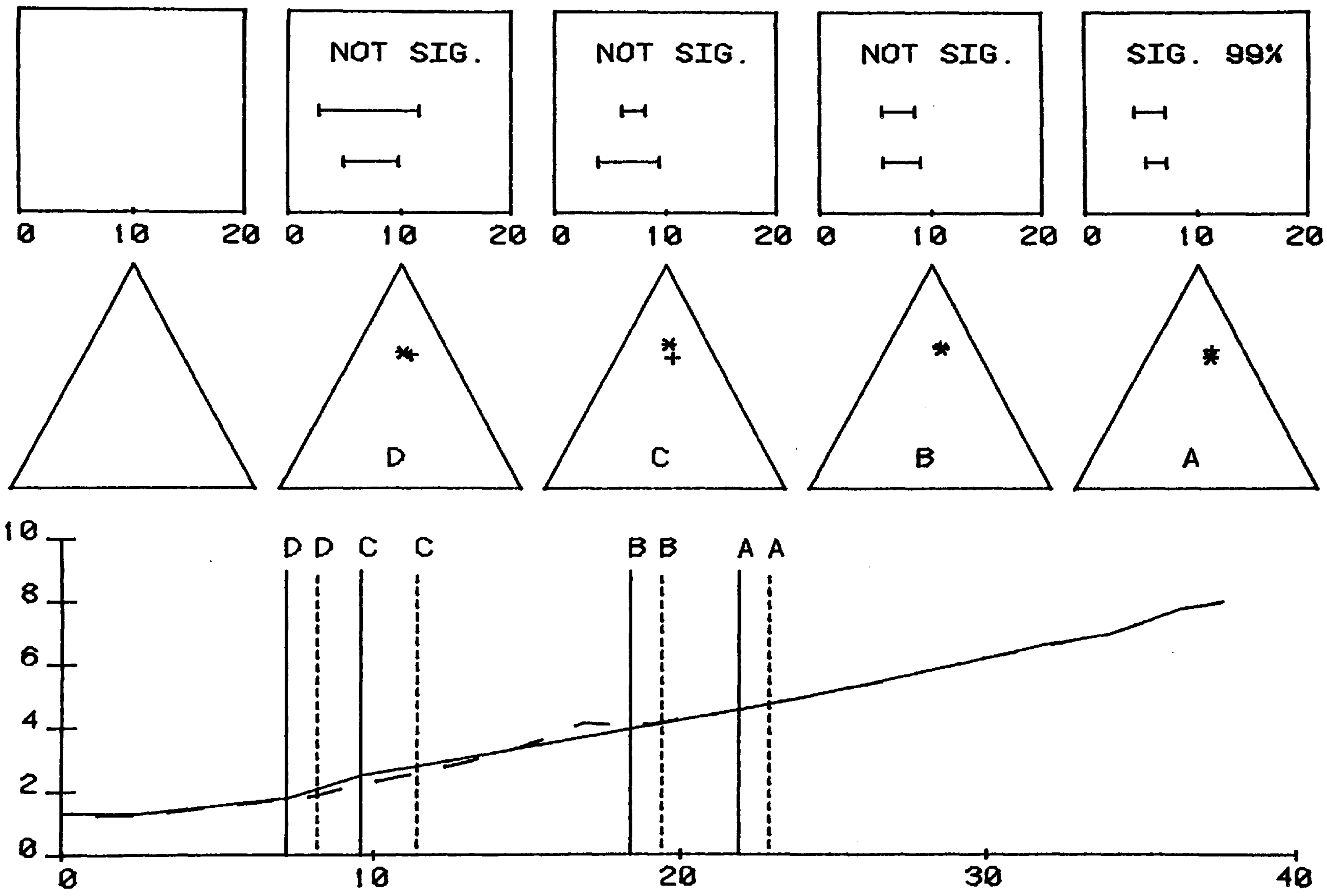
SWASH VELOCITY FOR: 25/02/80 SEDIMENT SAMPLE DATA 7.13F



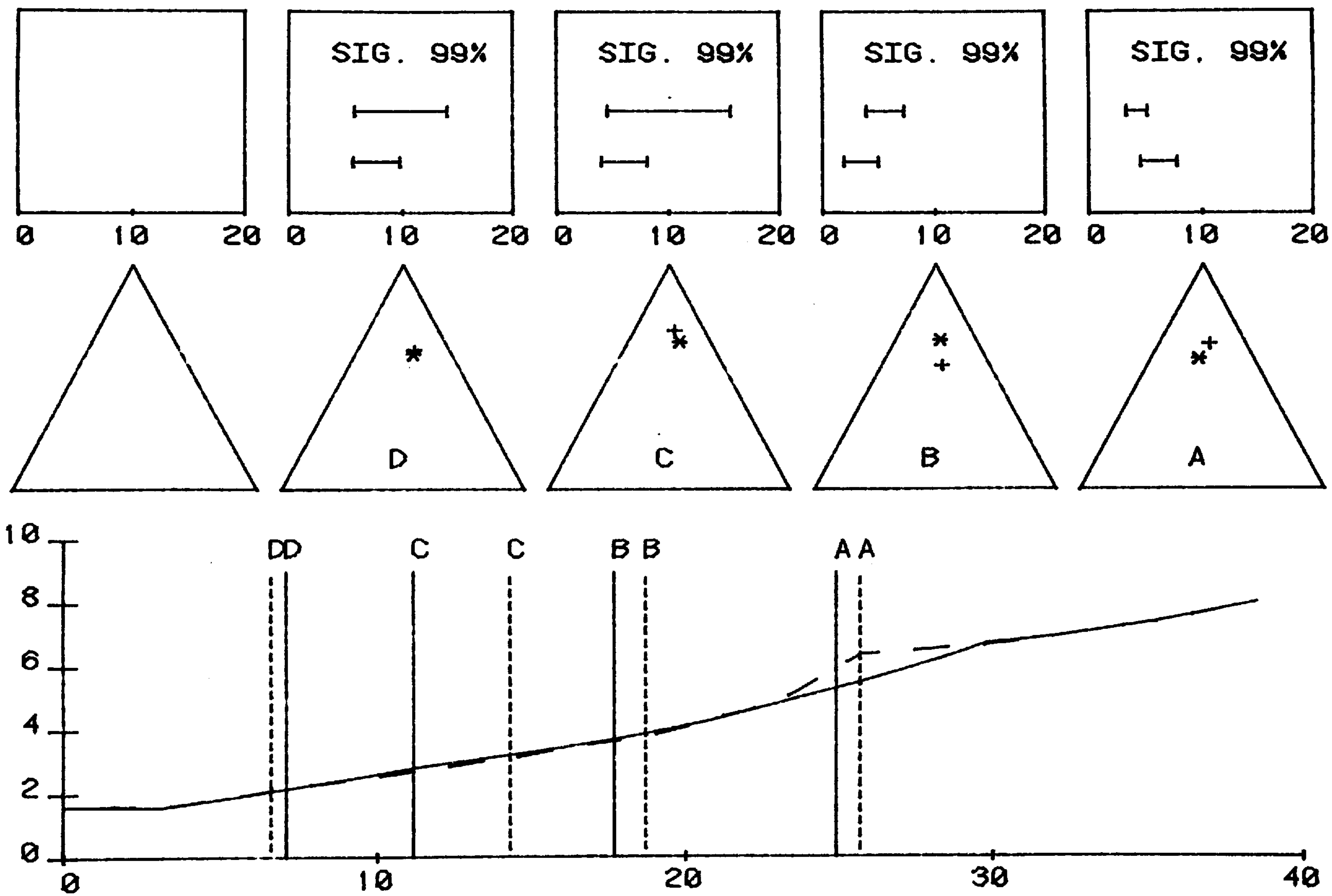
SWASH VELOCITY FOR: 11/03/80 SEDIMENT SAMPLE DATA 7.13G



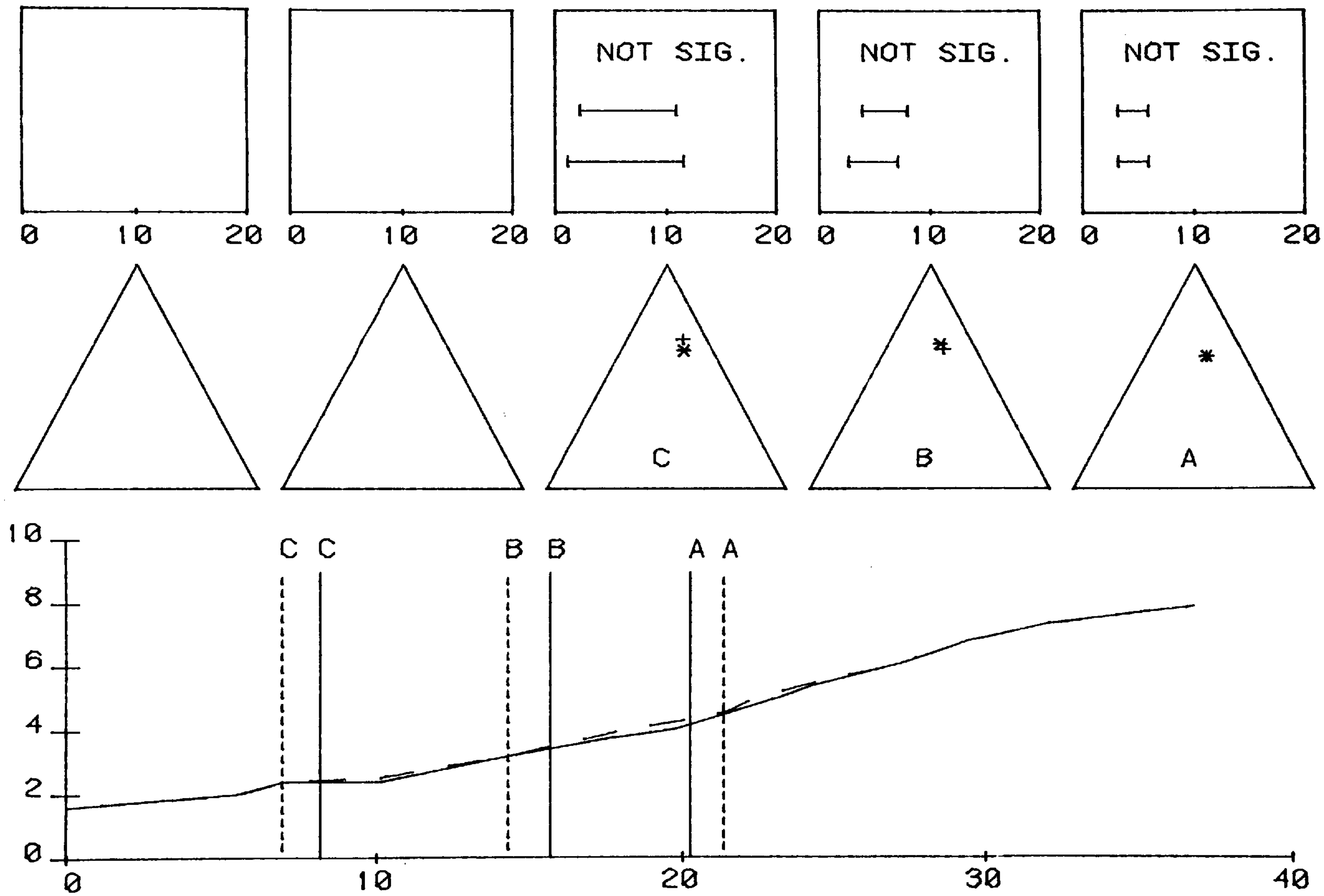
SWASH VELOCITY FOR: 24/03/80 SEDIMENT SAMPLE DATA 7.13H



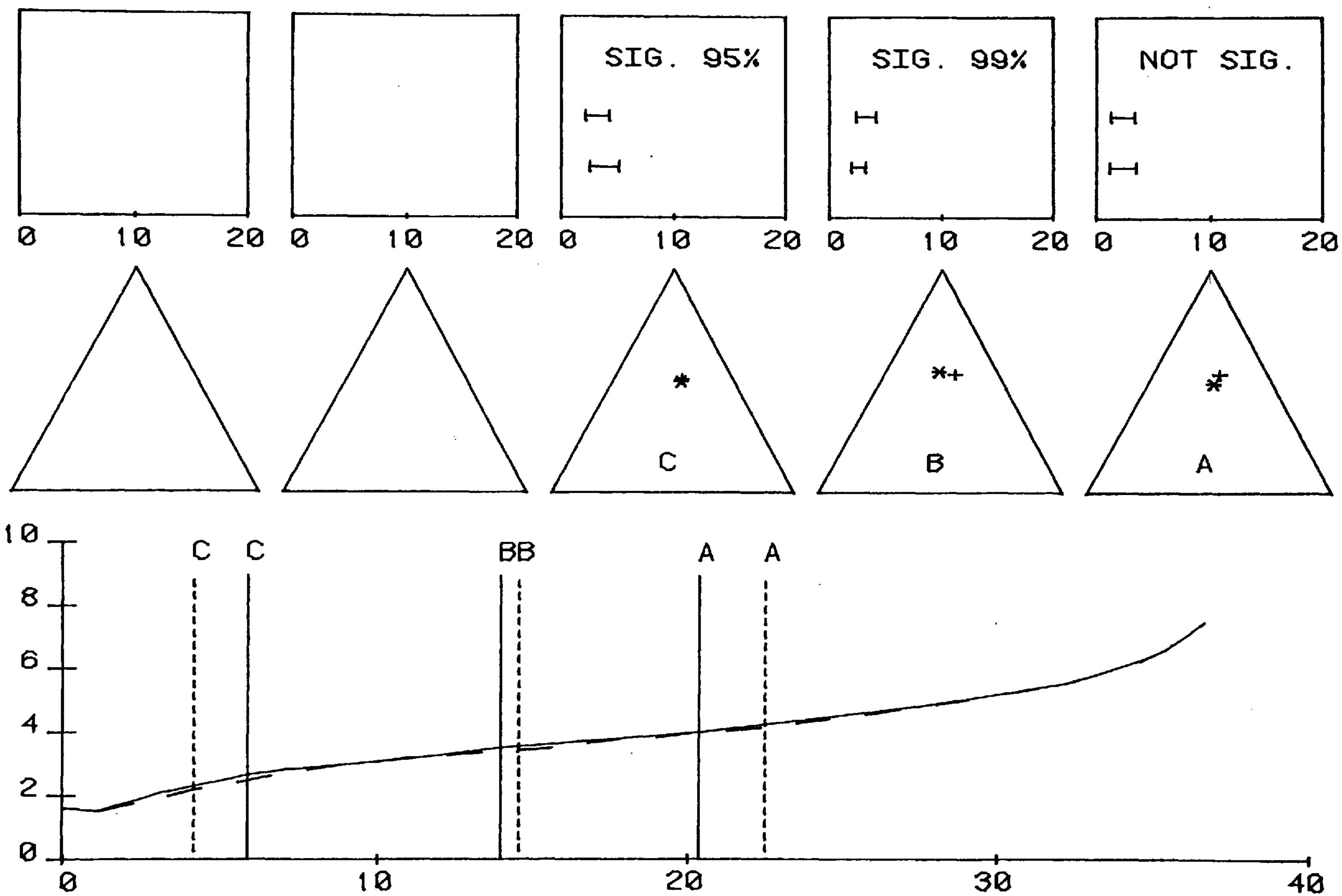
SWASH VELOCITY FOR: 12/02/81 SEDIMENT SAMPLE DATA 7.13I



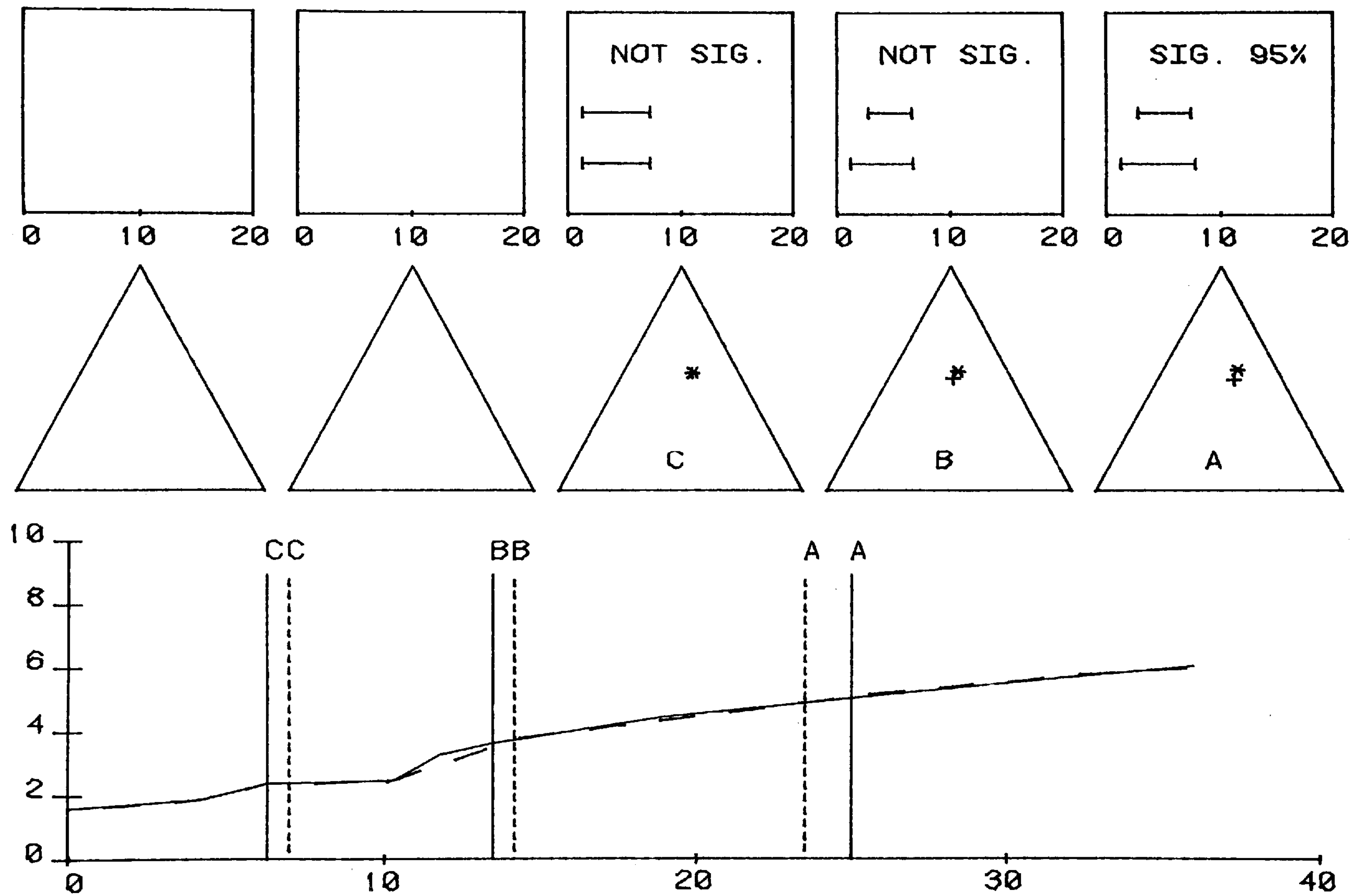
SWASH VELOCITY FOR: 27/02/81 SEDIMENT SAMPLE DATA 7.13J

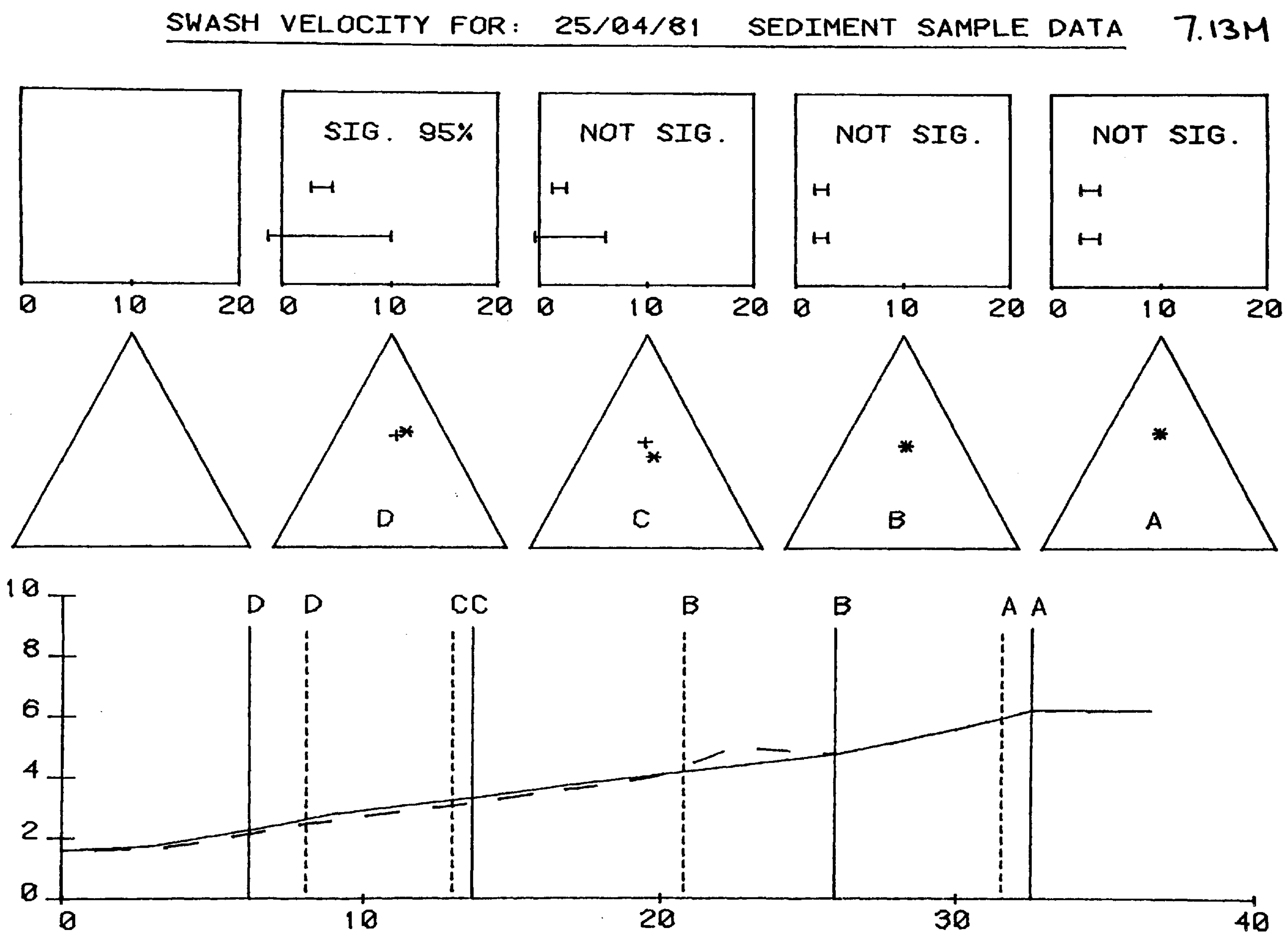


SWASH VELOCITY FOR: 14/03/81 SEDIMENT SAMPLE DATA 7.13K

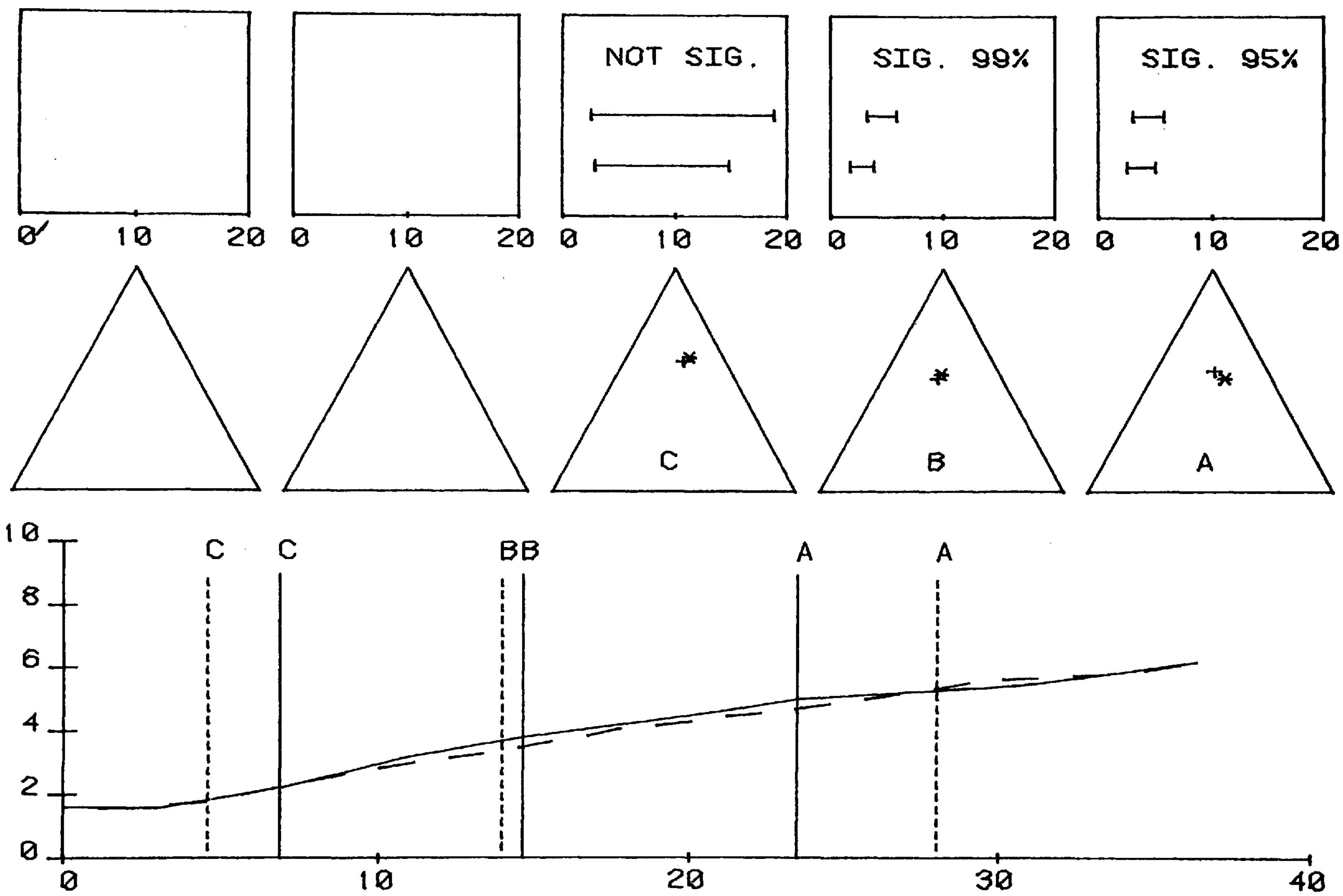


SWASH VELOCITY FOR: 10/04/81 SEDIMENT SAMPLE DATA 7.13L




SWASH VELOCITY FOR: 25/04/81 SEDIMENT SAMPLE DATA 7.13M
SIG. 95%
NOT SIG.
NOT SIG.
NOT SIG.
0 10 20
D
C
B
A
D D CC B B A A
0 2 4 6 8 10
0 10 20 30 40

SWASH VELOCITY FOR: 09/05/81 SEDIMENT SAMPLE DATA 7.13N



SWASH VELOCITY FOR: 01/06/81 SEDIMENT SAMPLE DATA 7.130

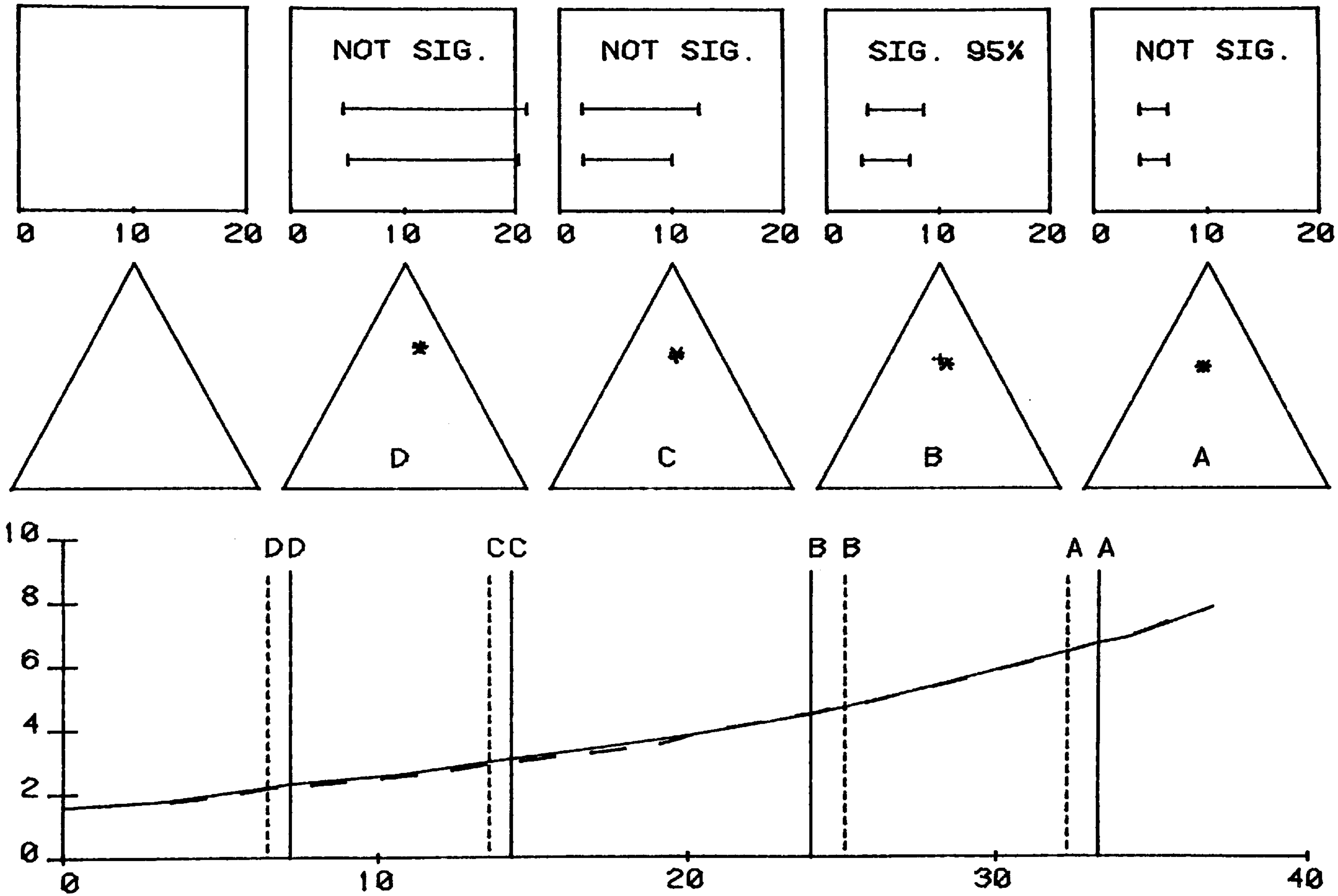
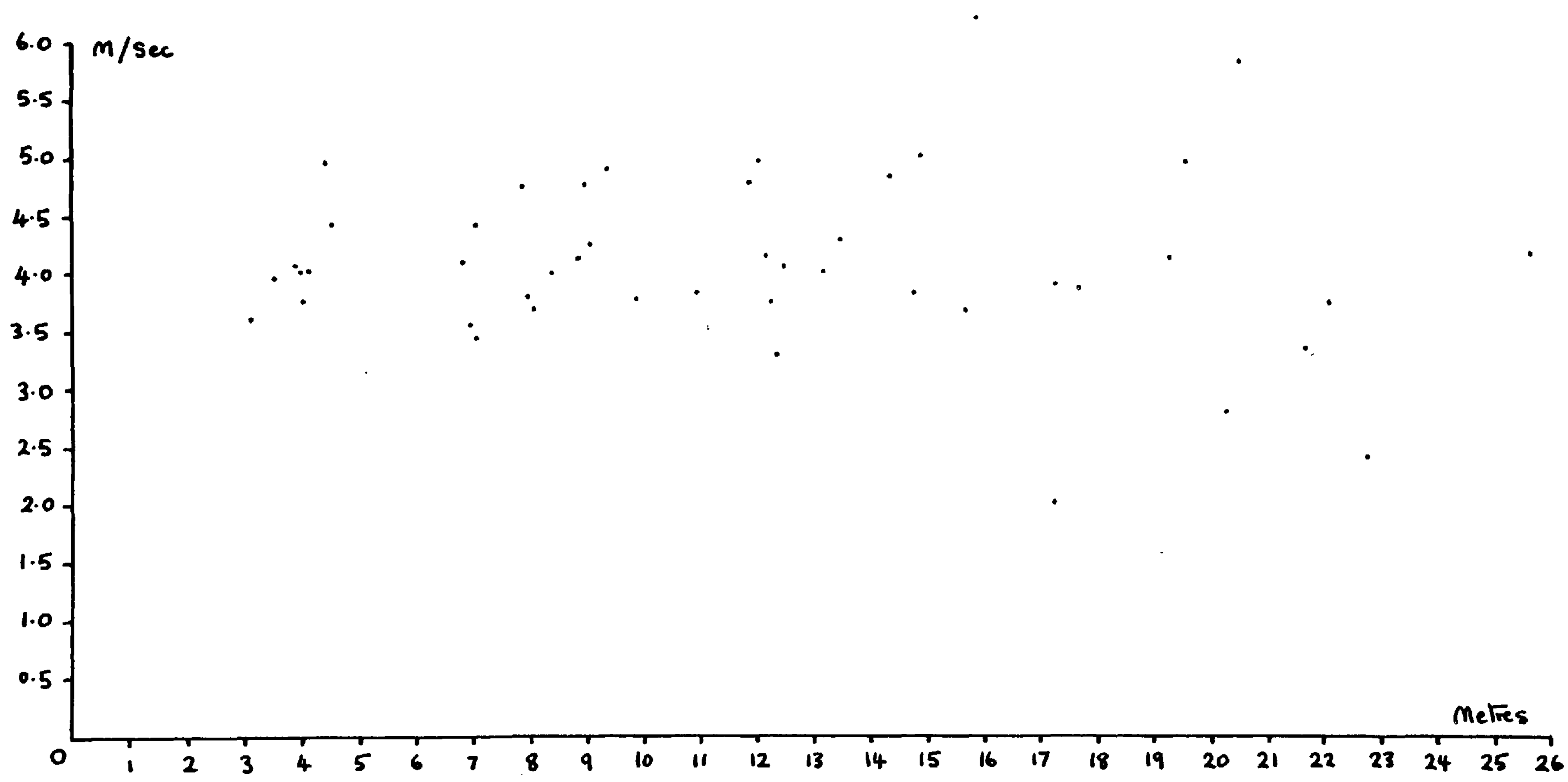
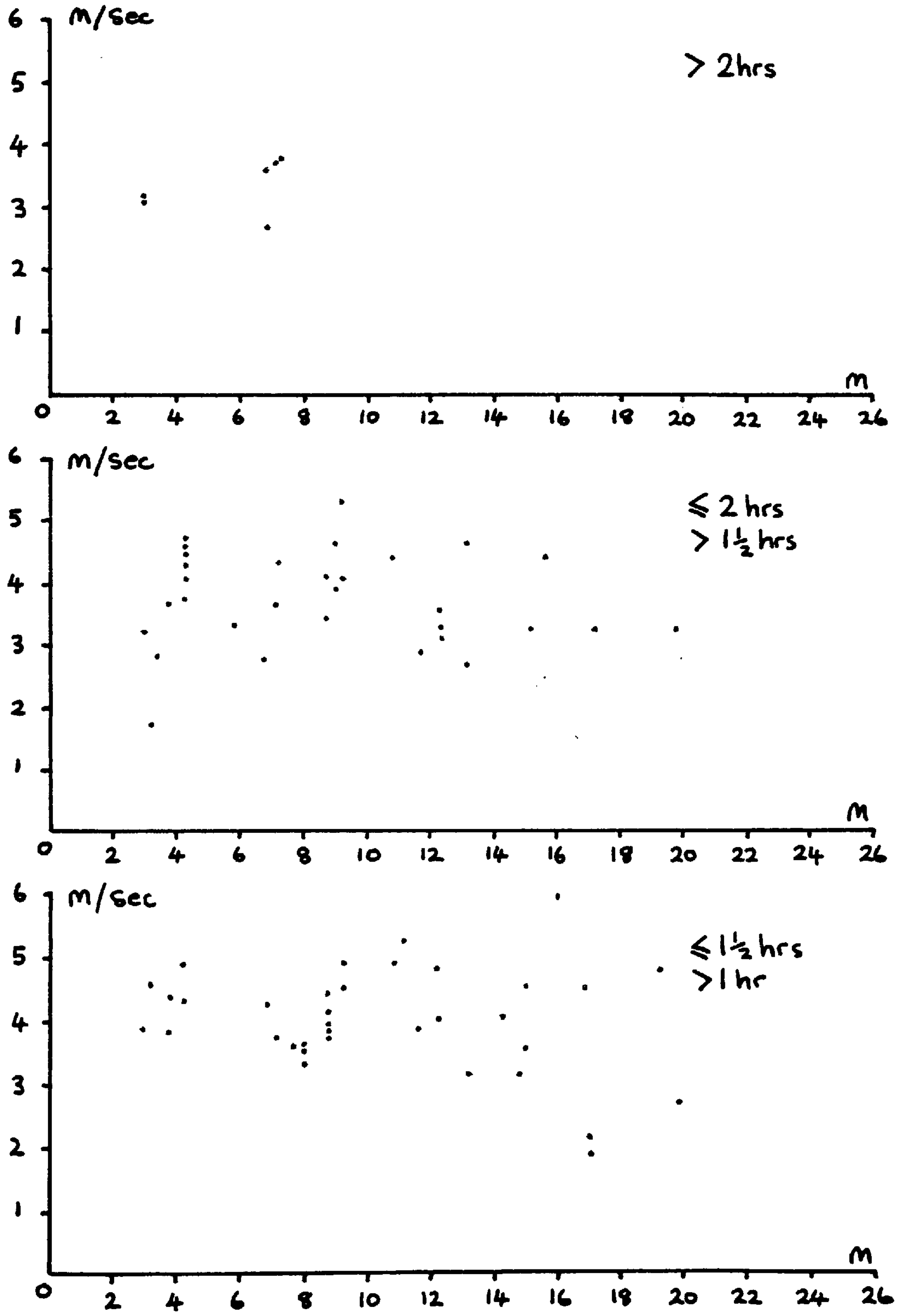


FIGURE 7.14 THE DISTRIBUTION OF MEAN SWASH VELOCITY RESULTS ACROSS THE BEACH PROFILE

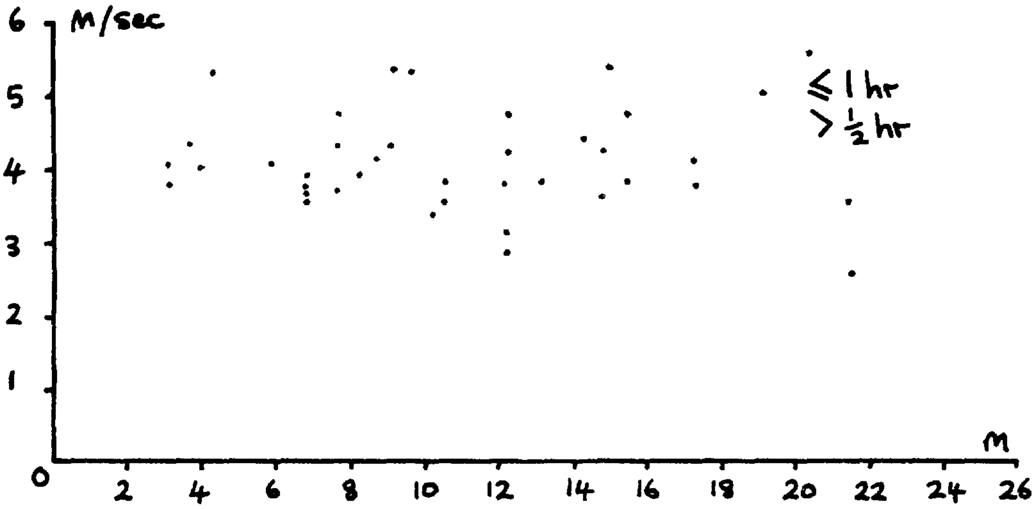
(The origin on the horizontal axis represents the base of the ridge)

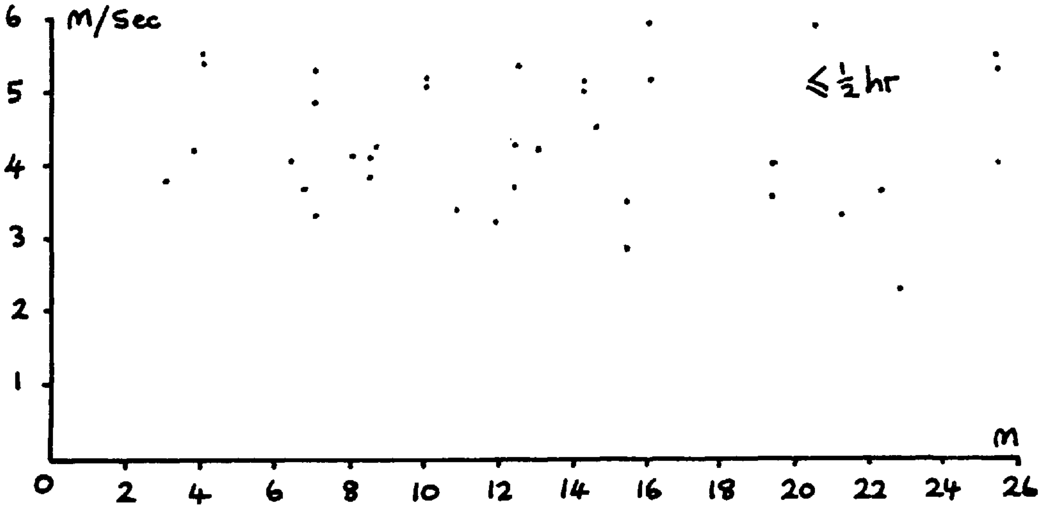




FIGURES 7.15A-E THE DISTRIBUTION OF MEAN SWASH VELOCITY RESULTS ACROSS THE BEACH PROFILE DURING FIVE PHASES BEFORE HIGH TIDE

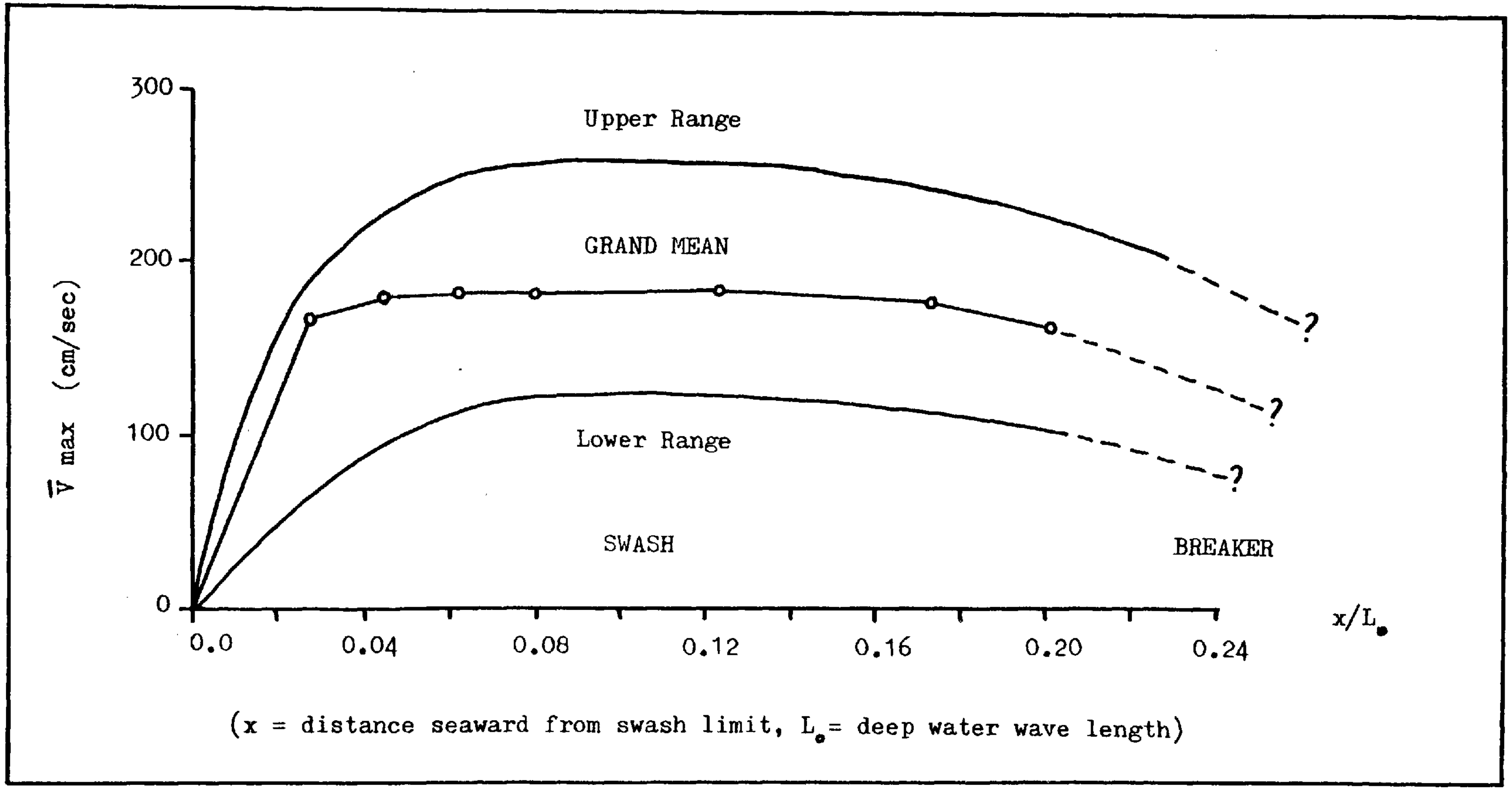
(The origin on the horizontal axes represents the base of the ridge)





FIGURES 7.15A–E <u>THE DISTRIBUTION OF MEAN SWASH VELOCITY RESULTS ACROSS THE BEACH PROFILE DURING FIVE PHASES BEFORE HIGH TIDE</u>

(The origin on the horizontal axes represents the base of the ridge)



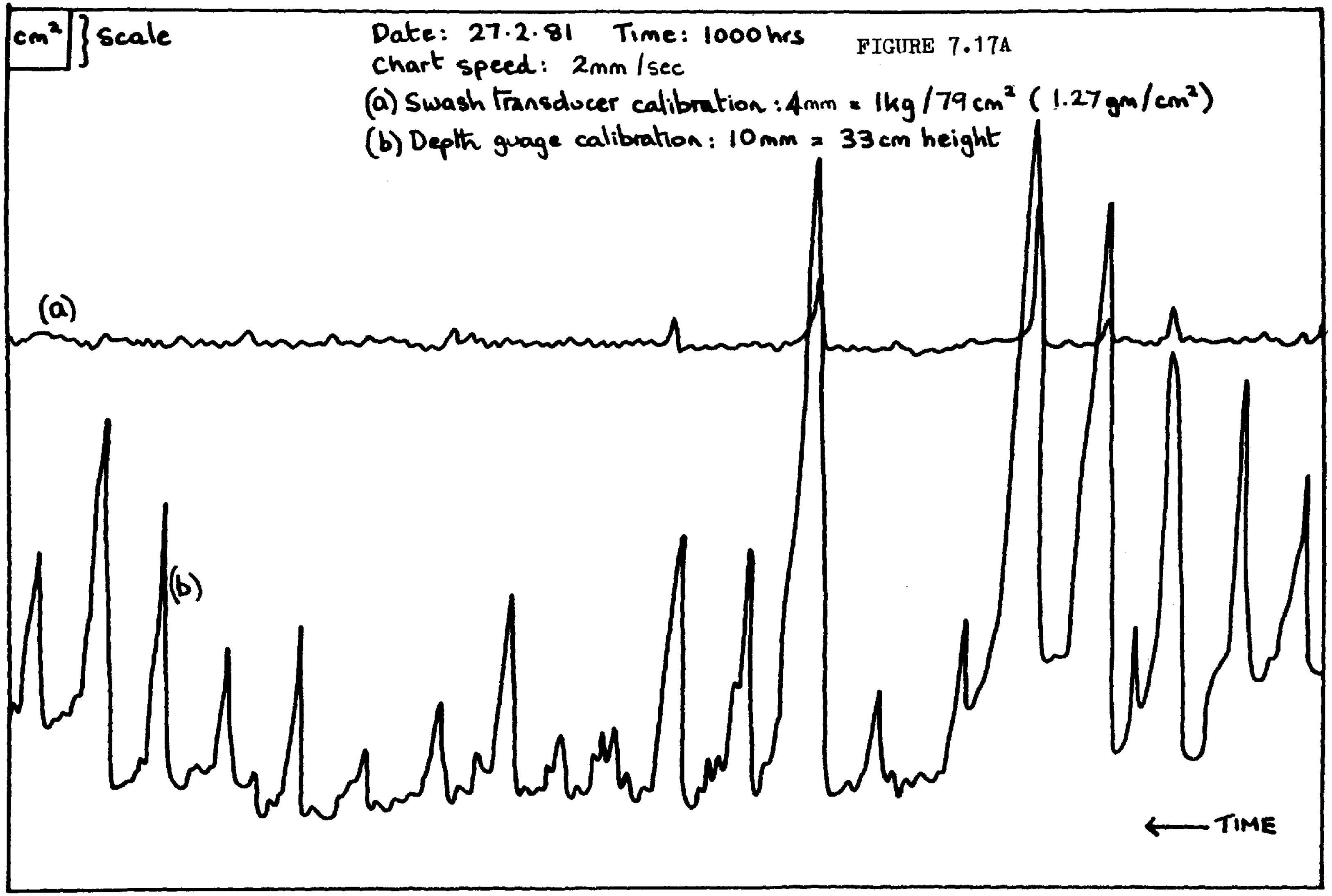
SWASH VELOCITY DISTRIBUTION ACROSS BEACH FACE ACCORDING TO KIRK (1970, Fig:29A)

FIGURE 7.16

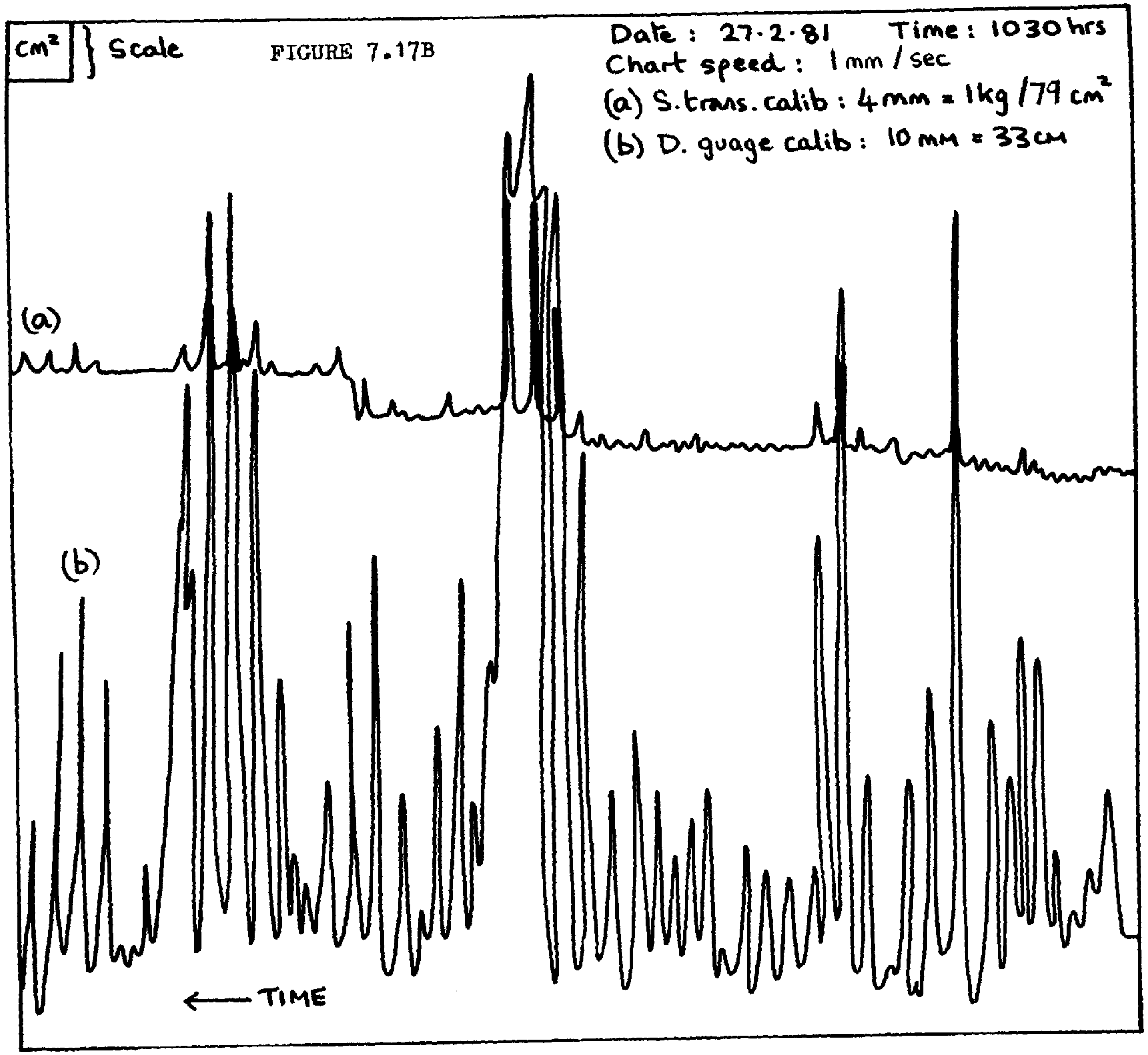
FIGURES 7.17A-C, 7.18A-B, 7.19A-E, 7.20A-D, 7.21A-G, 7.22A-D

Analogue records of six experiments using the swash force transducers. See section 7.6.3 of the text.

FIGURE 7.17A



cm² } Scale
Date: 27·2·81 Time: 1000 hrs
Chart speed: 2mm /sec
(a) Swash transducer calibration: 4mm = 1kg / 79 cm² (1.27 gm/cm²)
(b) Depth guage calibration: 10mm = 33 cm height
(a)
(b)
TIME


cm²
Scale
FIGURE 7.17B
Date : 27·2·81 Time : 1030 hrs
Chart speed : 1 mm / sec
(a) S. trans. calib : 4 mm = 1kg / 79 cm²
(b) D. guage calib : 10 mm = 33 cm
(a)
(b)
TIME

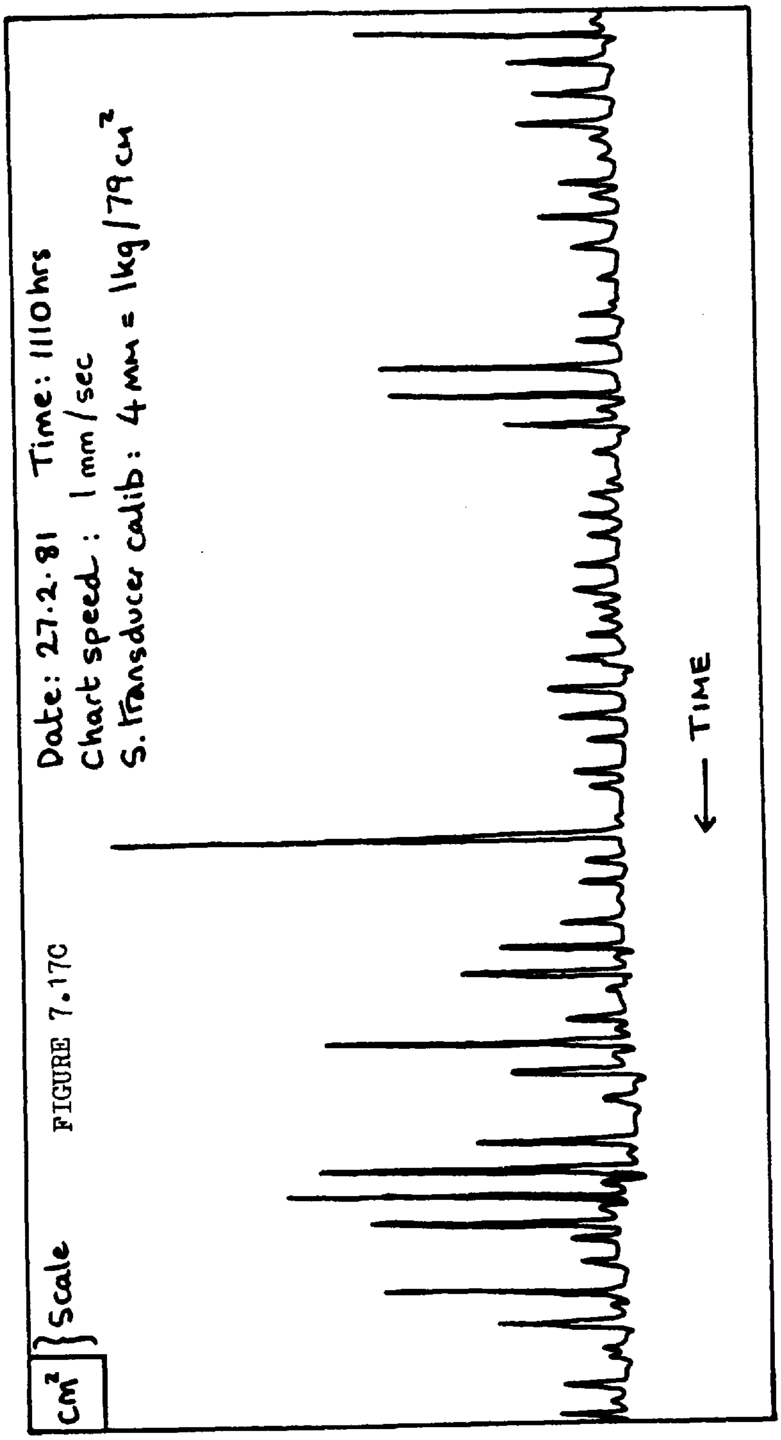
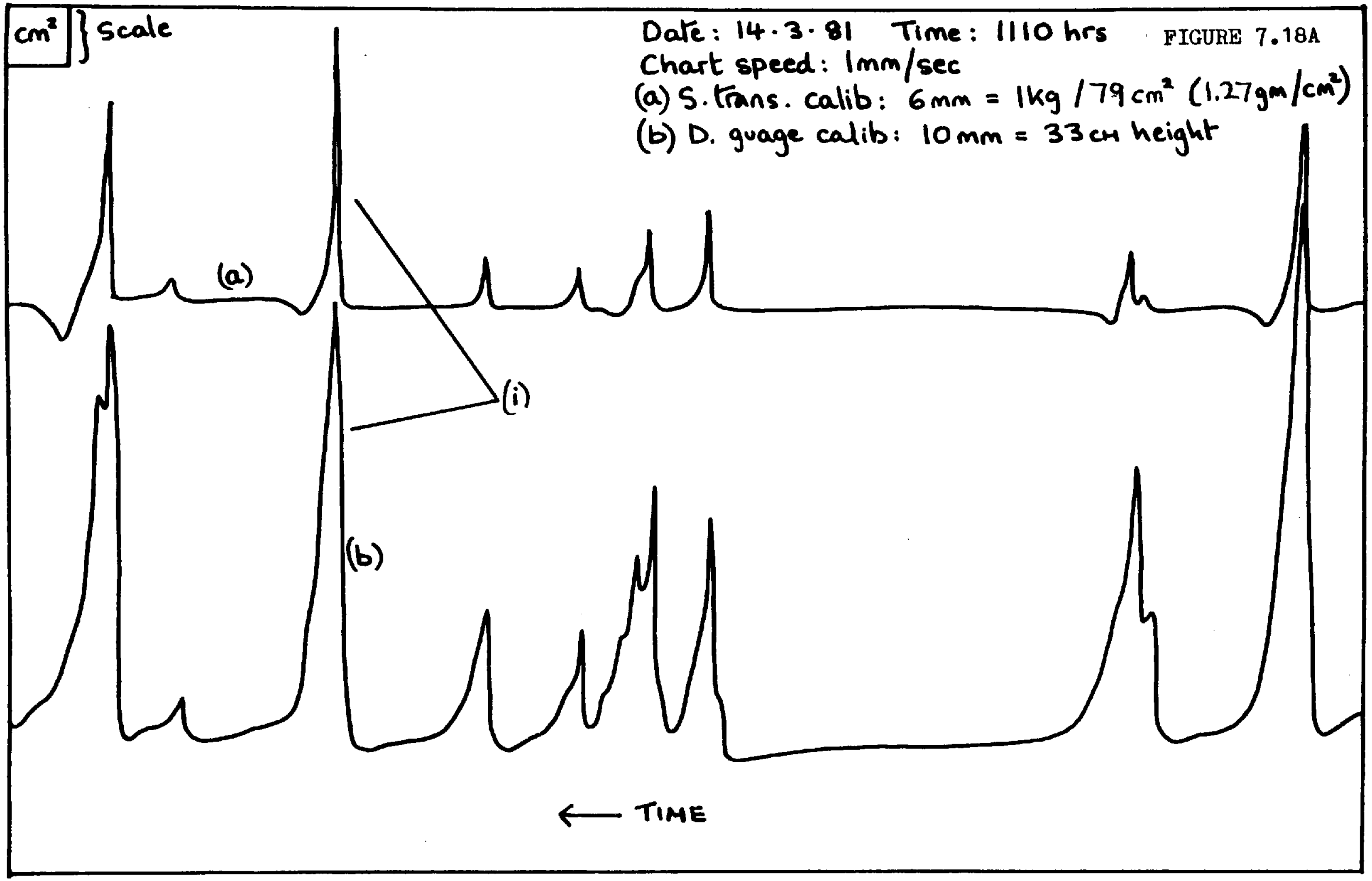

cm²
Scale
Date: 27.2.81 Time: 1110 hrs
Chart speed : 1 mm/sec
S. Transducer calib : 4 mm = 1kg/79 cm²
← TIME
FIGURE 7.17C

FIGURE 7.18A


cm²
Scale
Date: 14·3·81 Time: 1110 hrs
Chart speed: 1mm/sec
(a) S. trans. calib: 6mm = 1kg / 79 cm² (1.27gm/cm²)
(b) D. guage calib: 10mm = 33cm height
(a)
(b)
(i)
← TIME

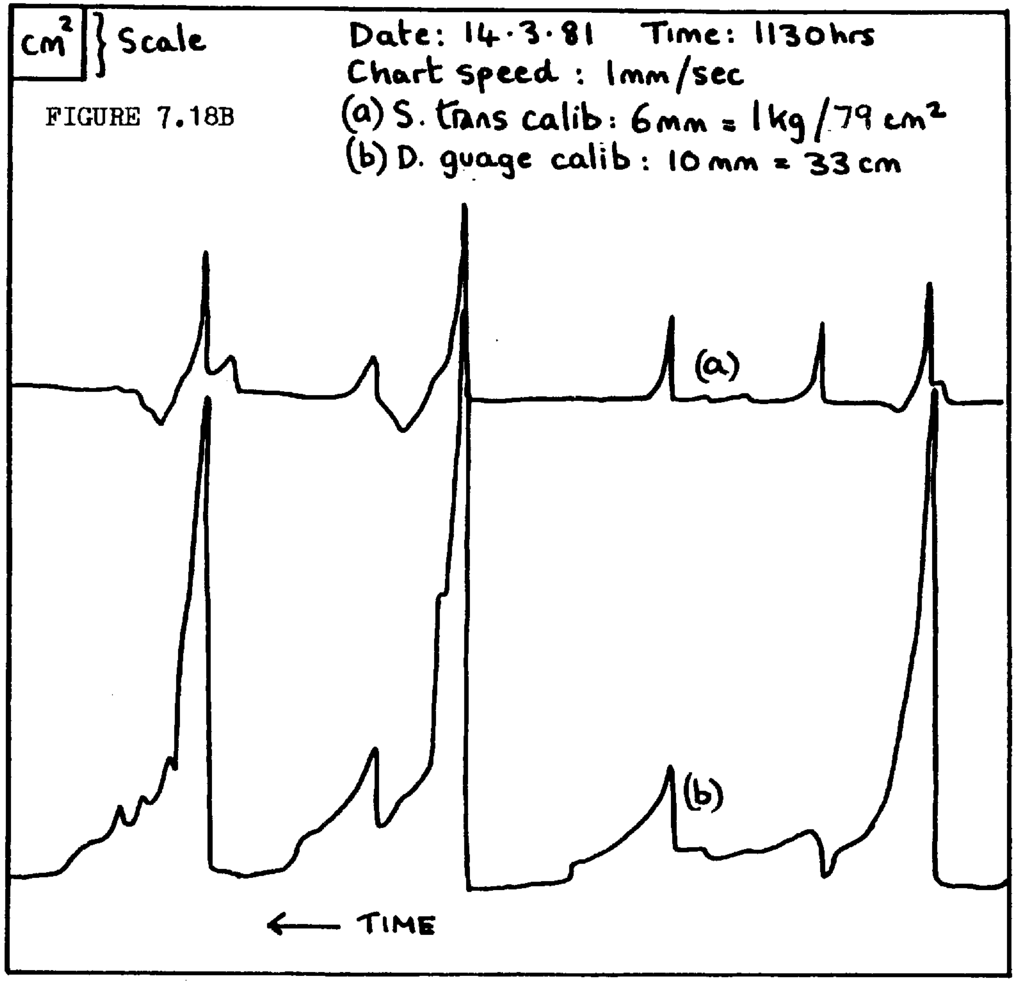

cm² } Scale
Date: 14·3·81 Time: 1130hrs
Chart speed : 1mm/sec
(a) S. trans calib: 6mm = 1kg/79 cm²
(b) D. guage calib: 10mm = 33cm
(a)
(b)
← TIME

FIGURE 7.18B

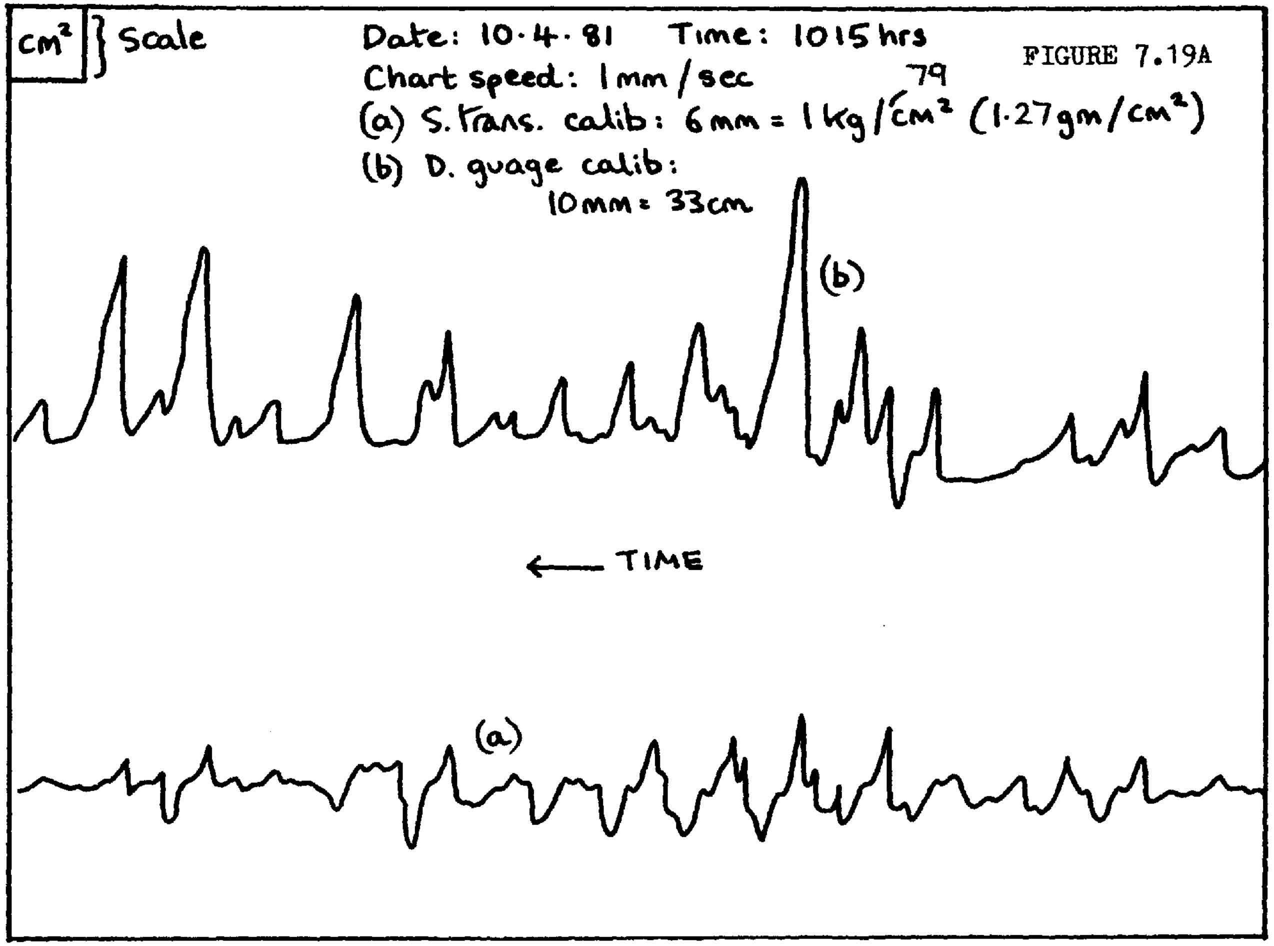
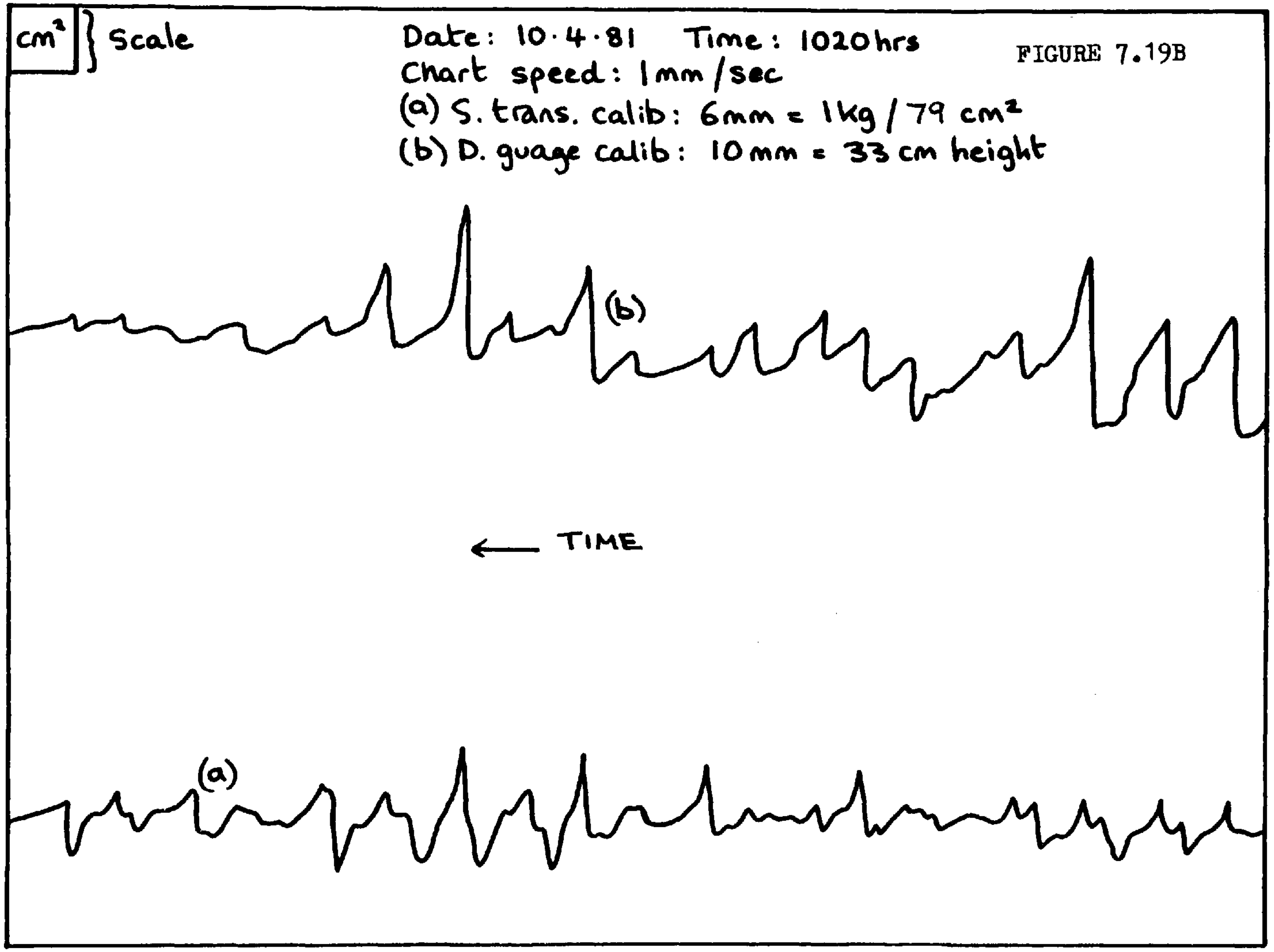

cm² } Scale
Date: 10·4·81 Time: 1015 hrs
Chart speed: 1 mm/sec
(a) S. Trans. calib: 6 mm = 1 kg/cm² (1·27 gm/cm²) 79
(b) D. guage calib:
10 mm = 33 cm
(b)
← TIME
(a)

FIGURE 7.19A

FIGURE 7.19B


cm²
Scale
Date: 10·4·81 Time: 1020hrs
Chart speed: 1mm/sec
(a) S. trans. calib: 6mm = 1kg/79 cm²
(b) D. guage calib: 10mm = 33 cm height
(b)
← TIME
(a)

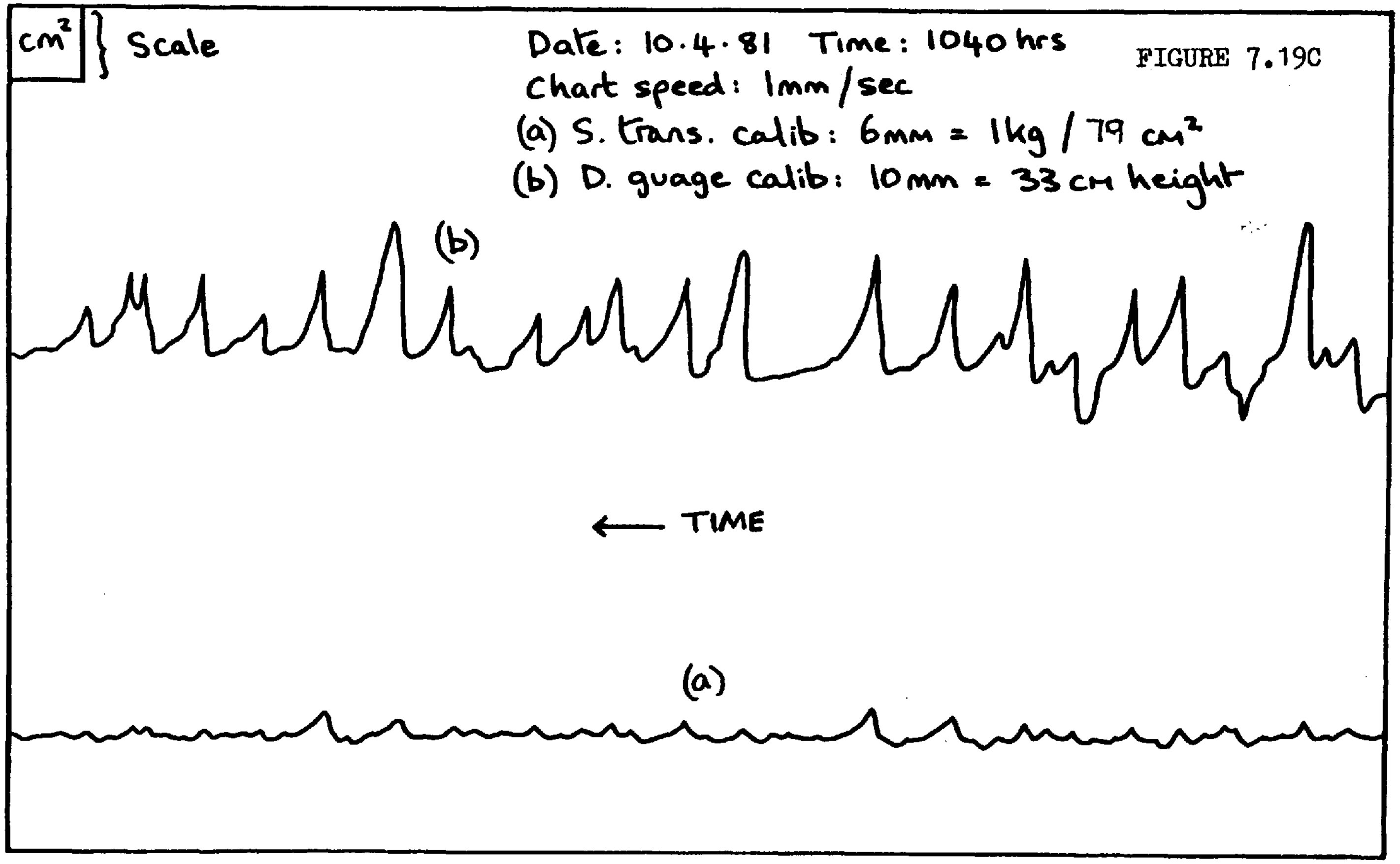
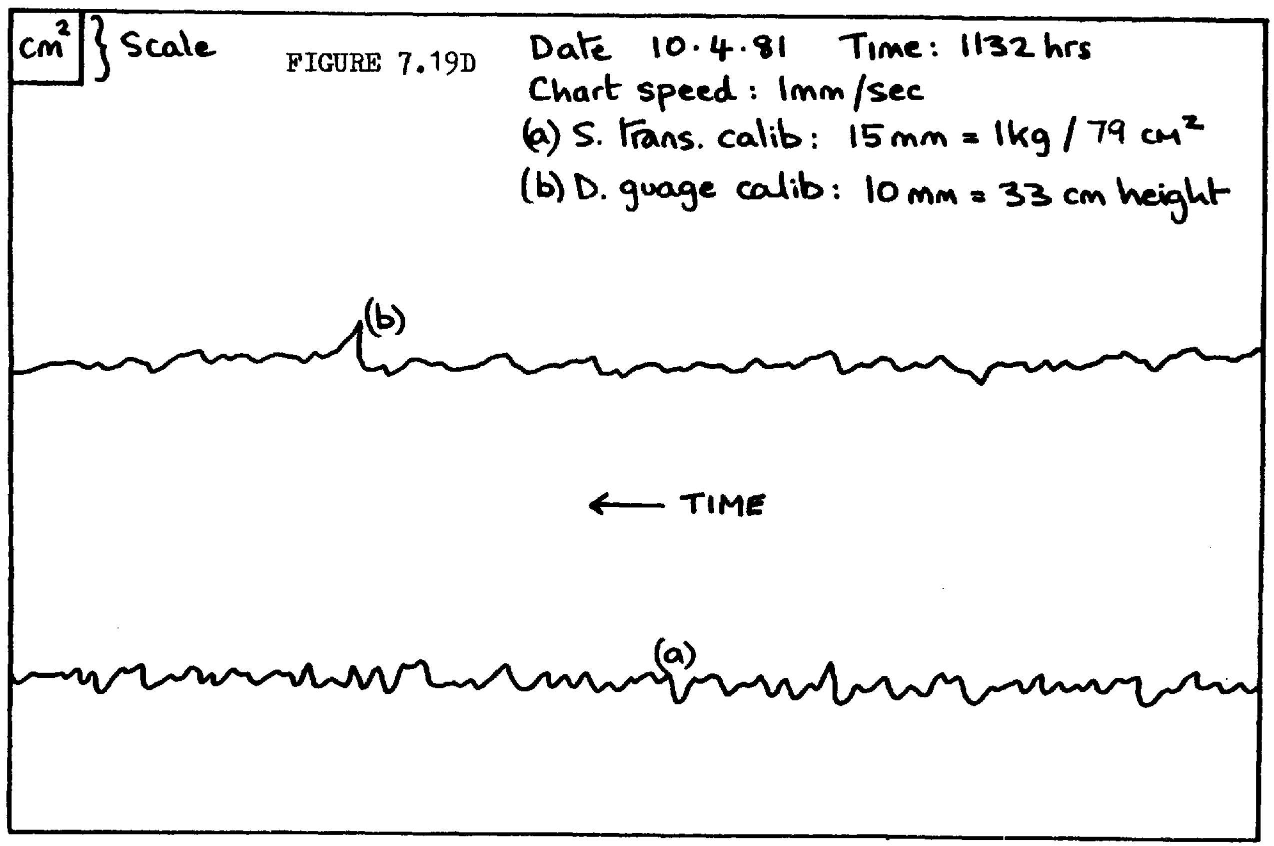

cm²
Scale
Date: 10·4·81 Time: 1040 hrs
Chart speed: 1mm/sec
(a) S. trans. calib: 6mm = 1kg / 79 cm²
(b) D. guage calib: 10mm = 33 cm height
(b)
← TIME
(a)

FIGURE 7.19C


cm²
Scale
FIGURE 7.19D
Date 10·4·81 Time: 1132 hrs
Chart speed: 1mm/sec
(a) S. Trans. calib: 15 mm = 1kg / 79 cm²
(b) D. guage calib: 10 mm = 33 cm height
(b)
← TIME
(a)

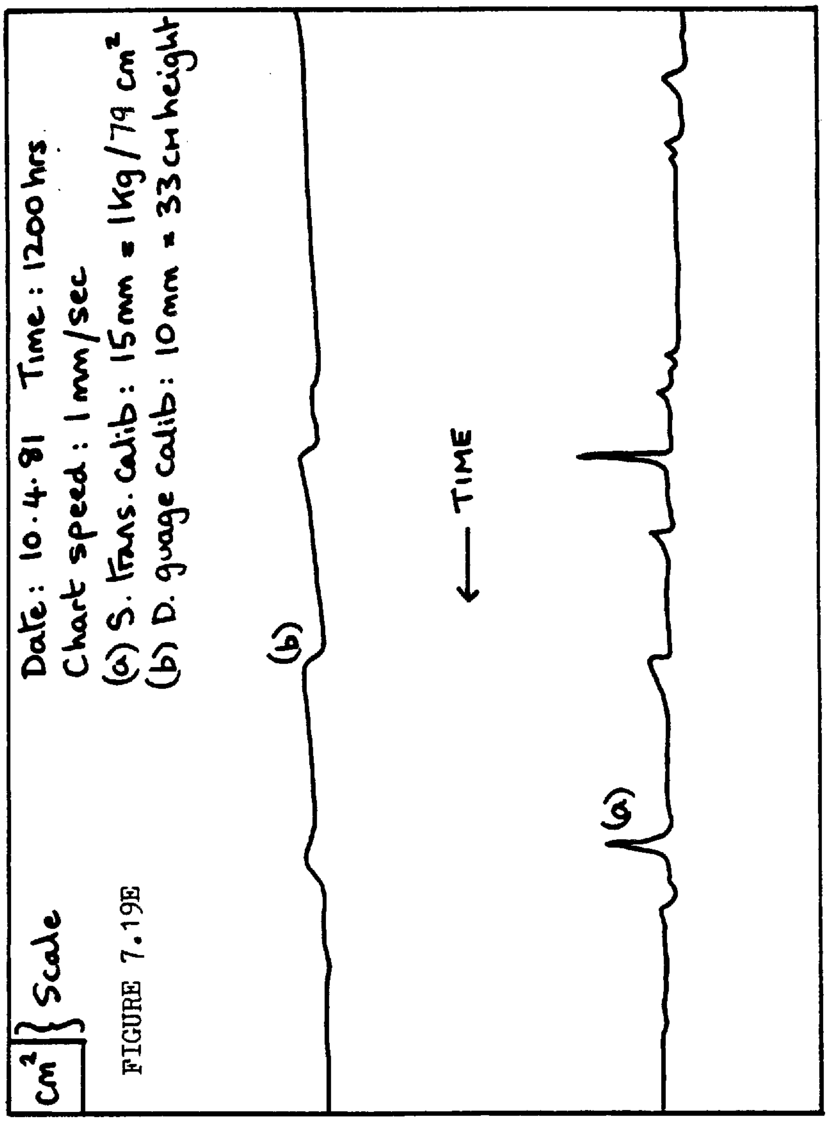

cm² } Scale
Date: 10.4.81 Time: 1200 hrs.
Chart speed: 1 mm/sec
(a) S. Trans. calib: 15mm = 1kg/79 cm²
(b) D. guage calib: 10mm = 33 cm height
(b)
(a)
← TIME

FIGURE 7.19E

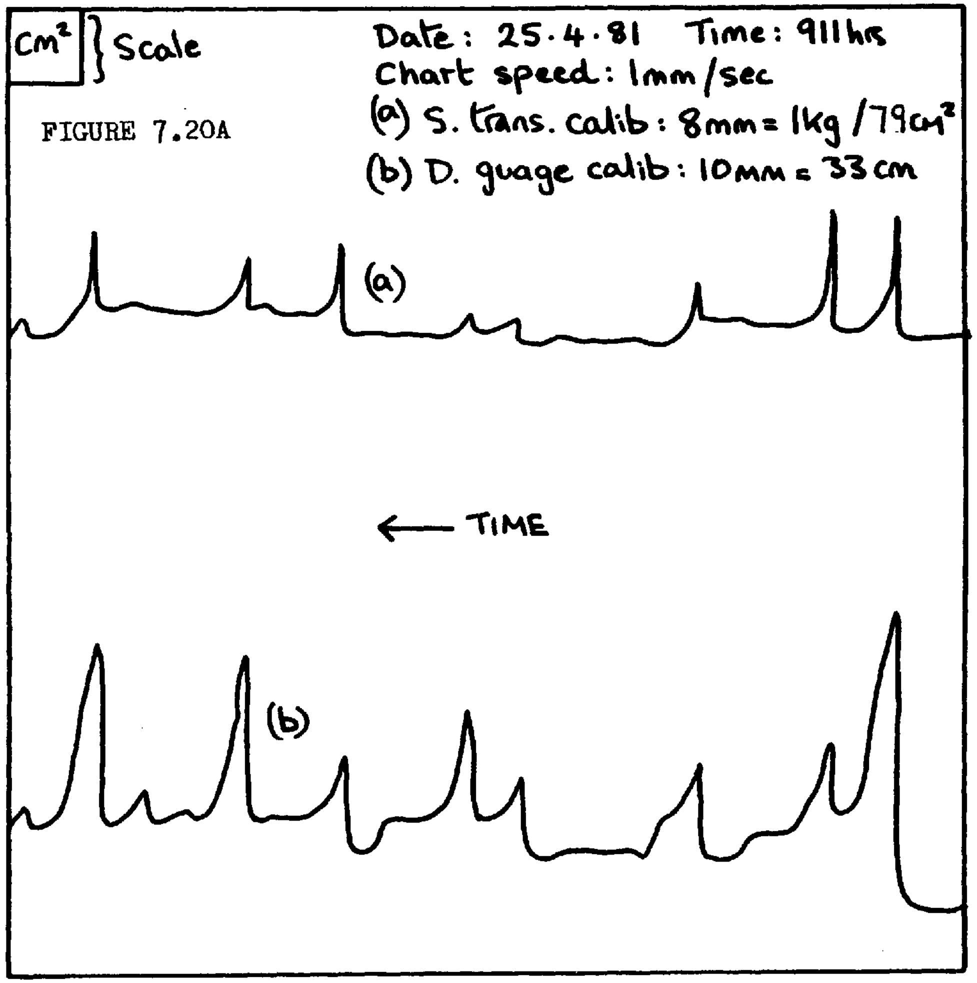

cm²
Scale
Date: 25·4·81 Time: 911hrs
Chart speed: 1mm/sec
(a) S. trans. calib: 8mm = 1kg/79cm²
(b) D. guage calib: 10mm = 33cm
(a)
← TIME
(b)

FIGURE 7.20A

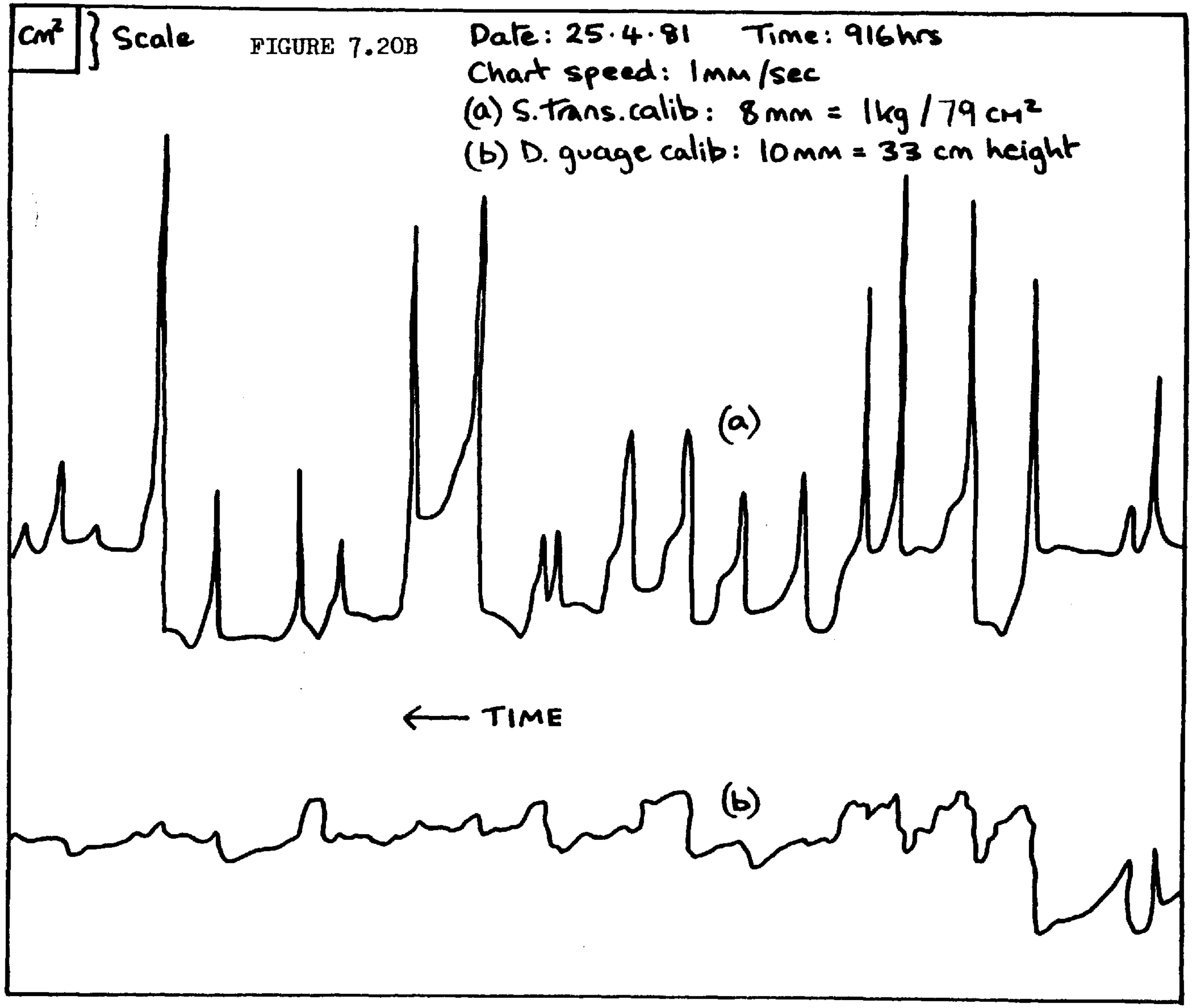
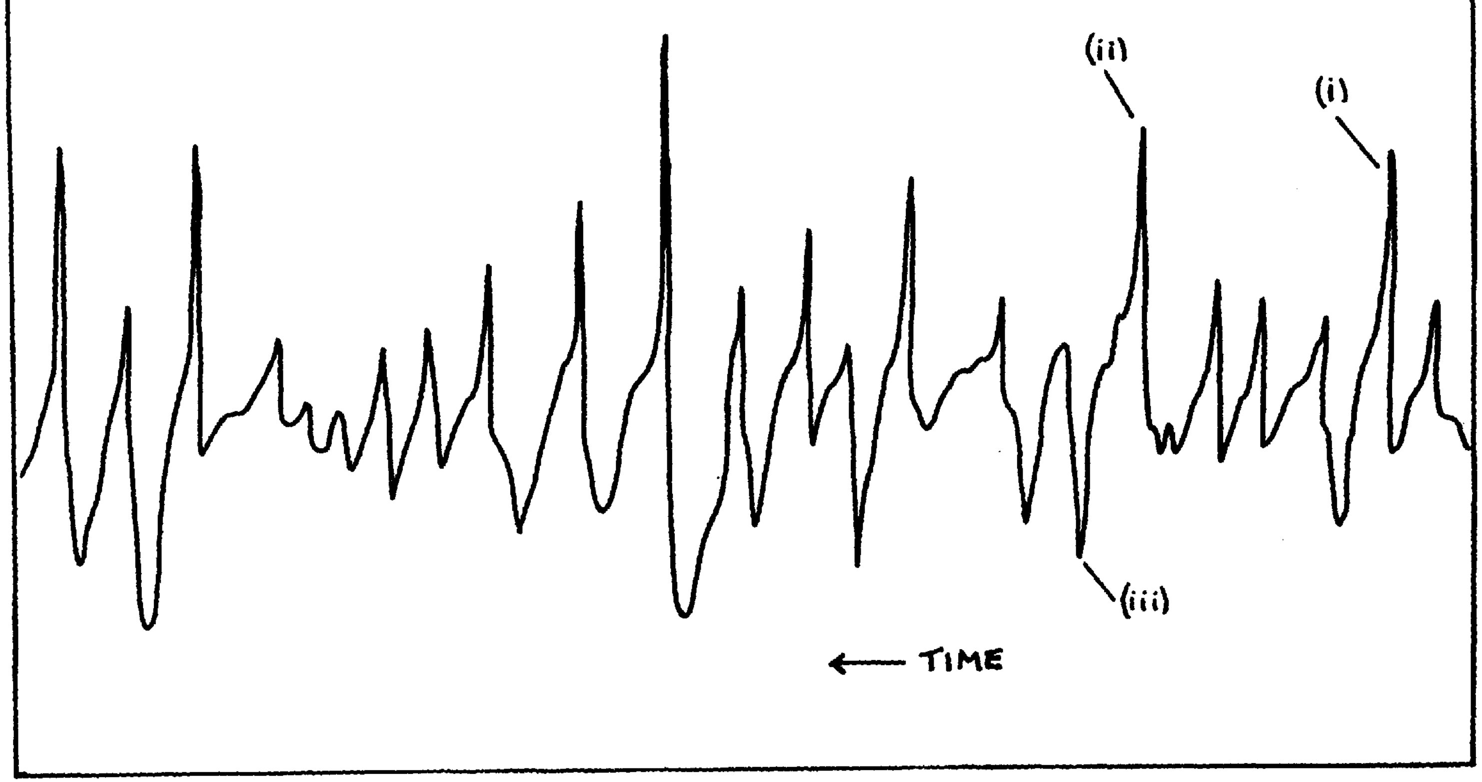

cm²
Scale
Date: 25·4·81 Time: 916hrs
Chart speed: 1mm/sec
(a) S.trans.calib: 8mm = 1kg/79 cm²
(b) D. guage calib: 10mm = 33 cm height
(a)
← TIME
(b)

FIGURE 7.20B

cm² } Scale

FIGURE 7.20C

Date : 25·4·81 Time : 955hrs
Chart speed : 1mm/Sec
Swash transducer calibration : 8mm = 1kg/79 cm²



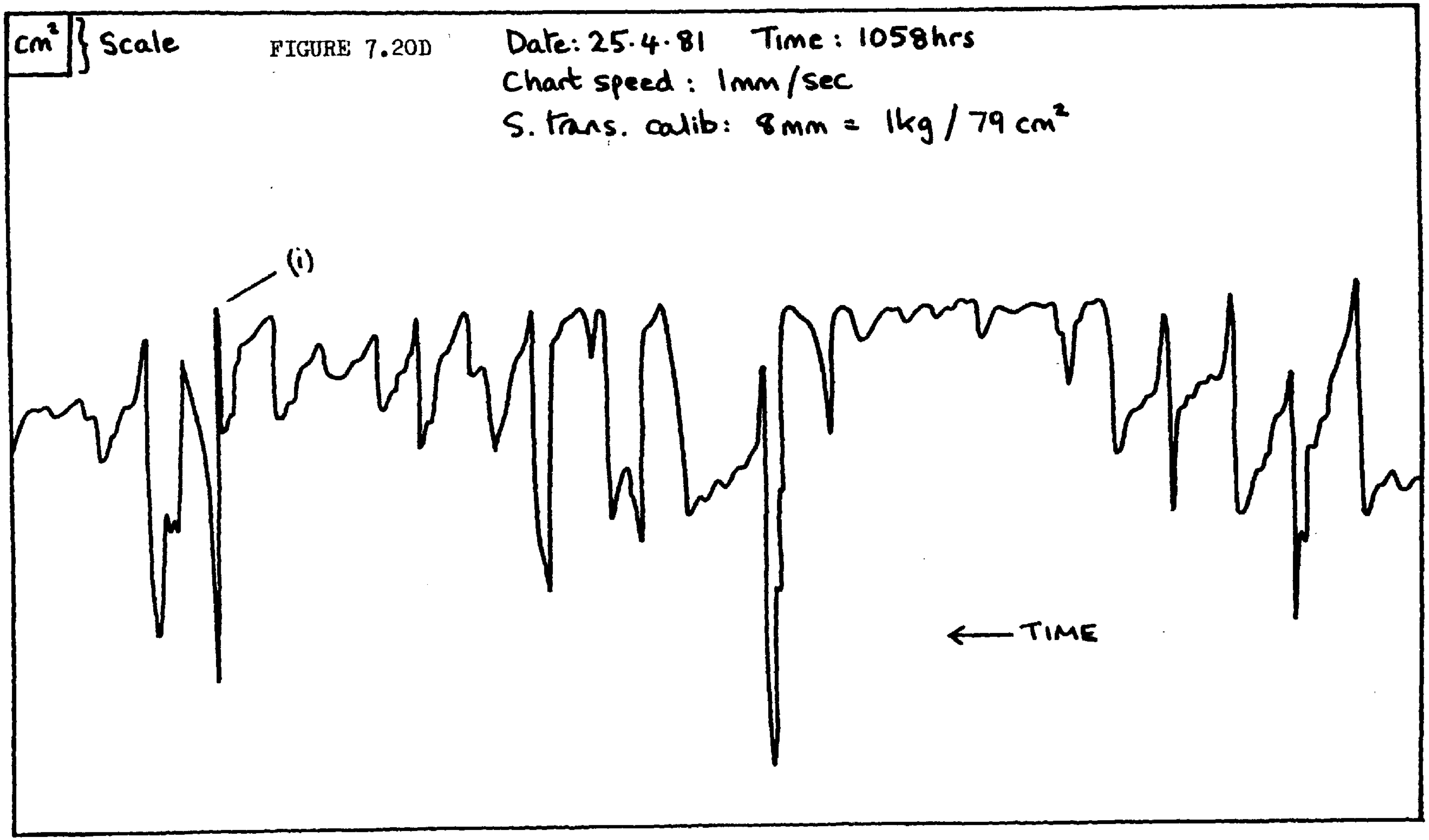

cm² } Scale
Date: 25·4·81 Time: 1058hrs
Chart speed: 1mm/sec
S. trans. calib: 8mm = 1kg / 79 cm²
(i)
TIME

FIGURE 7.20D

FIGURE 7.21A

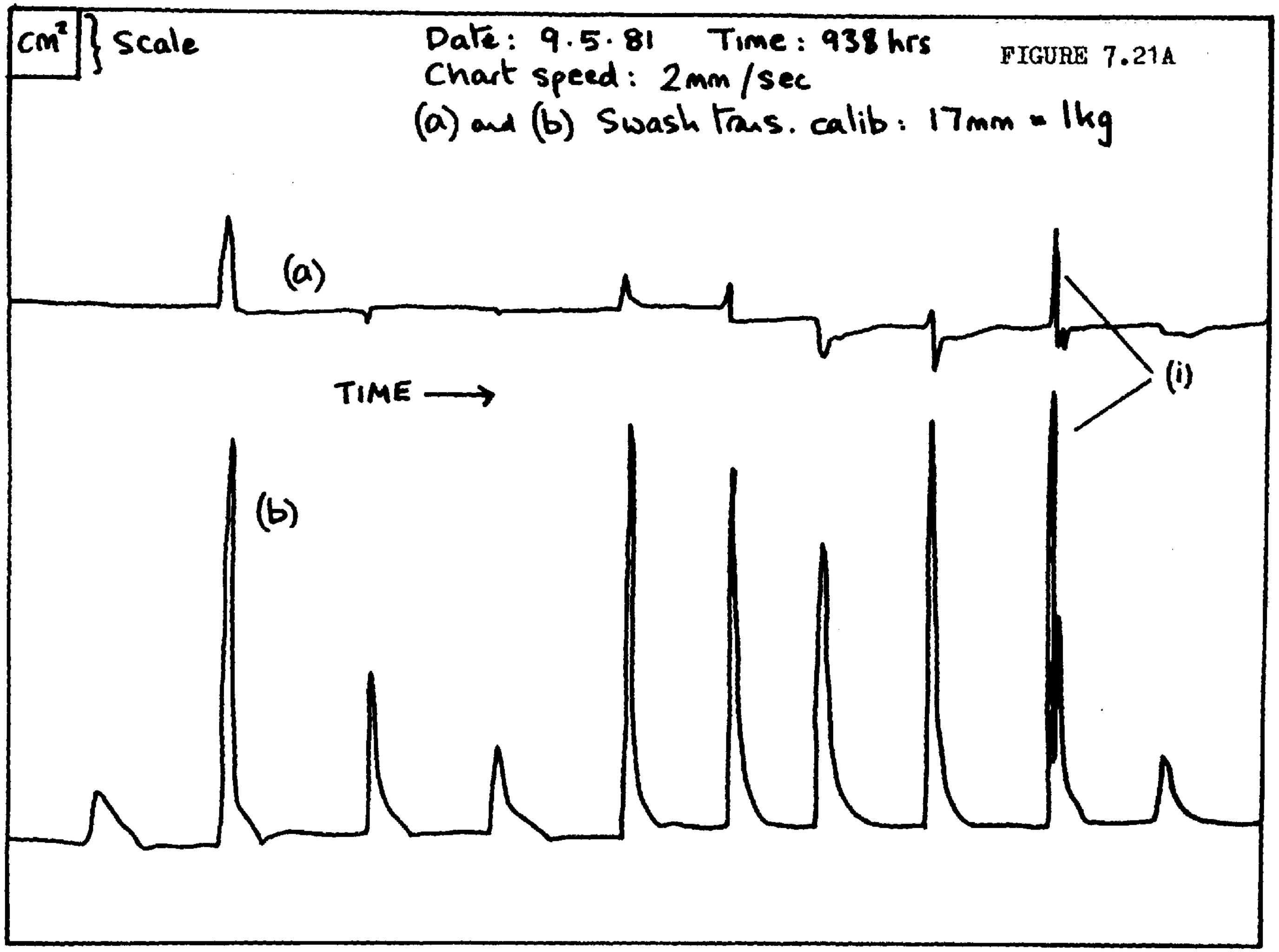

cm²
Scale
Date: 9.5.81 Time: 938 hrs
Chart speed: 2mm/sec
(a) and (b) Swash Trans. calib: 17mm = 1kg
(a)
TIME ⟶
(b)
(i)

FIGURE 7.21B

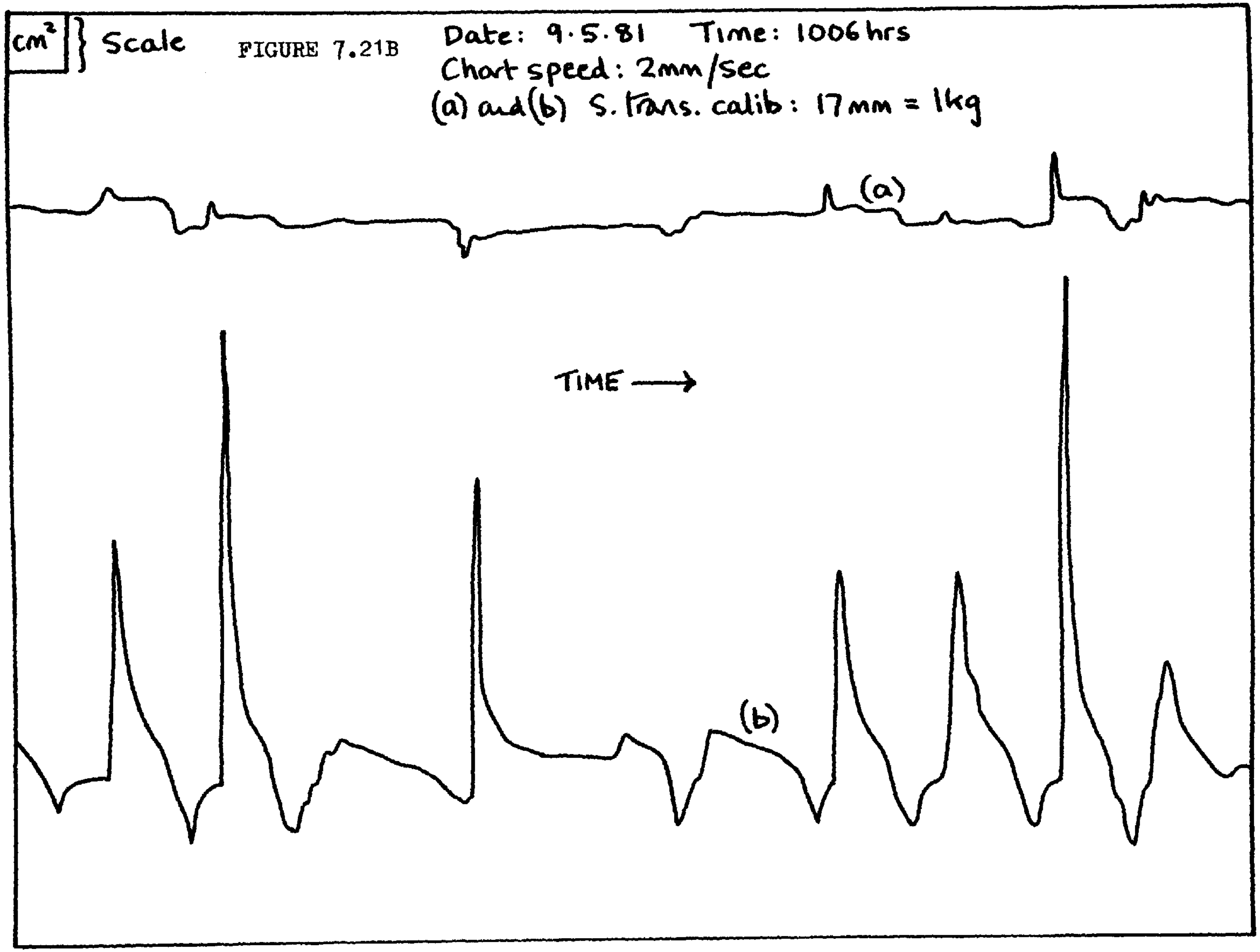
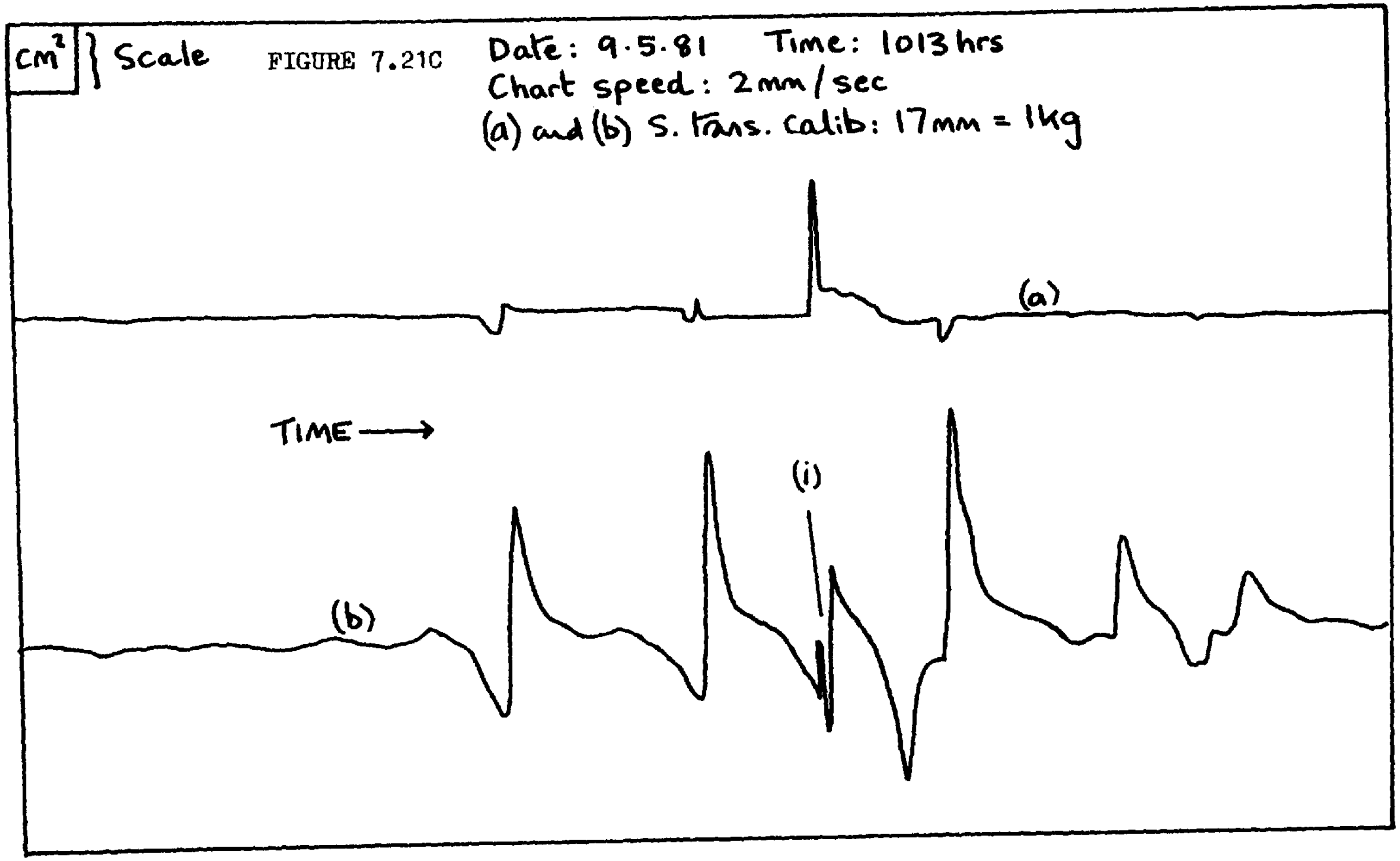

cm²
Scale
Date: 9.5.81 Time: 1006 hrs
Chart speed: 2mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME ⟶
(b)

FIGURE 7.21C


cm²
Scale
Date: 9.5.81 Time: 1013 hrs
Chart speed: 2mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME ⟶
(i)
(b)

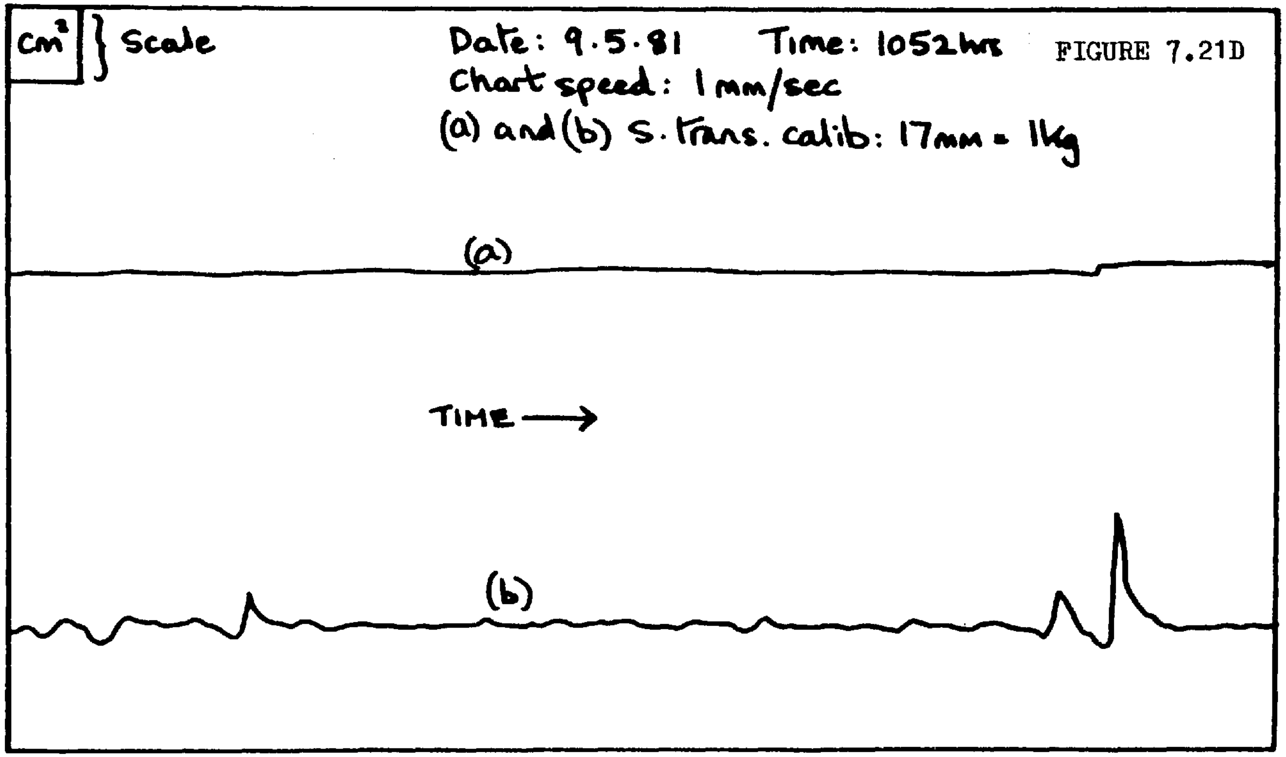

cm²
Scale
Date: 9.5.81
Time: 1052hrs
Chart speed: 1mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME
(b)

FIGURE 7.21D

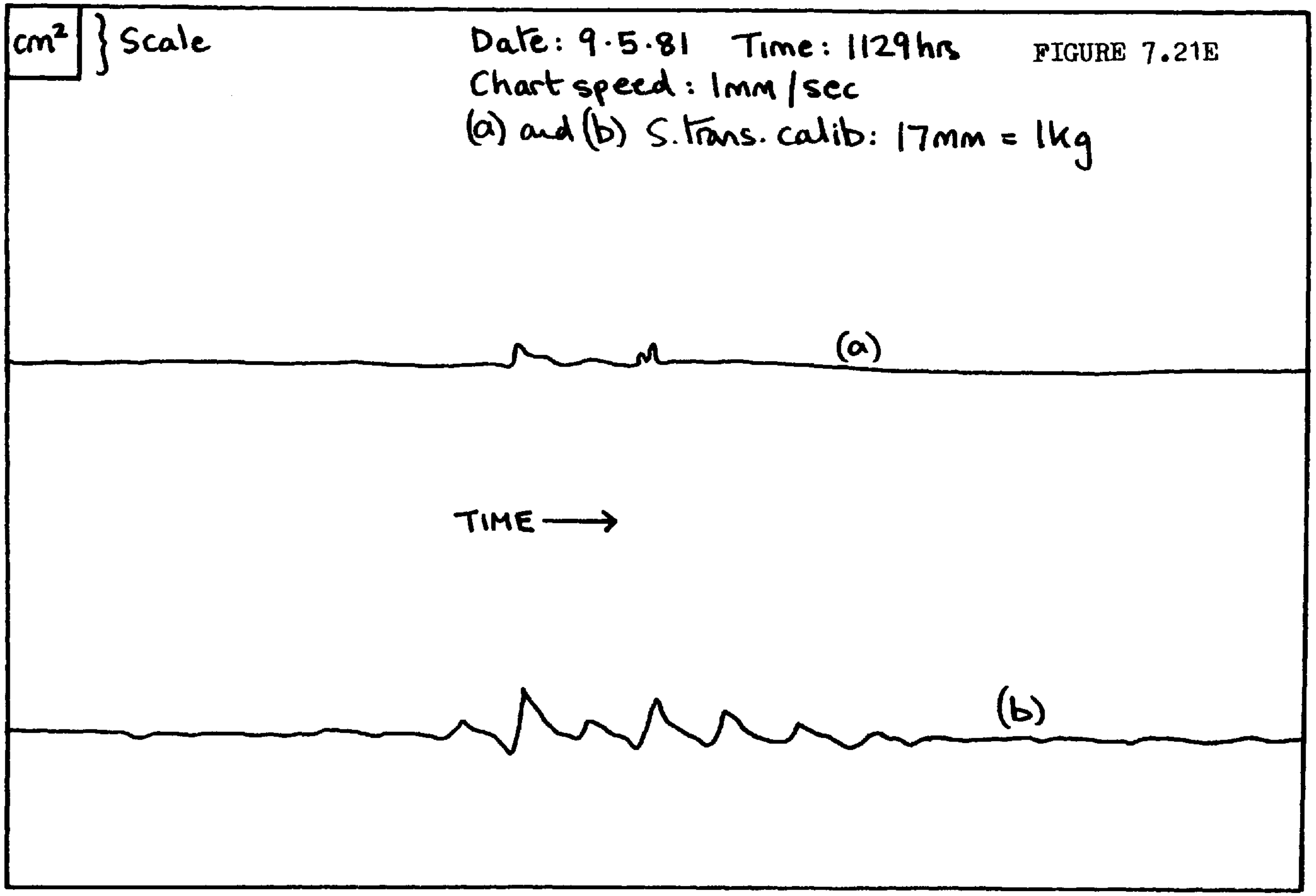

cm²
} Scale
Date: 9·5·81 Time: 1129hrs
Chart speed: 1mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME ⟶
(b)

FIGURE 7.21E

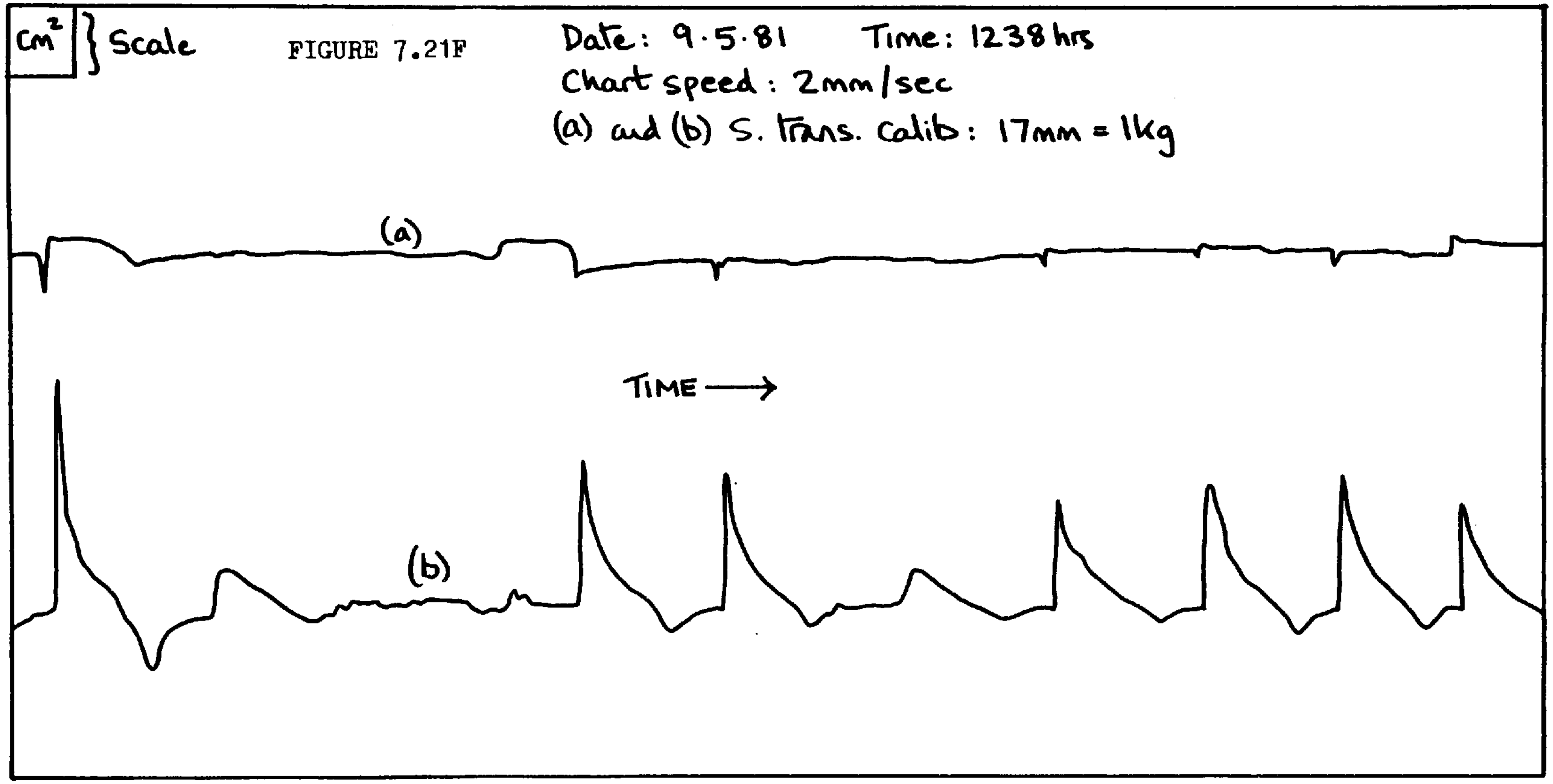

cm²
Scale
Date: 9·5·81 Time: 1238 hrs
Chart speed: 2mm/sec
(a) and (b) S. Trans. Calib: 17mm = 1kg
(a)
TIME ⟶
(b)

FIGURE 7.21F

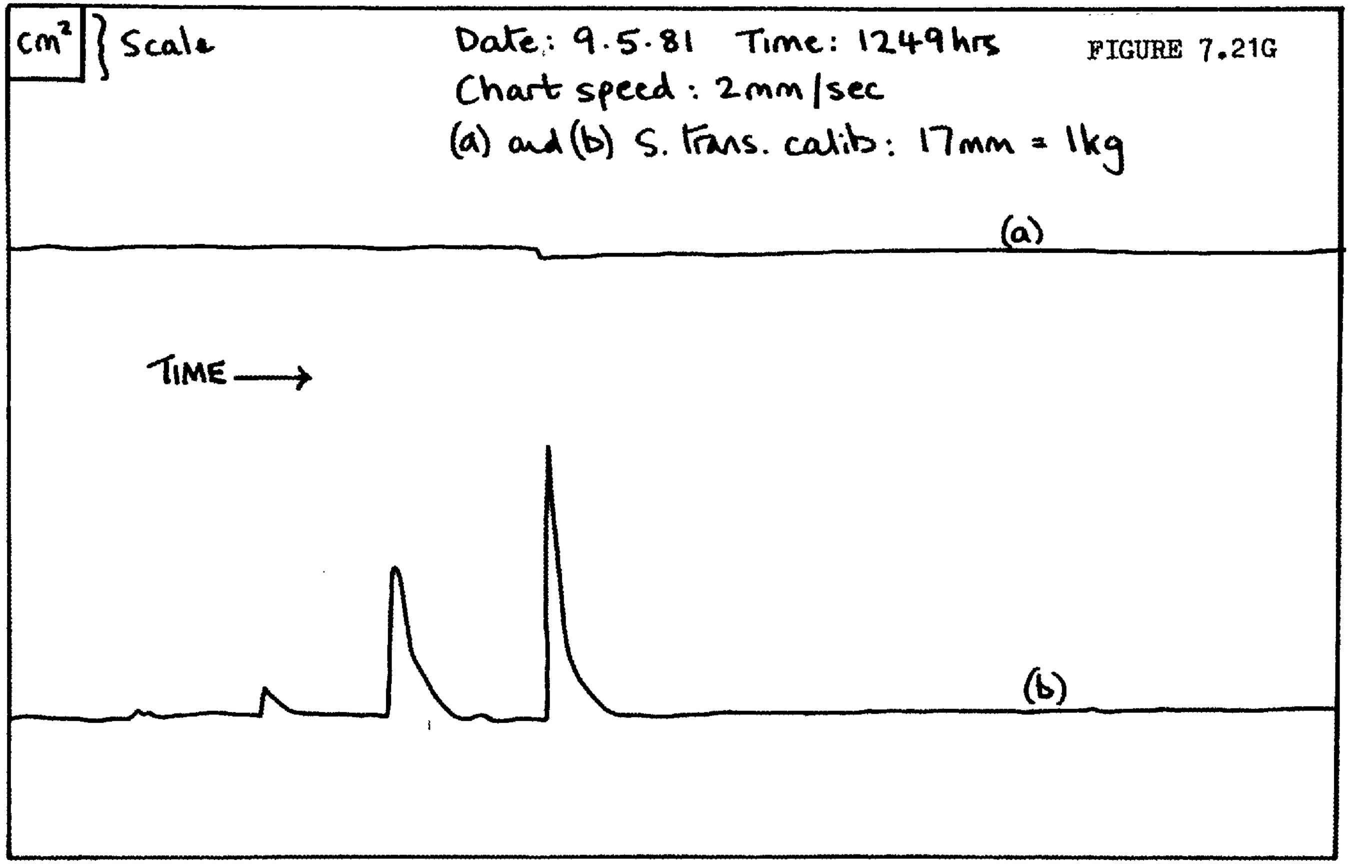

cm²
Scale
Date: 9.5.81 Time: 1249 hrs
Chart speed: 2mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME
(b)

FIGURE 7.21G

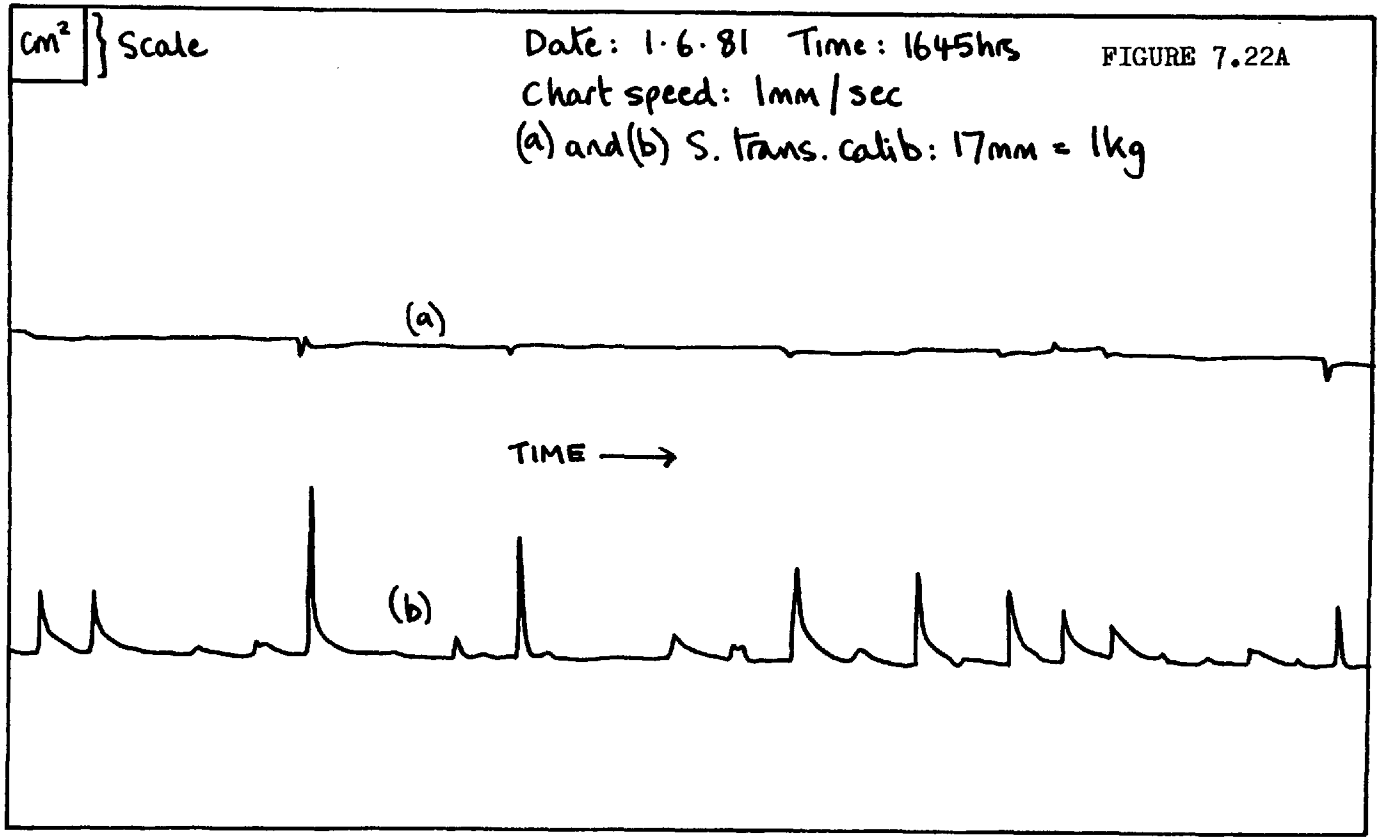
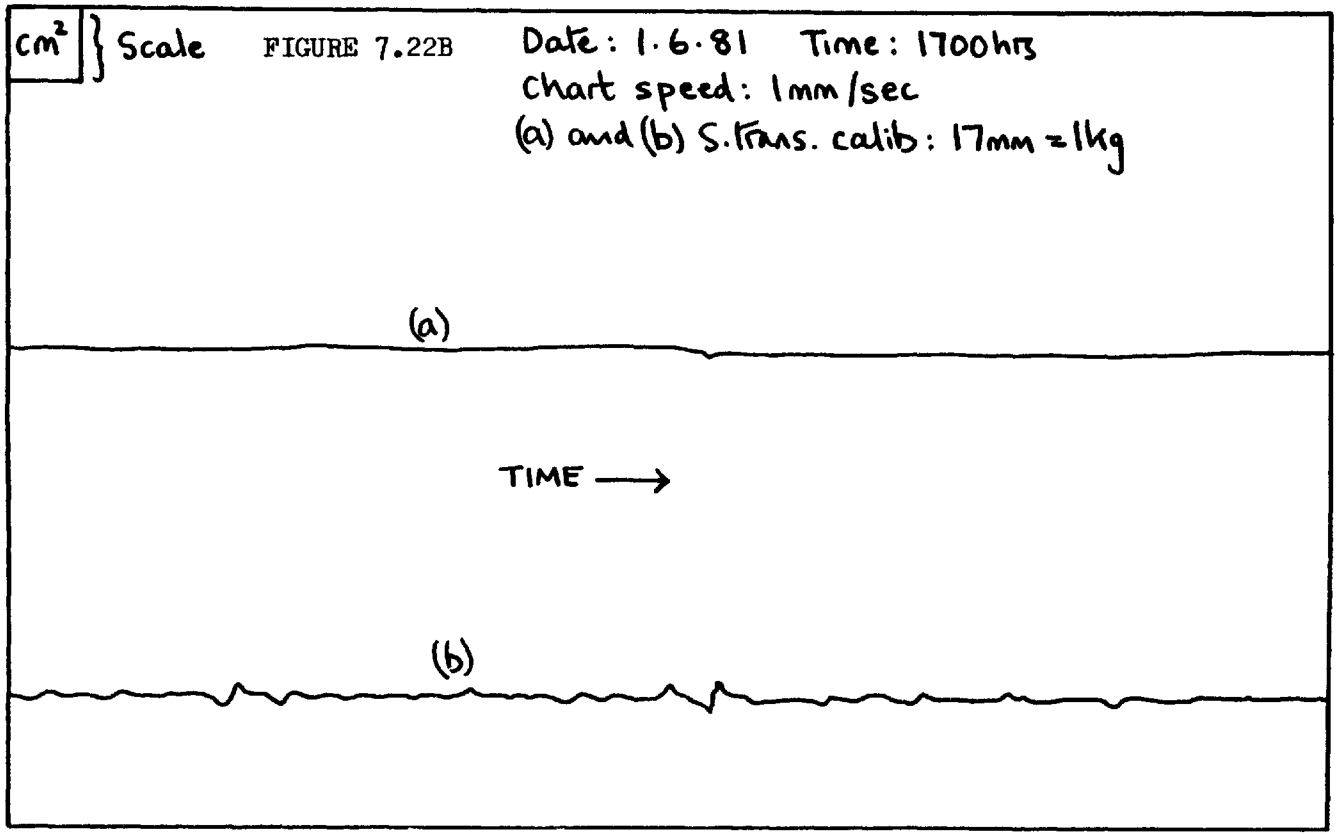

cm²
Scale
Date: 1·6·81 Time: 1645hrs
Chart speed: 1mm/sec
(a) and (b) S. trans. calib: 17mm = 1kg
(a)
TIME
(b)

FIGURE 7.22A

FIGURE 7.22B



cm²
Scale
Date: 1.6.81 Time: 1700hrs
Chart speed: 1mm/sec
(a) and (b) S.Trans. calib: 17mm = 1kg
(a)
TIME
(b)

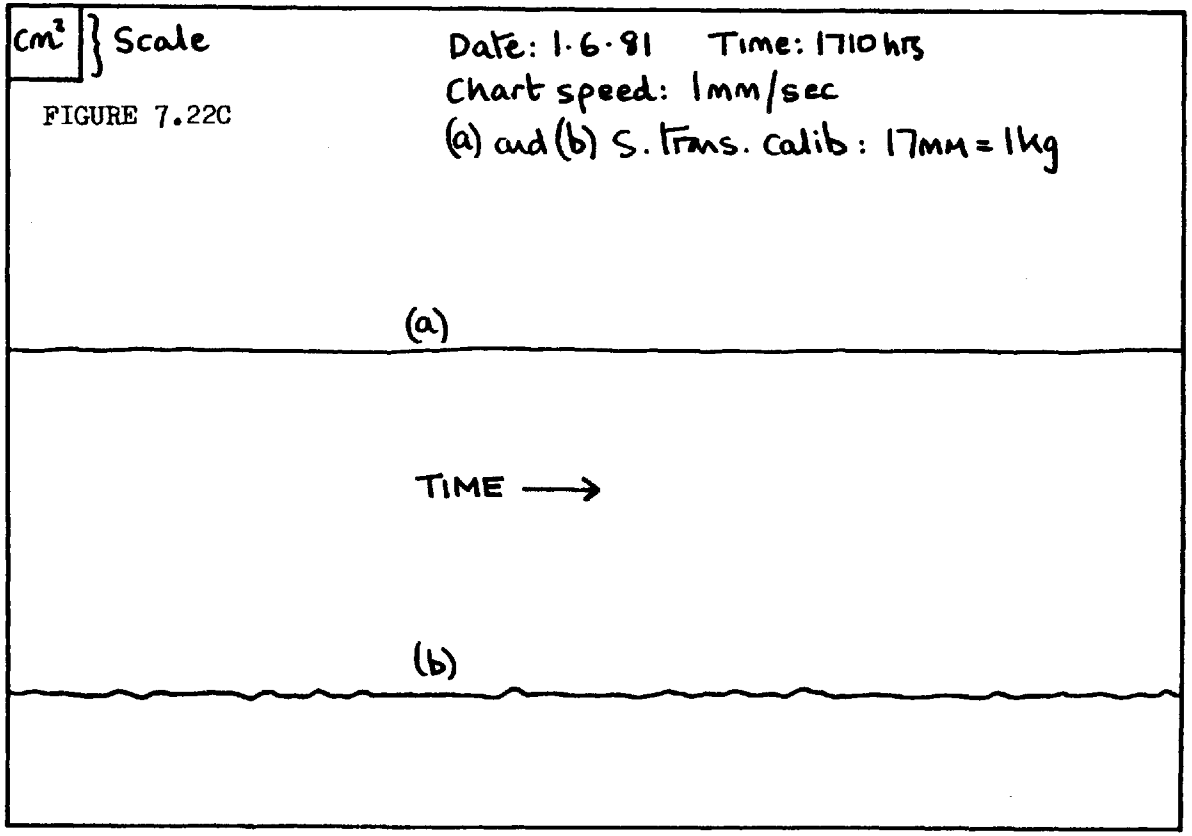
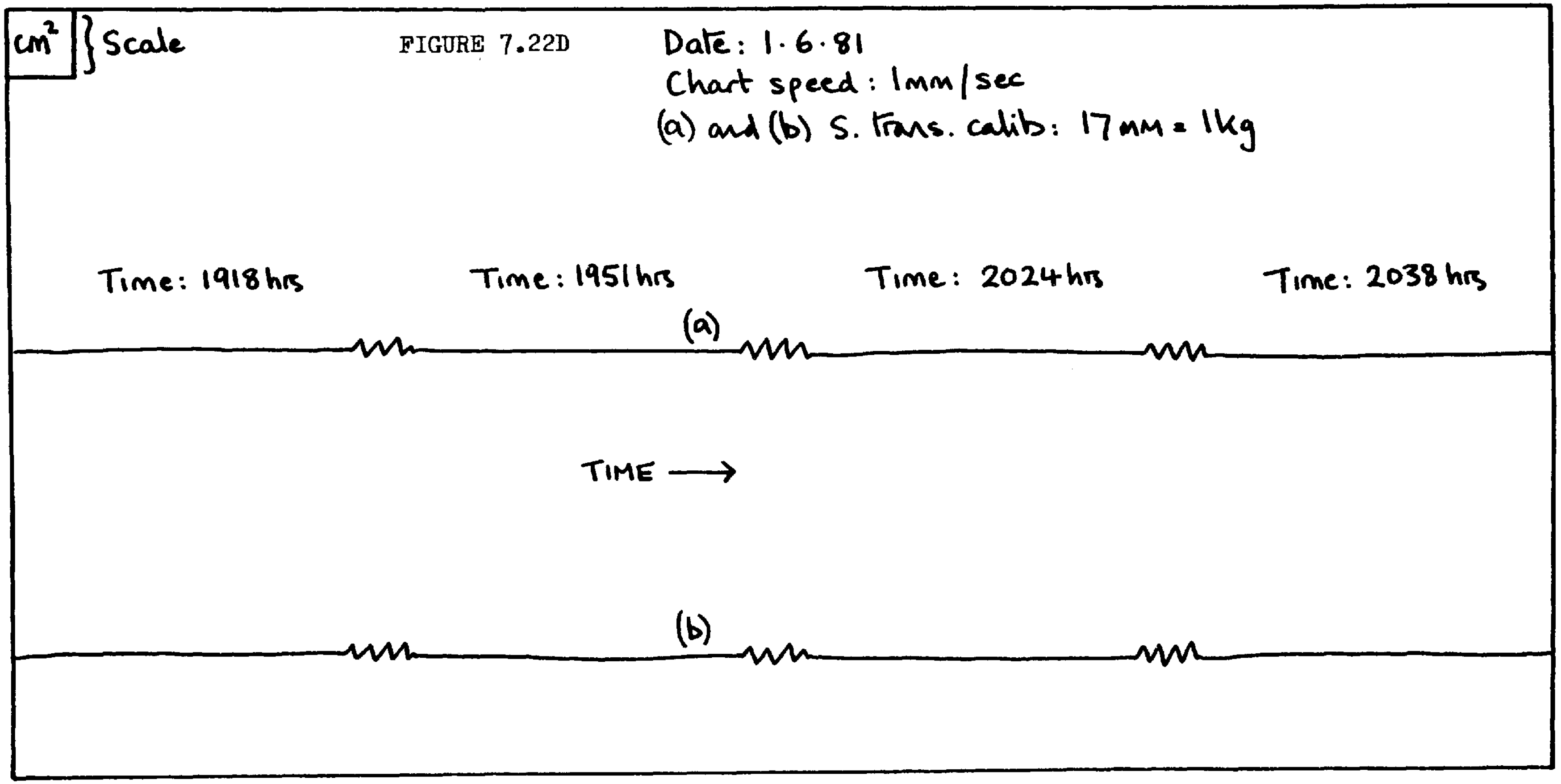

cm²
Scale
Date: 1·6·81 Time: 1710 hrs
Chart speed: 1mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
(a)
TIME
(b)

FIGURE 7.22C

FIGURE 7.22D



cm²
Scale
Date: 1·6·81
Chart speed: 1mm/sec
(a) and (b) S. Trans. calib: 17mm = 1kg
Time: 1918hrs
Time: 1951hrs
Time: 2024hrs
Time: 2038hrs
(a)
TIME ⟶
(b)

TABLE 1.1 THE WENTWORTH SCALE

Type	Units	Millimetres
Boulder	more than -8.0	more than 256
Cobble	-8.0 to -6.0	256 to 64
Pebble	-6.0 to -2.0	64 to 4
Granule	-2.0 to -1.0	4 to 2
Very coarse sand	-1.0 to 0	2 to 1
Coarse sand	0 to 1.0	1 to 0.5
Medium sand	1.0 to 2.0	0.5 to 0.25
Fine sand	2.0 to 3.0	0.25 to 0.125
Very fine sand	3.0 to 4.0	0.125 to 0.0625
Coarse silt	4.0 to 5.0	0.0625 to 0.0312
Medium silt	5.0 to 6.0	0.0312 to 0.0156
Fine silt	6.0 to 7.0	0.0156 to 0.0078
Very fine silt	7.0 to 8.0	0.0078 to 0.0039
Coarse clay	8.0 to 9.0	0.0039 to 0.00195
Medium clay	9.0 to 10.0	0.00195 to 0.00098

TABLE 1.2 Taken from Orford (1978), Table 1.1

Facies assemblages required to develop a facies model of beach gravel sedimentation

Wave Conditions	Sediment type	
	Gravel dominant	Mixed sand and gravel
Extreme event	?*	?*
Storm	Llanrhystyd (Orford 1975)	modified Llanrhystyd[1]
Post-storm	Sker (Bluck 1967)	Newton (Bluck 1967)
Fairweather	?	

* Equated with Bluck's view on sweeping up of all sediment and formation of initial gravel bar before Sker and Newton assemblages are derived.

1 Equated with the upper beach structure of the Llanrhystyd gravel dominant storm sequence but is foreshortened due to lack of outer cobble frame elements or covered by inter-tidal sand.

? Facies assemblage to be identified.

TABLE 3.1 Taken from Dobkins and Folk (1970), Table 5

TABLE 5.—*Settling velocities compared with sphericity values, for bodies of uniform density. Observe progressive monotonic change from left to right for all except the Wadell measure which least reflects the hydraulic behavior.*

			Perfect Sphere 10:10:10	Perfect Rod 10:4:4	Perfect Blade* 10:7:4	Perfect Disc 10:10:4
Wentworth	1922	$(L+I)/2S$	1.00	1.75	2.1	2.5
Wadell	1934	$\sqrt[3]{IS/L^2}$	1.00	.54	.66	.74
Corey	1949	$S/\sqrt{LI}$	1.00	.63	.48	.40
Folk	1955	$\sqrt[3]{S^2/LI}$	1.00	.74	.61	.54
Settling velocity assuming equal volume			1.00	.70–.76	.60–.64	.56–.61

* Blade with I exactly halfway between L and S.

TABLE 4.1 TRACER SURVEY DATES AND OTHER DETAILS

TRACER SURVEY DATES	SURVEY NUMBER	NUMBERS OF TRACERS	PERCENT OF 2000	SPRING TIDES SINCE INJECTION
17.03.78	1	583	29.2	1
04.04.78	2	125	6.3	2
21.04.78	3	127	6.4	3
27.04.78	4	146	7.3	4
18.05.78	5	123	6.2	5
05.06.78	6	122	6.2	6
16.06.78	7	121	6.1	7
14.07.78	8	189	9.5	9
28.11.78	9	99	5.0	18
03.01.79	10	64	3.2	21
20.02.79	11	63	3.2	24
23.04.79	12	48	2.4	28

SURVEY	ANALYSIS BY ZONES				ANALYSIS BY SECTORS			
	C-AXIS	ROUNDNESS	SPHERICITY	O-P INDEX	C-AXIS	ROUNDNESS	SPHERICITY	O-P INDEX
1	●		•					
2	●		•					
3	●		•	●	●		•	●
4	●		●	●	●			
5					●			•
6					●			
7			•		●			●
8					●			●
9	●			●	•			
10					•			
11					●			
12	●		•					●

TABLE 4.2 <u>RESULTS OF ANALYSIS OF VARIANCE USING THE F-LIKE TEST</u>

(A large dot signifies a rejection of H_o at $p \leq 0.01$,
a small dot signifies a rejection of H_o at $p \leq 0.05$)

TABLE 4.3 RESULTS OF STEPPED MULTI-REGRESSION ROUTINE

For each survey and each type of analysis the particle parameter (if any) which produced a significant result at $p \leq 0.01$ is indicated)

SURVEY	ALONG-BEACH ANALYSIS	DOWN-BEACH ANALYSIS
1	A-AXIS	B-AXIS
2		C-AXIS
3	C-AXIS	C-AXIS
4	C-AXIS	C-AXIS
5	C-AXIS	C-AXIS
6	C-AXIS	C-AXIS
7	C-AXIS	C-AXIS
8	O-P IN	
9	B-AXIS	A-AXIS
10	B-AXIS	
11	A-AXIS	
12		C-AXIS

TABLE 4.4 - 'RETURNED' AGAINST ORIGINAL POPULATION

SURVEY NUMBER:	TRACER C-AXIS	SURFACE ROUNDNESS	PARTICLE SPHERICITY	OBLATE-PROLATE INDEX
1	●	●	●	●
2	●	●	●	
3	●	●		
4	●	●		•
5	●	•	●	•
6	●	•	●	•
7	●	•		•
8	●	●	●	
9	●	●		
10	●	●		
11	●		●	•
12	●	●		●

KEY

● P = 0.01

• P = 0.05

TABLE 4.5 - PERCENTAGE REJECTION OF Ho IN TRACER/'HOST' TESTS

(Figures represent the percentage of tests which recorded a significant difference between tracers and their 'host' populations, at $p \leqslant 0.05$)

TRACER/'HOST' TEST DATES:	TRACER A-AXIS	TRACER B-AXIS	TRACER C-AXIS	SURFACE ROUNDNESS	PARTICLE SPHERICITY	OBLATE-PROLATE INDEX	MEAN:	SAMPLE NUMBER:
13/7/78	58	58	42	67	67	67	60	12
23/8/78	100	57	71	71	43	71	69	7
9/12/78	62	62	62	85	62	69	67	13
23/2/79	67	73	73	67	40	73	65	15
MEAN:	72	62	62	72	53	70	65	47

TABLE 5.1 LIST OF BEACHES, CROSS-SECTIONS AND TYPES OF EXPERIMENT WHICH GAVE RISE TO THE 402 PROFILES USED IN CHAPTER 5.

BEACH	CROSS-SECTIONS	NUMBER OF SURVEYS	PERIOD BETWEEN SURVEYS	MONITORING PERIOD
GILESTON	1	26	Spring Tide Cycle	10.11.77 – 20.02.79
"	2	26	"	"
"	3	26	"	"
"	4	26	"	"
NASH	1	28	Spring Tide Cycle	14.11.77 – 16.08.79
"	2	28	"	"
"	3	28	"	"
"	4	28	"	"
GILESTON	1	17	24 hours	02.02.80 – 18.02.80
"	2	17	"	"
"	3	17	"	"
"	4	17	"	"
"	5	17	"	"
"	6	17	"	"
NASH	1	14	24 hours	18.03.80 – 01.04.80
"	2	14	"	"
"	3	14	"	"
"	4	14	"	"
"	5	14	"	"
"	6	14	"	"

KEY TO TABLE 5.2 GIVING THE DEFINITIONS TO ABREVIATIONS USED

CODE	DEFINITION
CCNB	Concave, no berm.
CCUB	Concave, upper berm.
CCMB	Concave, mid-berm.
CCLB	Concave, lower berm.
CCCB	Concave, composite berm.
LNB	Linear, no berm.
LUB	Linear, upper berm.
LMB	Linear, mid-berm.
LLB	Linear, lower berm.
LCB	Linear, composite berm.
CCB	Concave, with berm.
LB	Linear, with berm.

TABLE 5.2 THE NUMBER OF PROFILES FALLING INTO EACH OF THE 10 CATEGORIES

BEACH:	INTERVAL:	CCNB	CCUB	CCMB	CCLB	CCCB	LNB	LUB	LMB	LLB	LCB	TOTAL
GILESTON	c. 2 weeks	30	9	45	0	10	1	0	8	1	0	104
NASH	c. 2 weeks	20	27	21	7	13	3	15	1	1	4	112
GILESTON	24 hours	32	20	5	3	6	18	7	3	1	7	102
NASH	24 hours	8	10	3	6	8	19	13	9	8	0	84
TOTAL	----	90	66	74	16	37	41	35	21	11	11	402

TABLE 5.3 LITTORAL CONDITIONS DURING THE MONITORING OF 'TEMPORARY' CROSS-SECTIONS

GILESTON

DAY	DATE	TIME	T_b sec.	H_b cm.	$\alpha°$	Wave Type	Wind k.	Wind Dir
Saturday	02.02.80	13·40	8	60	100	Plunge	15	SW
Sunday	03.02.80	—	—	—	—	—	—	—
Monday	04.02.80	11·50	10	20	100	Plunge	5	E
Tuesday	05.02.80	13·00	9	60	110	Plunge	10	SW
Wednesday	06.02.80	13·00	10	30	110	Plunge	8	NE
Thursday	07.02.80	13·00	12	20	120	Spill	1	E
Friday	08.02.80	13·15	12	40	110	Sp / Pl	5	SW
Saturday	09.02.80	9·00	8	50	120	Spill	8	SW
Sunday	10.02.80	9·30	8	60	110	Spill	10	SW
Monday	11.02.80	11·00	8	30	110	Spill	2	SW
Tuesday	12.02.80	11·30	8	50	110	Plunge	5	SW
Wednesday	13.02.80	10·00	9	50	100	Plunge	2	E
Thursday	14.02.80	10·00	9	30	100	Plunge	0	0
Friday	15.02.80	10·30	10	10	100	Plunge	0	0
Saturday	16.02.80	10·30	10	20	100	Plunge	0	0
Sunday	17.02.80	11·00	0	0	0	0	0	0
Monday	18.02.80	16·00	7	70	100	Plunge	10	E

TABLE 5.4 LITTORAL CONDITIONS DURING THE MONITORING OF 'TEMPORARY' CROSS-SECTIONS

NASH

DAY	DATE	TIME	T_b sec.	H_b cm.	$\alpha°$	Wave Type	Wind k.	Wind Dir
Tuesday	18.03.80	15.15	9	10	120	Plunge	20	NE
Wednesday	19.03.80	15.00	4	15	80	Plunge	35	NE
Thursday	20.03.80	15.00	4	10	75	Plunge	15	NE
Friday	21.03.80	14.45	7	20	90	Plunge	0	0
Saturday	22.03.80	15.00	3	20	110	Plunge	0	0
Sunday	23.03.80	—	—	—	—	—	—	—
Monday	24.03.80	12.00	5	70	90	Sp / Pl	3	NE
Tuesday	25.03.80	12.00	6	90	110	Sp / Pl	15	E
Wednesday	26.03.80	11.15	7	100	100	Plunge	5	E
Thursday	27.03.80	11.15	8	120	120	Plunge	15	SW
Friday	28.03.80	11.00	11	60	90	Plunge	7	E
Saturday	29.03.80	12.15	11	130	110	Plunge	20	SW
Sunday	30.03.80	11.25	10	50	100	Plunge	0	0
Monday	31.03.80	10.30	9	30	110	Spill	15	E
Tuesday	1.04.80	9.30	9	60	120	Spill	0	0

TABLE 6.1 RESULTS OF ALONG-BEACH KOLMOROGOV-SMIRNOV TESTS

GILESTON

Parameter: \ Position:	A	B	C1	D	E	%
Blades	2	2	0	3	0	23
Discs	3	1	2	3	5	3. 47
Rods	1	1	0	0	0	7
Spheres	3	4	3	4	3	1. 57
C-axis M.	2	3	4	0	4	5. 40
C-axis S.	0	2	3	4	5	3. 47
Round. M.	1	0	0	3	1	17
Round. S.	1	0	2	4	1	23
MPS M.	2	5	3	5	0	2. 50
MPS S.	2	0	1	4	4	6. 37
OPI M.	1	0	0	4	0	17
OPI S.	1	0	0	2	0	10
Percent:	3. 26	4. 25	4. 25	1. 50	2. 32	32

TABLE 6.2 RESULTS OF ALONG-BEACH KOLMOROGOV-SMIRNOV TESTS

NASH

Parameter: \ Position:	A	B	CI	D	E	%
Blades	2	1	2	3	2	5. 37
Discs	3	1	0	1	2	6. 26
Rods	2	3	1	3	0	33
Spheres	2	0	1	3	2	30
C-axis M.	3	4	3	3	0	3. 48
C-axis S.	5	4	5	5	2	2. 78
Round. M.	5	6	5	4	2	1. 81
Round. S.	1	1	1	0	2	19
MPS M.	0	0	1	3	2	22
MPS S.	2	1	4	4	1	4. 44
OPI M.	3	3	0	2	1	6. 33
OPI S.	0	0	0	1	1	7
Percent:	3. 38	4. 31	4. 31	2. 40	1. 47	38

GILESTON

	Point →	A		B		C1		D		E		Total:	
	Shape ↓	I	D	I	D	I	D	I	D	I	D	I	D
Median	Blades	4	1	2	0	0	0	1	2	0	0	7	3
	Discs	4	2	1	0	1	1	2	1	5	0	13	4
	Rods	1	0	1	0	0	0	0	0	0	0	2	0
	Spheres	2	4	0	4	1	2	3	1	0	3	6	14
	Total:	11	7	4	4	2	3	6	4	5	3	28	21
Spread	Shape ↓	H	L	H	L	H	L	H	L	H	L	H	L
	Blades	2	3	1	0	1	2	0	0	2	2	6	7
	Discs	2	3	1	0	0	0	0	0	0	0	3	3
	Rods	0	1	1	0	0	0	0	0	0	0	1	1
	Spheres	0	3	0	0	1	1	3	0	2	0	6	4
	Total:	4	10	3	0	2	3	3	0	4	2	16	15

TABLE 6.3 RESULTS OF K-S TEST CUMULATIVE FREQUENCY CURVE ANALYSIS

(I = increase, D = decrease, H = high, L = low)

NASH

	Point →	A		B		C1		D		E		Total:	
	Shape ↓	I	D	I	D	I	D	I	D	I	D	I	D
Median	Blades	0	2	1	0	0	2	0	3	0	2	1	9
	Discs	3	0	1	0	0	0	1	0	0	2	5	2
	Rods	0	2	0	3	0	1	0	3	0	0	0	9
	Spheres	2	0	0	0	0	0	3	0	3	0	8	0
	Total:	5	4	2	3	0	3	4	6	3	4	14	20
Spread	Shape ↓	H	L	H	L	H	L	H	L	H	L	H	L
	Blades	0	2	0	1	0	2	0	1	0	1	0	7
	Discs	2	0	1	0	0	0	0	0	0	2	3	2
	Rods	0	2	0	2	0	1	0	1	0	0	0	6
	Spheres	1	0	0	0	1	0	2	0	0	0	4	0
	Total	3	4	1	3	1	3	2	2	0	3	7	15

TABLE 6.4 RESULTS OF K-S TEST CUMULATIVE FREQUENCY CURVE ANALYSIS

(L = increase, D = decrease, H = high, L = low)

TABLE 6.5 RESULTS OF DOWN-BEACH KOLMOROGOV-SMIRNOV TESTS

GILESTON

Parameter / Position:	1	2	3	4	%	E
Blades	5	9	5	7	[3] 65	[5] 62
Discs	8	6	6	6	[3] 65	42
Rods	1	0	2	3	15	17
Spheres	5	7	5	9	[3] 65	[6] 46
C-axis M.	6	8	6	8	[2] 70	29
C-axis S.	8	8	6	8	[1] 75	41
Round. M.	4	8	4	4	50	[1] 67
Round. S.	7	6	2	1	40	31
MPS M.	5	5	3	5	45	33
MPS S.	7	6	5	5	58	[4] 65
OPI M.	7	7	4	6	[6] 60	[1] 67
OPI S.	5	5	4	4	45	[1] 67
Percent:	[2] 57	[1] 63	[4] 43	[3] 55	54	50

TABLE 6.6 RESULTS OF DOWN-BEACH KOLMOROGOV-SMIRNOV TESTS

NASH

Position: / Parameter:	1	2	3	4	%	E
Blades	3	1	1	1	17	33
Discs	1	1	6	4	[3.] 33	[5.] 50
Rods	0	0	2	0	6	[1.] 100
Spheres	4	3	4	3	[1.] 39	[5.] 50
C-axis M.	4	4	0	2	[5.] 28	20
C-axis S.	3	5	4	2	[1.] 39	43
Round. M.	2	6	3	0	[4.] 31	27
Round. S.	4	0	1	0	14	40
MPS M.	2	2	3	3	[5.] 28	[4.] 60
MPS S.	2	0	0	0	6	[5.] 50
OPI M.	1	3	2	0	17	[3.] 67
OPI S.	2	4	0	1	19	[2.] 86
Percent:	[1.] 23	[1.] 23	[3.] 22	[3.] 22	23	47

GILESTON

	Profile →	1		2		3		4		Total:		E	
	Shape ↓	I	D	I	D	I	D	I	D	I	D	I	D
Median	Blades	4	1	8	1	5	0	4	3	21	5	16	0
	Discs	2	6	5	1	0	6	4	2	11	15	5	6
	Rods	1	0	0	0	0	2	0	3	1	5	0	1
	Spheres	2	3	1	6	3	2	4	5	10	16	0	12
	Total:	9	10	14	8	8	10	12	13	43	41	17	19
Spread	Shape ↓	H	L	H	L	H	L	H	L	H	L	H	L
	Blades	4	0	6	1	2	0	2	0	14	1	10	0
	Discs	4	2	0	5	1	2	3	0	8	9	3	4
	Rods	1	0	0	0	0	1	2	0	3	1	0	0
	Spheres	0	1	1	3	1	0	4	1	6	5	0	3
	Total:	9	3	7	9	4	3	11	1	31	16	13	7

TABLE 6.7 RESULTS OF K-S TEST CUMULATIVE FREQUENCY CURVE ANALYSIS

(L = increase, D = decrease, H = high, L = low)

NASH

	Profile →	1		2		3		4		Total:		E	
	Shape ↓	I	D	I	D	I	D	I	D	I	D	I	D
Median	Blades	2	1	1	0	0	1	1	0	4	2	3	0
	Discs	0	1	1	0	0	6	0	4	1	11	1	5
	Rods	0	0	0	0	0	2	0	0	0	2	0	2
	Spheres	2	2	0	3	4	0	3	0	9	5	2	5
	Total:	4	4	2	3	4	9	4	4	14	20	6	12
Spread	Shape ↓	H	L	H	L	H	L	H	L	H	L	H	L
	Blades	1	1	1	0	0	0	0	1	2	2	2	0
	Discs	0	0	1	0	0	5	1	1	2	6	1	4
	Rods	0	0	0	0	0	0	0	0	0	0	0	0
	Spheres	0	0	0	3	1	1	0	2	1	6	0	4
	Total:	1	1	2	3	1	6	1	4	5	14	3	8

TABLE 6.8 RESULTS OF K-S TEST CUMULATIVE FREQUENCY CURVE ANALYSIS

(I = increase, D = decrease, H = high, L = low)

GILESTON

1. N	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2. NE	0	0	0	0	0	0	50	2	0	0	84	37	7	0	0	2	0	0	0	0	0	0	0	
3. E	0	0	4	1	1	0	0	36	0	0	0	17	8	0	1	1	7	0	0	0	0	0	0	
4. SE	1	0	13	1	0	9	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5. S	1	0	7	4	0	1	0	14	2	12	0	0	0	0	5	0	0	19	0	0	0	0	0	
6. SW	39	0	24	13	18	4	1	3	4	44	1	0	0	0	0	5	0	8	5	0	0	2	0	
7. W	31	35	31	46	31	70	24	0	11	113	5	3	0	8	32	40	63	54	51	29	22	50	30	
8. NW	0	14	0	4	7	1	1	0	0	0	15	0	0	2	1	2	38	5	6	0	0	3	22	
9. $\bar{H}_3$	/	/	/	/	/	/	/	/	/	/	0.6	0.4	0.7	0.5	0.8	1.9	0.4	0.7	0.4	0.6	1.3	0.2	1.3	0.3
10. $\bar{T}$	/	/	/	/	/	/	/	/	/	/	4.4	1.9	3.3	2.2	3.2	2.9	3.3	2.7	2.9	3.6	3.7	2.7	3.5	4.0
11. $\bar{H}_3$	/	/	/	/	/	/	/	/	/	/	0.9	0.8	0.2	0.8	0.7	1.0	0.8	1.3	0.4	0.9	0.3	0.3	0.8	0.7
12. $\bar{T}$	/	/	/	/	/	/	/	/	/	/	5.5	2.7	6.4	2.7	2.7	3.2	2.8	3.3	2.9	3.4	3.1	2.6	3.3	4.5
13. HW	5.4	4.9	6.3	5.1	6.2	5.1	6.5	5.1	6.4	4.4	5.3	5.2	5.3	5.7	4.9	5.8	4.0	5.0	4.8	5.1	5.1	5.2	5.6	5.7
14.																								

N D J F M A M J J A S O

1978

TABLE 6.9 WIND, WAVE AND TIDE DATA FOR STANDARD SEDIMENT SAMPLES

NASH

1. N	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
2. NE	0	0	0	0	0	0	50	2	0	0	84	23	7	0	0	2	0	0	0	0	0	0	0	
3. E	0	0	4	1	1	0	0	36	0	0	0	29	8	0	0	1	7	0	0	0	0	0	0	
4. SE	1	0	13	1	0	9	0	16	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	
5. S	1	0	7	4	0	1	0	14	2	12	0	0	0	0	0	0	0	19	0	0	0	0	0	
6. SW	31	0	24	13	18	4	1	3	4	44	1	2	0	0	0	5	0	8	5	0	0	2	0	
7. W	63	35	31	46	31	70	24	0	11	113	5	41	0	8	31	40	63	54	51	36	22	50	30	
8. NW	7	14	0	4	7	1	1	0	0	0	15	0	0	2	3	2	38	5	6	0	0	3	22	
9. $\bar{H}_3$	/	/	/	/	/	/	/	/	/	/	0.9	0.7	0.3	0.8	0.6	1.0	0.8	0.8	0.4	0.8	0.3	0.3	0.6	0.7
10. $\bar{T}$	/	/	/	/	/	/	/	/	/	/	5.5	2.6	5.4	2.7	2.9	3.2	2.8	2.9	2.9	3.7	3.1	2.6	3.4	3.4
11. $\bar{H}_3$	/	/	/	/	/	/	/	/	/	/	/	0.7	0.4	0.5	0.8	0.9	0.7	1.1	0.4	0.7	0.4	0.3	1.3	0.3
12. $\bar{T}$	/	/	/	/	/	/	/	/	/	/	/	2.9	2.7	2.0	3.2	2.5	4.1	3.5	4.2	4.6	2.9	3.0	4.1	3.5
13. HW	5.9	5.0	6.1	5.1	5.8	5.3	6.4	5.5	6.3	5.1	5.7	5.8	5.4	5.8	4.7	5.9	4.4	5.5	5.1	6.0	5.3	5.7	5.3	5.2
14.																								

N D J F M A M J J A S O

1978

TABLE 6.10 WIND, WAVE AND TIDE DATA FOR STANDARD SEDIMENT SAMPLES

TABLE 7.1 WAVE PARAMETERS COVERING THE 15 SWASH ZONE EXPERIMENTS

WAVE PARAMETERS									Experiments	
Date	Vel.	H_b	H_o	T_b	T_o	t	t/T_b	r	S.V.	S.T.
1.11.79	4.6	106	—	8.0	—	—	—	—	✓	
13.11.79	3.6	56	—	8.0	—	—	—	—	✓	
27.11.79	5.0	91	74	10.0	4.5	—	—	—	✓	
13.12.79	4.7	152	73	8.0	5.9	—	—	—	✓	
25.1.80	4.8	30	35	4.0	4.3	—	—	—	✓	
25.2.80	5.0	91	74	10.0	4.4	—	—	—	✓	
11.3.80	4.2	53	15	7.0	2.3	—	—	—	✓	
24.3.80	4.0	76	15	5.0	4.1	—	—	—	✓	
12.2.81	4.5	60	64	5.3	3.3	1.9	0.36	6.9	✓	
27.2.81	4.0	46	85	10.9	3.0	2.2	0.20	—	✓	✓
14.3.81	3.9	122	71	8.2	5.4	10.8	1.32	8.4	✓	✓
10.4.81	3.7	46	32	5.7	2.3	3.2	0.56	10.1	✓	✓
25.4.81	—	122	—	7.6	—	3.9	0.51	9.3		✓
9.5.81	—	61	—	7.7	—	3.1	0.40	—		✓
1.6.81	3.9	30	—	7.2	—	2.4	0.33	7.3	✓	✓

TABLE 7.2 CORRELATION MATRIX USING WAVE PARAMETER DATA FROM TABLE 7.1

CORRELATION MATRIX

N = 10

Var:					
Vel.					
T_b	0·20				
H_o	0·36	0·74			
H_b	0·22	0·36	0·45		
T_o	0·45	0·17	0·46	0·82	
Var:	Vel.	T_b	H_o	H_b	T_o

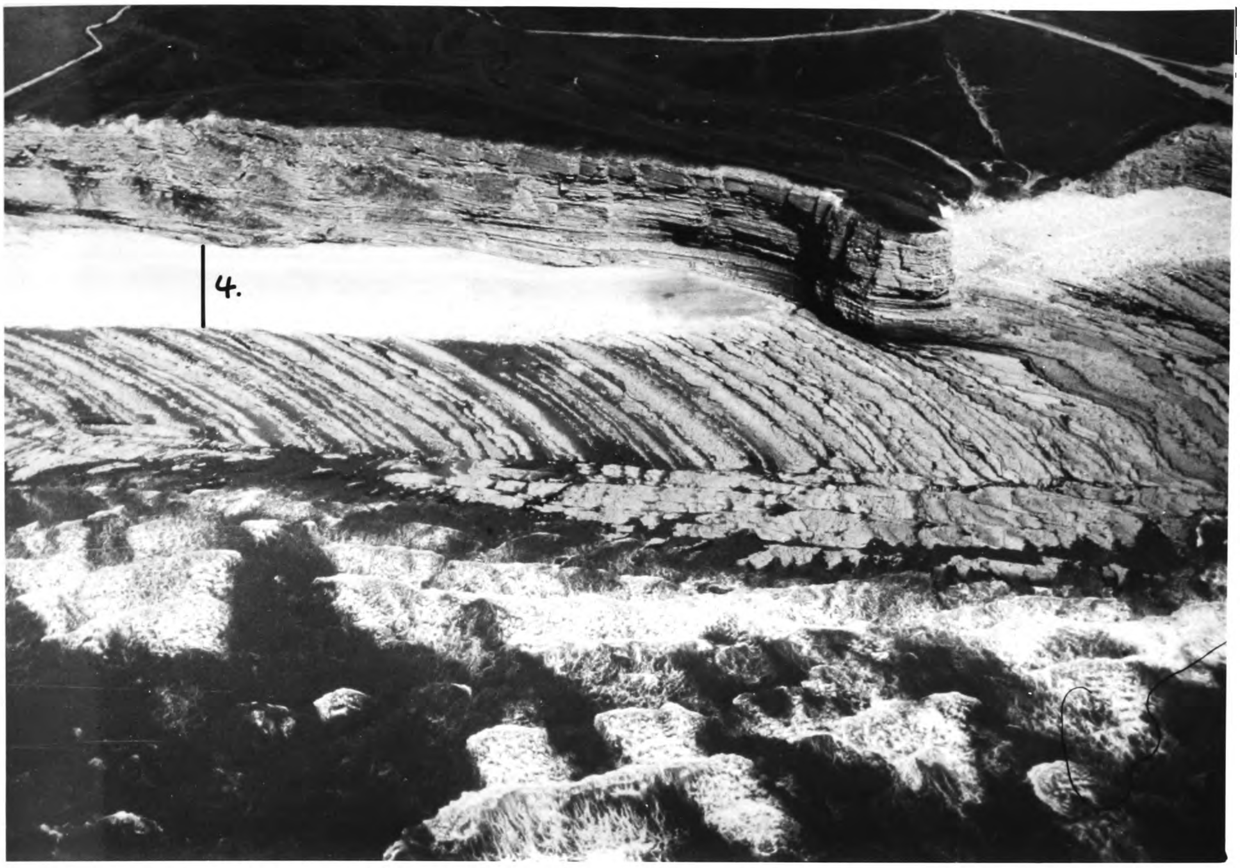


PLATE 1 Aerial view of Nash Point and beach (cross-section 4 marked).

PLATE 2 Aerial view of Gileston beach (cross-sections 1-4 marked).

PLATE 3a Welsh Water Authority excavation of Gileston Beach.

PLATE 3b Showing the two grades of material.

PLATE 3c Section through the back beach.

PLATE 3d Showing the two grades of material.

PLATE 3f The seaward outfall.

PLATE 4 Specially geared Rustrak Event Recorder.

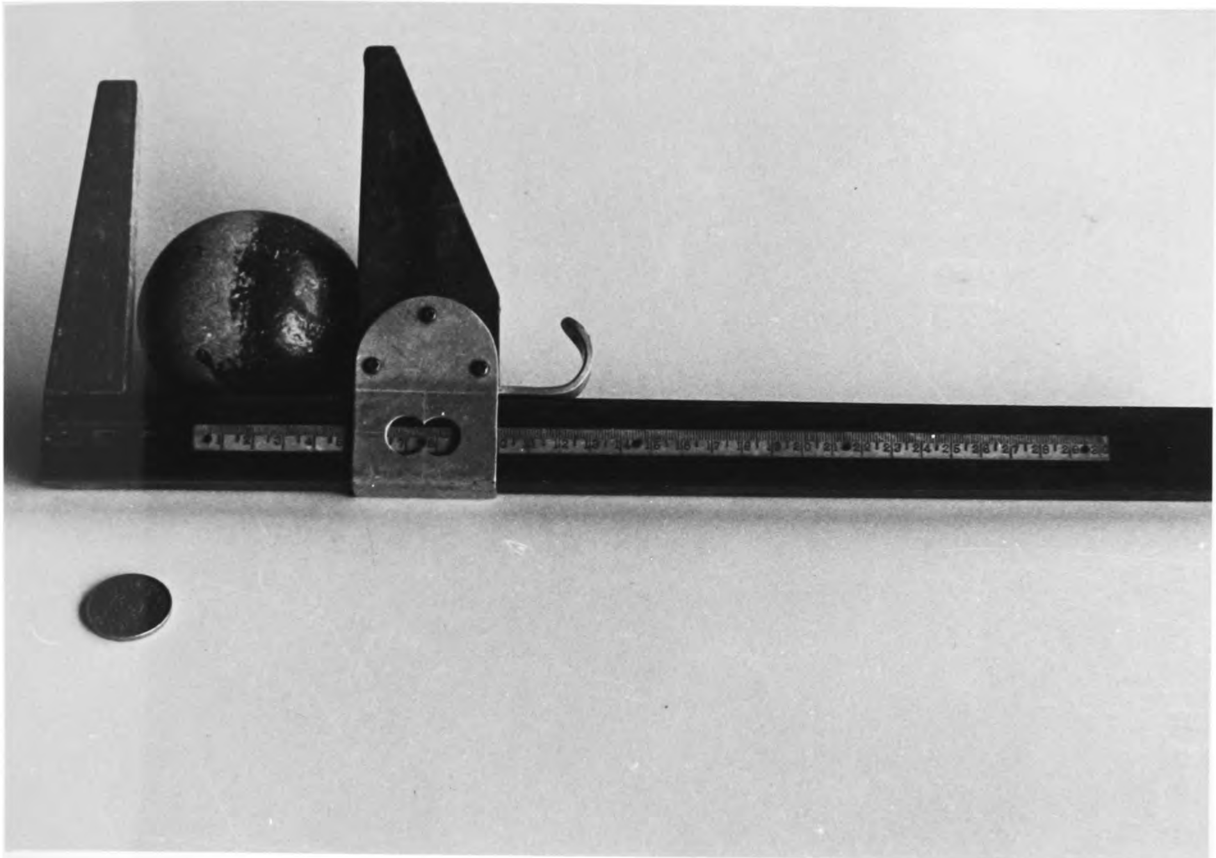


PLATE 5 The pebbleometer.

PLATE 6 Tracers deposited on Gileston Beach.

PLATE 7 Tracers dispersed on Gileston Beach (10.3.78).

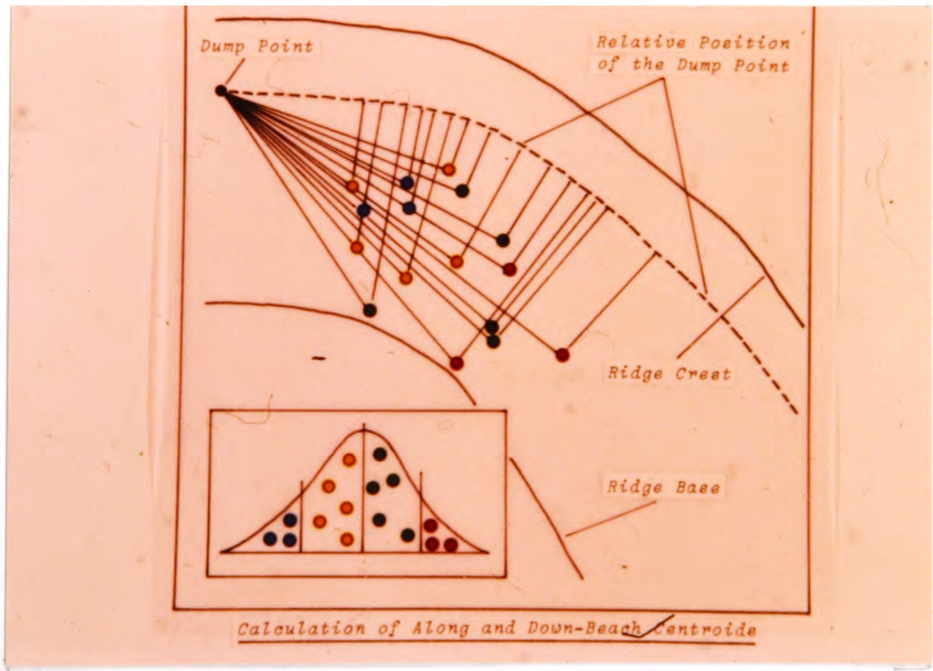


PLATE 8 Calculation of sub-group centroids (section 4.3.2).

PLATE 9 Measuring material in Tracer/Host Tests.

PLATE 10 Surveying on cross-section 1 at Gileston.

PLATE 11 Surveying on cross-section 2 at Gileston.

PLATE 12 Surveying on cross-section 3 at Gileston.

PLATE 13 Surveying on cross-section 4 at Gileston.

PLATE 14 Surveying on cross-section 1 at Nash.

PLATE 15 Surveying on cross-section 2 at Nash.

PLATE 16 Surveying on cross-section 3 at Nash.

PLATE 17 Surveying cross-section 4 at Nash.

PLATE 18 Bolting the Swash Transducer into position.

PLATE 19 Adjusting the position of the sensing head.

PLATE 20 The analogue chart recorder in operation.

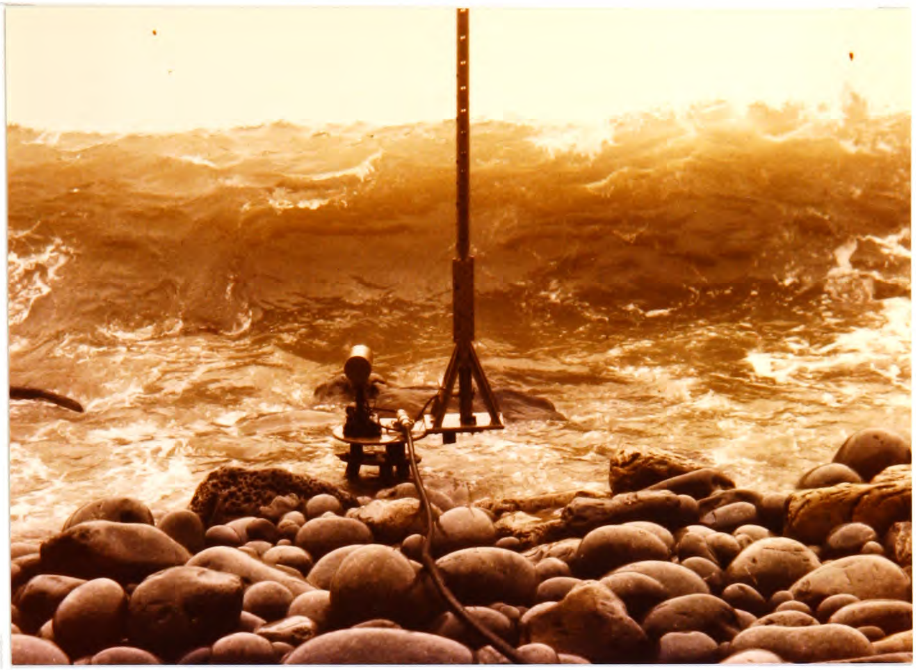


PLATE 21 Wave breaks on swash transducer and depth guage.

PLATE 22 Mark II swash transducer on beach (9.5.81)

PLATE 23 Positioning the swash velocity recording rods.

PLATE 24 Positioning the swash velocity recording rods.

PLATE 25 Burying the concrete support legs.

PLATE 26 Fixing the steel collars.

PLATE 27 Typical sediment size distribution on Nash beach.

PLATE 28 Typical sediment size distribution on Nash beach.

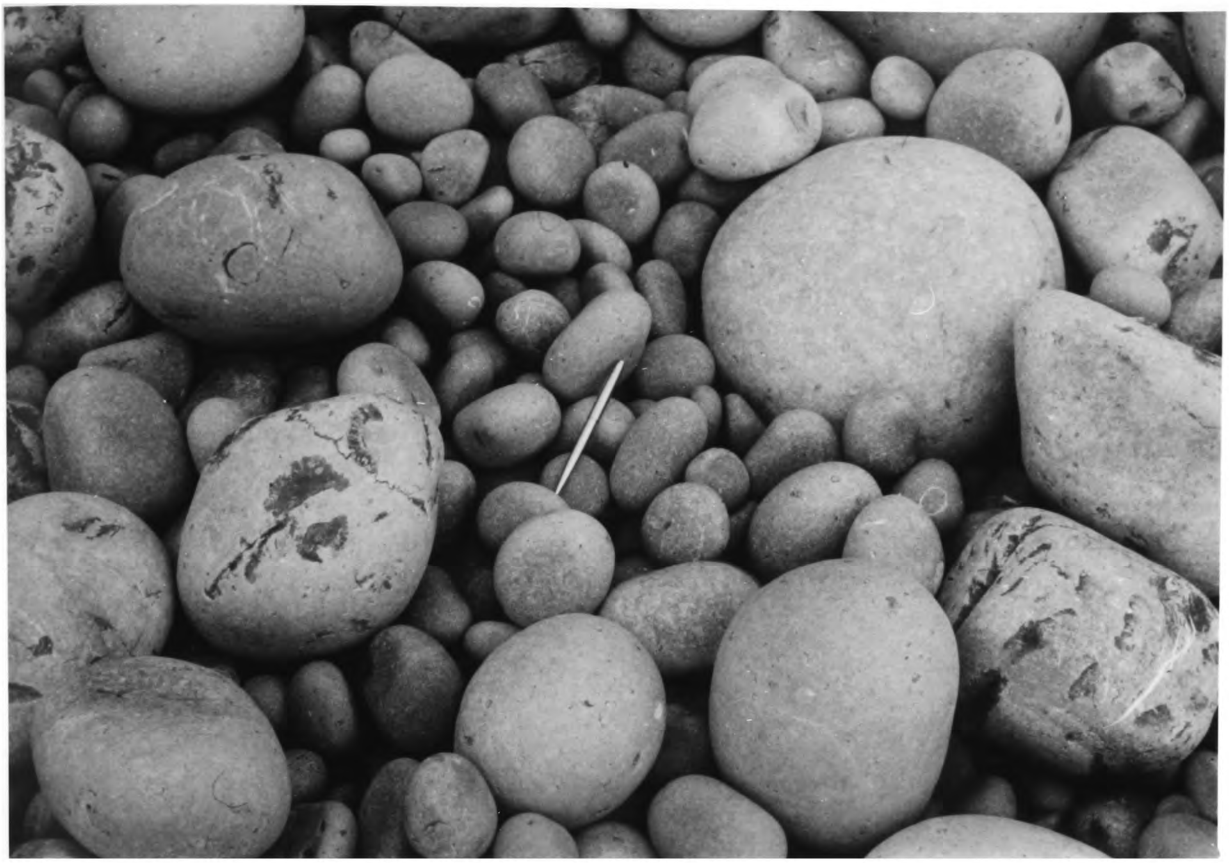


PLATE 29 Typical sediment size distribution on Nash beach.

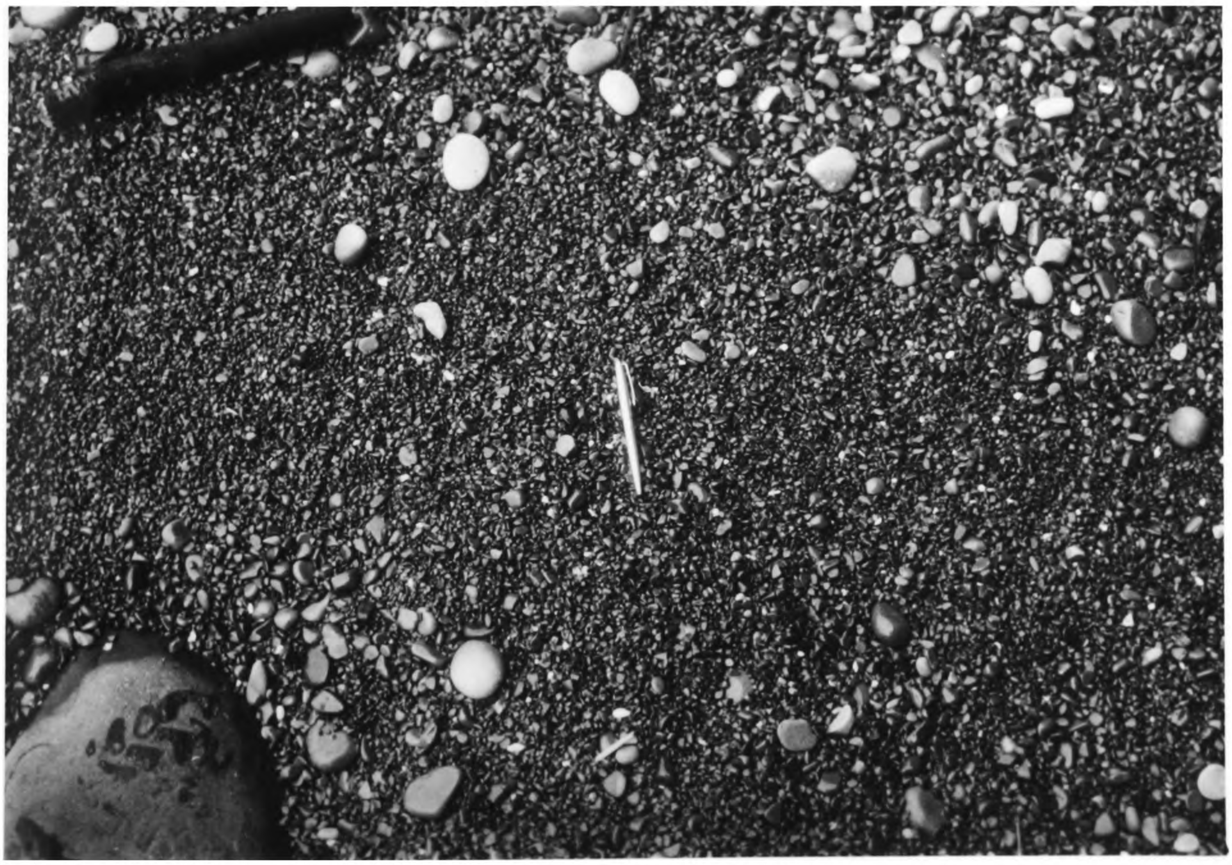


PLATE 30 Typical sediment size distribution on Nash beach.

PLATE 31 The Mark II swash transducer fixed to base plate.

PLATE 32 The transmission cable strapped to hawser and anchor line.

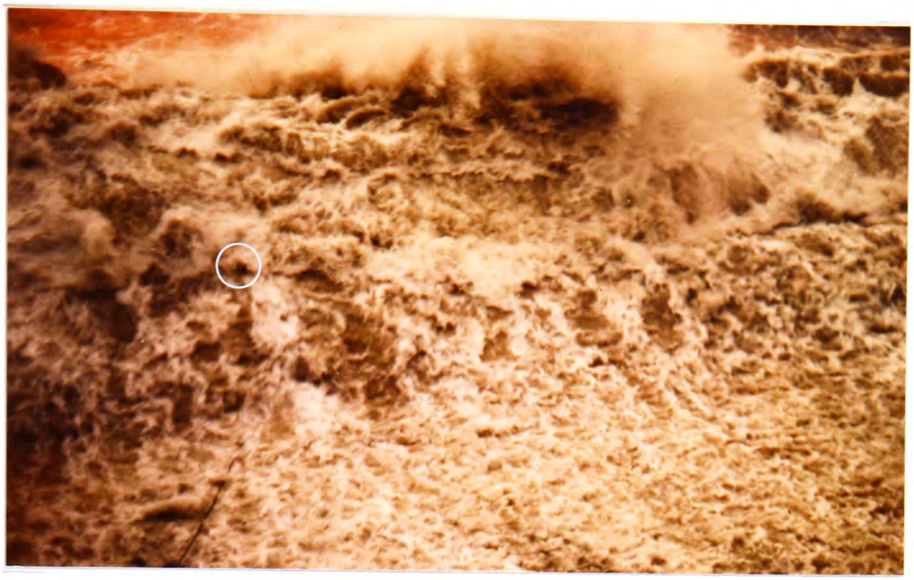


PLATE 33 Top of depth guage under 4 metre wave.

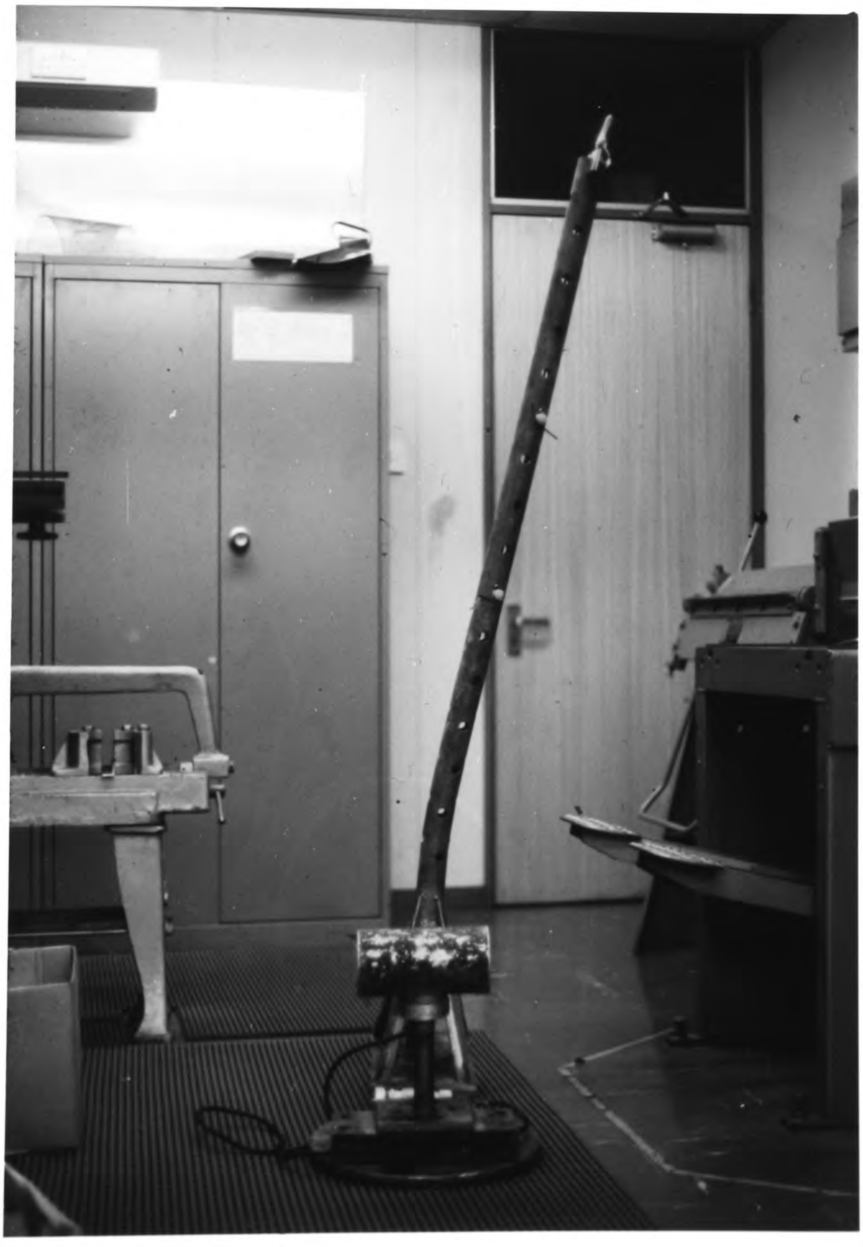


PLATE 34 Instrumentation after conditions shown above.

PLATE 35 Littoral and beach conditions on 27.2.81

PLATE 36 Littoral and beach conditions on 27.2.81

PLATE 37 Littoral and beach conditions on 14.3.81

PLATE 38 Wave breaking on transducer - see text for details.

PLATE 39 Littoral and beach conditions on 10.4.81

PLATE 40 The turbulent waters of a plunging wave.

PLATE 41 Wave plunges seawards of the transducer.

PLATE 42 Swash and backwash combine to form hydraulic jump wave.

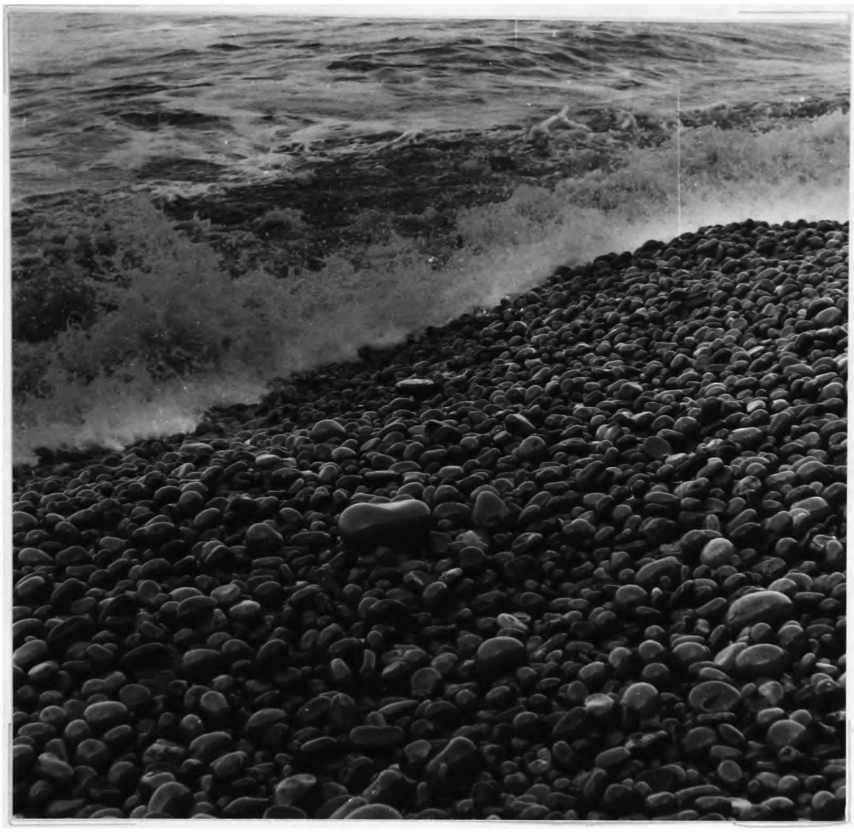


PLATE 43 Transducer at 955 hrs located in pebble bank.

PLATE 44 Transducer exposed by ebbing tide on 9.5.81

PLATE 45 Base plate exposed prior to the experiment on 1.6.81

PLATE 46 Low energy conditions prevailed on 1.6.81

APPENDIX 4.1 BASIC DATA FROM THE FIRST 10 TRACER SURVEYS

1st column: Survey number (Table 4.1)

2nd column: Distance in metres along-beach from the injection point (see Plate 8)

3rd column: Distance in metres above (negative values) or below (positive values) the relative position of the injection point in the down-beach direction (see Plate 8)

4th column: Tracer A-axis (cm)

5th column: Tracer B-axis (cm)

6th column: Tracer C-axis (cm)

7th column: Tracer roundness on roundness chart (see Fig: 3.5)

8th column: Tracer Maximum Projection Sphericity

9th column: Tracer Oblate-Prolate Index

1	64.349	7.694	9.4	7.4	6.9	.6	0.88	4.09
1	63.474	7.629	24.7	14.6	11.8	.5	0.73	5.92
1	62.465	6.669	31.0	21.6	16.3	.4	0.73	2.65
1	58.340	10.379	11.2	9.9	9.1	.3	0.91	1.47
1	58.439	10.391	25.1	11.3	10.3	.6	0.72	10.54
1	58.439	10.391	20.1	13.1	8.5	.5	0.65	2.45
1	55.800	19.342	27.0	16.4	11.6	.6	0.67	4.38
1	56.340	16.936	10.6	7.9	6.4	.7	0.79	2.37
1	56.340	16.936	11.5	8.4	4.0	.8	0.55	-2.49
1	74.094	24.922	25.8	23.0	15.4	.5	0.74	-3.87
1	55.695	10.064	27.5	16.0	13.2	.4	0.73	6.34
1	59.222	6.735	28.2	12.9	8.7	.5	0.60	9.28
1	59.222	6.735	20.6	13.9	11.1	.5	0.75	3.81
1	56.466	5.780	14.7	11.9	9.9	.2	0.82	1.24
1	45.391	10.116	7.7	7.1	5.4	.6	0.81	-3.41
1	45.391	10.116	32.0	20.2	12.3	.5	0.62	2.58
1	37.108	21.099	29.0	22.5	14.2	.4	0.68	-1.24
1	18.237	16.159	9.3	8.9	6.8	.8	0.82	-4.65
1	32.888	-3.541	31.0	15.3	11.8	.5	0.66	8.35
1	31.604	-1.230	17.3	13.9	10.1	.6	0.75	-0.48
1	31.604	-1.230	18.6	10.8	10.6	.6	0.82	8.33
1	31.604	-1.230	7.7	6.3	4.1	.5	0.70	-2.09
1	31.604	-1.230	7.0	5.4	2.5	.5	0.55	-4.04
1	15.557	15.408	21.8	19.1	7.4	.4	0.51	-9.21
1	15.557	15.408	16.1	9.9	8.2	.6	0.75	5.59
1	15.557	15.408	4.8	3.1	1.7	.4	0.58	1.37
1	15.557	15.408	12.0	9.6	7.3	.6	0.77	0.17
1	15.557	15.408	19.5	17.3	4.5	.3	0.39	-15.31
1	25.022	21.137	30.5	19.1	16.8	.5	0.79	6.03
1	13.963	8.673	10.4	6.5	3.6	.1	0.58	2.12
1	45.551	5.184	10.8	7.1	7.1	.5	0.87	7.61
1	45.551	5.184	14.3	9.9	4.8	.5	0.55	-1.10
1	45.551	5.184	6.4	4.8	3.4	.6	0.72	0.63
1	47.103	-0.103	10.2	10.0	6.8	.2	0.77	-6.62
1	47.103	-0.103	8.8	4.6	4.4	.5	0.78	9.09
1	47.103	-0.103	16.8	9.7	7.4	.4	0.70	5.80
1	47.103	-0.103	6.1	5.5	4.2	.8	0.81	-2.68
1	51.621	1.539	10.1	5.7	4.2	.6	0.67	5.91
1	51.621	1.539	10.8	6.8	3.7	.5	0.57	1.85
1	40.980	-2.688	10.1	5.3	4.0	.5	0.67	7.24
1	40.980	-2.688	12.3	9.0	3.3	.4	0.46	-4.97
1	35.912	-3.425	9.4	9.3	5.0	.6	0.66	-8.97
1	35.912	-3.425	19.3	11.9	9.5	.4	0.73	5.18
1	35.912	-3.425	16.3	7.4	6.3	.6	0.73	10.47
1	32.239	-2.719	11.5	8.2	4.2	.5	0.57	-1.31
1	32.239	-2.719	9.7	5.1	3.6	.4	0.64	6.85
1	32.239	-2.719	13.1	6.8	5.0	.6	0.65	7.28
1	32.239	-2.719	9.1	7.4	6.5	.6	0.86	2.15
1	32.239	-2.719	10.1	9.8	4.9	.4	0.62	-9.12
1	32.239	-2.719	16.2	13.5	11.8	.7	0.86	1.56
1	32.239	-2.719	14.8	9.4	4.3	.4	0.51	0.49
1	32.239	-2.719	8.2	7.1	4.2	.6	0.67	-4.39
1	32.073	0.828	10.1	6.1	4.7	.6	0.71	5.17
1	32.073	0.828	9.4	7.8	6.3	.6	0.81	0.24
1	32.073	0.828	26.9	15.6	13.2	.6	0.75	6.62
1	32.073	0.828	29.4	18.4	16.5	.3	0.80	6.28
1	30.005	-0.393	31.0	20.5	15.0	.6	0.71	3.23
1	30.005	-0.393	7.9	7.6	2.1	.4	0.42	-16.86
1	30.005	-0.393	6.4	4.5	3.5	.7	0.75	2.84
1	30.005	-0.393	24.3	17.4	7.8	.4	0.52	-2.55
1	30.032	-2.651	9.3	5.0	4.2	.6	0.72	7.60
1	30.032	-2.651	11.0	9.1	5.4	.6	0.66	-3.27
1	30.032	-2.651	12.0	9.0	4.5	.6	0.57	-2.67
1	30.032	-2.651	9.2	6.4	4.0	.7	0.65	0.88
1	30.032	-2.651	11.5	8.4	4.0	.8	0.55	-2.49
1	30.032	-2.651	9.6	7.0	3.6	.7	0.58	-1.78

1	28.083	2.123	35.0	19.4	16.2	.6	0.73	7.13
1	28.083	2.123	31.0	18.1	15.4	.5	0.75	6.58
1	28.083	2.123	28.9	27.0	19.6	.4	0.79	-4.36
1	28.083	2.123	19.4	16.1	8.8	.5	0.63	-4.16
1	28.083	2.123	8.2	7.2	3.1	.7	0.55	-8.04
1	28.083	2.123	11.1	6.3	4.6	.7	0.67	5.75
1	13.328	3.839	28.5	22.8	18.2	.5	0.80	0.84
1	13.328	3.839	19.2	12.9	8.0	.7	0.64	1.50
1	13.328	3.839	11.2	10.6	7.0	.6	0.74	-5.71
1	13.328	3.839	9.6	5.7	4.4	.7	0.71	5.45
1	23.778	-1.425	8.5	7.0	4.6	.4	0.71	-2.13
1	23.778	-1.425	9.8	8.5	5.2	.8	0.69	-4.10
1	23.778	-1.425	10.9	9.9	6.8	.5	0.75	-4.11
1	23.778	-1.425	20.2	11.0	10.4	.5	0.79	8.52
1	23.778	-1.425	10.6	9.7	6.5	.5	0.74	-4.57
1	23.778	-1.425	8.8	6.9	5.1	.7	0.75	0.23
1	23.778	-1.425	10.3	7.9	6.9	.5	0.84	3.07
1	23.778	-1.425	13.0	10.9	7.9	.5	0.76	-1.45
1	23.778	-1.425	8.2	6.2	4.7	.5	0.76	1.25
1	21.459	-2.764	9.1	7.9	5.9	.8	0.79	-1.93
1	21.459	-2.764	8.0	7.2	4.8	.8	0.74	-4.17
1	21.459	-2.764	27.3	19.8	11.5	.4	0.63	-0.60
1	21.999	0.050	11.4	9.5	7.8	.8	0.83	0.41
1	21.999	0.050	7.0	5.4	2.9	.4	0.61	-2.65
1	21.999	0.050	13.0	10.1	5.0	.6	0.58	-3.58
1	21.999	0.050	8.3	8.2	5.6	.7	0.77	-6.86
1	21.999	0.050	10.4	6.5	5.3	.6	0.75	5.19
1	21.999	0.050	14.4	7.6	5.3	.7	0.64	6.72
1	21.999	0.050	12.5	6.3	5.8	.6	0.75	9.17
1	21.999	0.050	13.9	12.5	7.0	.7	0.66	-5.90
1	21.999	0.050	9.8	6.6	5.4	.6	0.77	4.12
1	21.999	0.050	17.4	11.5	6.3	.6	0.58	0.87
1	21.999	0.050	9.2	7.8	6.2	.8	0.81	-0.49
1	21.999	0.050	15.0	12.2	8.8	.6	0.75	-0.82
1	21.999	0.050	25.0	13.4	9.8	.3	0.66	6.71
1	21.999	0.050	30.5	20.4	9.0	.6	0.51	-1.02
1	21.999	0.050	13.7	9.4	6.4	.4	0.68	1.91
1	21.051	-1.743	9.6	6.1	6.1	.5	0.86	7.87
1	21.051	-1.743	21.5	17.1	10.9	.4	0.69	-1.67
1	21.051	-1.743	9.5	7.7	5.1	.5	0.71	-1.69
1	21.051	-1.743	8.4	5.4	4.6	.5	0.78	5.29
1	21.051	-1.743	3.8	2.9	2.9	.5	0.91	6.55
1	21.051	-1.743	6.5	4.4	3.2	.5	0.71	2.77
1	21.051	-1.743	22.4	10.5	10.5	.4	0.78	10.67
1	21.051	-1.743	23.7	17.1	14.3	.3	0.80	3.35
1	21.051	-1.743	5.5	4.6	4.2	.5	0.89	2.52
1	21.051	-1.743	17.4	11.0	9.8	.5	0.79	6.07
1	21.051	-1.743	17.8	13.9	8.6	.6	0.67	-1.57
1	21.051	-1.743	8.3	7.3	5.0	.4	0.74	-3.27
1	21.051	-1.743	8.0	5.6	5.3	.5	0.86	5.87
1	21.051	-1.743	6.0	3.8	3.4	.5	0.80	6.11
1	21.051	-1.743	25.9	12.3	10.1	.6	0.68	9.25
1	21.051	-1.743	31.7	22.0	17.1	.6	0.75	3.05
1	20.342	-4.096	12.2	8.9	6.8	.6	0.75	1.99
1	20.342	-4.096	19.0	13.6	8.7	.6	0.66	0.53
1	20.342	-4.096	10.4	7.2	4.7	.5	0.67	1.36
1	20.342	-4.096	7.2	3.3	2.8	.5	0.69	9.94
1	20.342	-4.096	6.8	5.2	3.6	.5	0.72	0.00
1	20.342	-4.096	6.2	5.5	2.8	.6	0.61	-6.51
1	20.342	-4.096	9.4	4.5	3.6	.4	0.67	9.00
1	20.342	-4.096	11.4	6.5	4.5	.6	0.65	5.32
1	20.342	-4.096	8.4	4.1	3.3	.6	0.68	8.73
1	20.342	-4.096	12.0	9.8	6.5	.6	0.71	-1.85
1	49.848	-11.143	18.4	10.7	5.2	.4	0.52	2.95
1	20.342	-4.096	15.4	12.1	6.3	.6	0.60	-3.36
1	20.342	-4.096	14.2	8.7	7.1	.6	0.74	5.49

1	20.342	-4.096	8.3	5.0	2.7	.6	0.56	2.74
1	20.342	-4.096	9.6	8.9	5.5	.5	0.71	-5.75
1	20.176	-1.271	31.7	22.0	17.1	.6	0.75	3.05
1	20.176	-1.271	8.4	5.4	4.6	.5	0.78	5.29
1	20.176	-1.271	9.5	7.7	5.1	.5	0.71	-1.69
1	20.176	-1.271	21.5	17.1	10.9	.4	0.69	-1.67
1	20.176	-1.271	8.3	7.3	5.0	.4	0.74	-3.27
1	20.176	-1.271	6.5	4.4	3.2	.5	0.71	2.77
1	20.176	-1.271	22.4	10.5	10.5	.4	0.78	10.67
1	20.176	-1.271	23.7	17.1	14.3	.3	0.80	3.35
1	20.176	-1.271	5.5	4.6	4.2	.5	0.89	2.52
1	20.176	-1.271	3.8	2.9	2.9	.5	0.91	6.55
1	20.176	-1.271	8.0	5.6	5.3	.5	0.86	5.87
1	20.176	-1.271	19.7	11.5	7.6	.5	0.63	4.61
1	20.176	-1.271	6.0	3.8	3.4	.5	0.80	6.11
1	20.009	2.531	8.1	6.5	3.4	.5	0.60	-3.80
1	20.009	2.531	16.7	14.4	9.4	.5	0.72	-3.29
1	20.009	2.531	20.7	13.2	8.7	.3	0.65	2.97
1	20.009	2.531	9.6	7.6	4.0	.4	0.60	-3.43
1	20.009	2.531	6.7	5.2	4.4	.5	0.82	2.32
1	20.009	2.531	7.4	7.1	3.3	.6	0.59	-9.57
1	20.009	2.531	21.6	10.7	9.5	.5	0.73	9.11
1	20.009	2.531	5.0	3.4	1.7	.3	0.55	-0.45
1	20.009	2.531	15.1	9.8	8.9	.5	0.81	6.02
1	23.442	3.167	13.8	9.1	7.0	.5	0.73	3.77
1	23.442	3.167	8.8	7.2	4.9	.6	0.72	-1.61
1	23.442	3.167	11.2	10.0	7.0	.6	0.76	-3.43
1	23.442	3.167	9.6	5.7	4.4	.7	0.71	5.45
1	23.442	3.167	11.7	9.8	6.6	.6	0.72	-2.26
1	23.445	6.430	19.2	12.9	8.0	.7	0.64	1.50
1	23.445	6.430	28.5	22.8	18.2	.5	0.80	0.84
1	19.803	5.438	8.3	7.0	6.4	.6	0.89	2.39
1	15.789	4.286	22.5	16.9	13.7	.5	0.79	2.24
1	15.789	4.286	16.3	11.8	9.3	.6	0.77	2.50
1	13.911	5.758	11.0	8.0	6.3	.7	0.77	2.41
1	14.946	6.116	6.2	4.5	3.7	.7	0.79	3.02
1	17.878	0.711	8.8	6.0	3.3	.6	0.59	0.24
1	17.878	0.711	18.6	14.5	8.2	.6	0.63	-2.40
1	17.878	0.711	7.3	6.3	5.3	.5	0.85	0.00
1	17.878	0.711	11.4	8.6	7.8	.6	0.85	4.06
1	17.878	0.711	17.0	9.7	8.1	.6	0.74	6.72
1	17.878	0.711	14.7	12.3	10.4	.8	0.84	0.82
1	17.878	0.711	24.3	17.4	15.7	.5	0.84	4.68
1	17.878	0.711	6.2	4.5	3.7	.7	0.79	3.02
1	17.878	0.711	36.8	27.4	13.6	.4	0.57	-2.57
1	17.878	0.711	28.7	20.5	12.2	.6	0.63	-0.07
1	16.842	-1.587	10.6	8.2	6.8	.7	0.81	2.05
1	16.842	-1.587	7.3	5.7	4.1	.6	0.74	0.00
1	16.842	-1.587	5.9	3.9	1.8	.4	0.52	-0.40
1	16.842	-1.587	7.0	4.6	3.8	.6	0.77	4.61
1	16.842	-1.587	12.0	8.7	8.2	.6	0.86	5.39
1	16.842	-1.587	10.3	8.2	5.0	.5	0.67	-2.14
1	16.842	-1.587	33.2	17.9	17.0	.6	0.79	8.68
1	17.722	-3.349	6.6	3.4	3.4	.6	0.80	9.71
1	17.722	-3.349	13.0	10.5	4.0	.6	0.49	-7.22
1	17.722	-3.349	11.7	8.2	6.2	.6	0.74	2.57
1	17.722	-3.349	25.6	15.0	12.1	.4	0.73	6.03
1	17.722	-3.349	15.1	5.3	5.2	.6	0.70	14.23
1	17.722	-3.349	23.6	16.8	14.1	.5	0.79	3.61
1	17.722	-3.349	7.5	4.2	3.1	.6	0.67	6.05
1	17.722	-3.349	26.6	10.7	7.8	.4	0.60	11.79
1	17.722	-3.349	12.4	9.5	7.0	.5	0.75	0.66
1	17.722	-3.349	27.5	18.8	14.0	.5	0.72	2.84
1	19.738	-4.039	11.9	9.6	8.0	.6	0.82	1.33
1	19.738	-4.039	8.4	4.1	3.3	.6	0.68	8.73
1	19.738	-4.039	12.0	9.8	6.5	.6	0.71	-1.85

1	19.738	-4.039	8.3	5.0	2.7	.6	0.56	2.74
1	120.686	-48.342	7.2	3.3	2.8	.5	0.69	9.94
1	19.738	-4.039	6.8	5.2	3.6	.5	0.72	0.00
1	19.738	-4.039	11.4	6.5	4.5	.6	0.65	5.32
1	19.738	-4.039	11.7	6.5	6.0	.5	0.78	8.04
1	19.738	-4.039	18.4	10.7	5.2	.4	0.52	2.95
1	19.738	-4.039	10.4	7.2	4.7	.5	0.67	1.36
1	19.738	-4.039	15.4	12.1	6.3	.6	0.60	-3.36
1	19.738	-4.039	14.2	8.7	7.1	.6	0.74	5.49
1	19.738	-4.039	12.2	8.9	6.8	.6	0.75	1.99
1	19.738	-4.039	6.2	5.5	2.8	.6	0.61	-6.51
1	19.738	-4.039	9.4	4.5	3.6	.4	0.67	9.00
1	19.738	-4.039	9.6	8.9	5.5	.5	0.71	-5.75
1	17.571	-4.537	17.2	15.8	8.5	.3	0.64	-6.86
1	17.571	-4.537	25.7	18.6	10.8	.6	0.62	-0.56
1	17.571	-4.537	32.5	12.6	11.9	.4	0.70	12.73
1	17.571	-4.537	25.6	15.9	12.1	.4	0.71	4.62
1	17.571	-4.537	12.8	10.3	5.2	.5	0.59	-4.21
1	17.571	-4.537	22.4	10.5	10.4	.5	0.77	10.59
1	17.571	-4.537	17.8	7.7	4.5	.3	0.53	10.26
1	17.571	-4.537	12.4	9.5	7.0	.5	0.75	0.66
1	17.571	-4.537	13.0	10.5	4.0	.6	0.49	-7.22
1	17.571	-4.537	8.5	6.1	4.0	.6	0.68	0.71
1	17.571	-4.537	6.2	5.6	4.8	.3	0.87	-0.92
1	17.571	-4.537	6.0	5.8	4.1	.7	0.78	-5.78
1	17.571	-4.537	13.9	7.9	4.3	.5	0.55	4.04
1	17.571	-4.537	14.3	11.2	5.5	.6	0.57	-3.84
1	15.470	-4.233	10.0	5.6	4.1	.5	0.67	5.99
1	15.470	-4.233	8.2	6.7	5.1	.7	0.78	-0.26
1	15.470	-4.233	11.7	10.3	7.4	.5	0.77	-2.76
1	15.470	-4.233	6.2	5.2	3.9	.5	0.78	-1.04
1	15.470	-4.233	5.2	4.5	2.1	.4	0.57	-6.79
1	15.470	-4.233	9.3	8.0	5.1	.6	0.70	-3.47
1	15.470	-4.233	11.1	8.5	6.4	.4	0.76	0.92
1	15.470	-4.233	8.1	7.9	4.1	.6	0.64	-8.89
1	15.470	-4.233	12.9	8.5	6.3	.5	0.71	3.41
1	15.470	-4.233	15.2	10.2	6.4	.4	0.64	1.62
1	15.470	-4.233	7.3	5.3	1.8	.3	0.44	-5.53
1	15.470	-4.233	14.8	11.5	7.0	.6	0.66	-1.63
1	15.470	-4.233	12.7	6.8	4.9	.6	0.65	6.65
1	15.470	-4.233	9.5	7.9	4.9	.5	0.68	-2.95
1	15.470	-4.233	19.5	9.9	5.9	.5	0.56	6.80
1	15.470	-4.233	9.0	7.7	2.9	.5	0.50	-8.90
1	15.470	-4.233	10.2	8.0	4.1	.5	0.59	-3.47
1	15.470	-4.233	5.6	4.8	3.0	.7	0.69	-3.59
1	15.470	-4.233	11.6	7.2	4.9	.6	0.66	3.71
1	15.470	-4.233	9.7	7.2	4.5	.6	0.66	-0.41
1	15.470	-4.233	5.2	4.5	2.1	.4	0.57	-6.79
1	15.470	-4.233	9.7	7.3	4.4	.6	0.65	-1.04
1	15.470	-4.233	9.1	5.7	5.6	.7	0.85	7.66
1	15.470	-4.233	27.4	13.2	10.3	.4	0.66	8.79
1	15.470	-4.233	11.9	9.6	5.3	.3	0.63	-3.40
1	15.470	-4.233	7.3	4.1	2.3	.6	0.56	4.44
1	15.470	-4.233	8.6	7.7	5.9	.5	0.81	-2.43
1	15.470	-4.233	11.5	8.6	5.1	.5	0.64	-1.06
1	14.458	-3.733	20.3	17.0	9.2	.5	0.63	-4.47
1	14.458	-3.733	9.7	6.1	4.1	.6	0.66	3.38
1	14.458	-3.733	9.7	6.1	3.9	.6	0.64	3.00
1	14.458	-3.733	12.0	8.5	6.6	.5	0.75	2.69
1	14.458	-3.733	10.1	7.6	5.1	.6	0.70	0.00
1	14.458	-3.733	12.0	9.3	5.2	.5	0.62	-2.38
1	14.458	-3.733	8.1	6.0	4.0	.5	0.69	0.25
1	14.458	-3.733	7.4	5.2	3.0	.5	0.62	0.00
1	14.458	-3.733	13.7	9.5	5.6	.5	0.62	0.45
1	14.458	-3.733	12.2	8.7	6.4	.5	0.73	1.97
1	14.561	-2.150	32.9	27.3	15.4	.6	0.64	-3.85

1	14.561	-2.150	6.4	5.1	3.1	.6	0.67	-2.19
1	14.561	-2.150	5.8	4.0	2.3	.4	0.61	0.36
1	14.561	-2.150	12.7	8.6	2.4	.4	0.38	-5.39
1	14.561	-2.150	12.9	9.8	7.1	.6	0.74	0.63
1	14.561	-2.150	8.4	7.4	6.3	.7	0.86	-0.32
1	14.561	-2.150	8.8	7.1	6.8	.5	0.90	4.53
1	14.561	-2.150	11.6	7.5	3.7	.5	0.54	0.60
1	14.561	-2.150	9.0	4.1	3.5	.4	0.69	10.05
1	14.561	-2.150	24.8	17.2	12.2	.5	0.70	2.10
1	14.561	-2.150	15.3	10.4	5.6	.5	0.58	0.14
1	15.501	-0.255	27.5	18.8	14.0	.5	0.72	2.84
1	15.501	-0.255	31.4	16.8	12.4	.6	0.66	6.80
1	15.501	-0.255	31.8	19.7	18.5	.6	0.82	7.04
1	15.501	-0.255	34.3	22.1	16.8	.5	0.72	4.03
1	15.501	-0.255	22.0	17.6	14.4	.4	0.81	1.21
1	15.501	-0.255	18.4	17.6	15.9	.7	0.92	-2.08
1	15.501	-0.255	24.3	17.4	15.7	.5	0.84	4.68
1	15.501	-0.255	9.4	5.0	4.1	.5	0.71	7.57
1	15.501	-0.255	18.1	8.5	6.3	.6	0.64	9.01
1	15.501	-0.255	8.6	6.7	3.8	.4	0.63	-2.36
1	15.501	-0.255	16.0	12.7	7.6	.5	0.66	-2.26
1	15.501	-0.255	10.1	6.4	3.6	.6	0.59	1.94
1	13.939	1.199	19.2	14.2	9.5	.5	0.69	0.31
1	13.939	1.199	8.5	6.1	4.0	.6	0.68	0.71
1	13.939	1.199	14.3	9.1	4.3	.5	0.52	0.67
1	15.402	3.382	22.5	16.9	13.7	.5	0.79	2.24
1	15.519	3.751	16.3	11.8	9.3	.6	0.77	2.50
1	15.519	3.751	11.0	8.0	6.3	.7	0.77	2.41
1	13.871	-1.015	7.4	6.0	5.5	.6	0.88	3.19
1	13.871	-1.015	13.0	8.0	5.5	.6	0.66	3.94
1	13.871	-1.015	22.4	10.5	10.4	.5	0.77	10.59
1	13.871	-1.015	35.0	18.8	17.2	.5	0.77	8.35
1	13.871	-1.015	7.4	4.8	2.7	.6	0.59	1.46
1	13.871	-1.015	17.9	15.8	15.3	.6	0.94	3.60
1	13.871	-1.015	33.7	19.1	18.8	.4	0.82	8.60
1	13.871	-1.015	29.6	13.6	12.6	.6	0.73	10.36
1	13.871	-1.015	27.5	13.0	10.0	.6	0.65	9.04
1	12.192	-1.718	28.1	14.3	12.6	.5	0.73	8.70
1	12.192	-1.718	28.7	13.0	12.7	.4	0.76	10.88
1	12.192	-1.718	29.7	22.2	19.9	.5	0.84	3.96
1	12.192	-1.718	40.0	17.0	14.5	.6	0.68	11.09
1	12.192	-1.718	8.0	5.3	2.3	.3	0.50	-0.92
1	12.192	-1.718	22.4	11.0	10.4	.5	0.76	9.69
1	12.192	-1.718	12.0	7.2	2.6	.6	0.43	0.49
1	12.192	-1.718	19.5	15.1	7.7	.6	0.59	-3.22
1	12.192	-1.718	10.4	7.2	6.3	.8	0.81	4.63
1	12.192	-1.718	8.4	6.0	2.7	.4	0.52	-2.46
1	12.192	-1.718	13.2	10.7	5.0	.6	0.56	-5.15
1	12.192	-1.718	6.7	3.2	2.7	.7	0.70	9.31
1	12.192	-1.718	8.0	8.0	6.7	.7	0.89	-5.97
1	12.192	-1.718	14.0	13.8	8.5	.5	0.72	-7.64
1	12.192	-1.718	8.1	6.7	4.5	.4	0.72	-2.00
1	12.192	-1.718	19.8	13.2	8.2	.4	0.64	1.67
1	12.192	-1.718	15.6	7.3	5.3	.5	0.63	9.00
1	12.192	-1.718	11.6	9.0	6.0	.6	0.70	-0.69
1	13.149	-2.686	28.4	20.0	10.3	.5	0.57	-0.99
1	13.149	-2.686	10.8	8.6	5.9	.6	0.72	-0.93
1	13.149	-2.686	22.5	13.9	17.3	.6	0.99	15.01
1	13.149	-2.686	9.5	7.7	3.3	.5	0.53	-6.04
1	13.149	-2.686	9.1	8.7	4.0	.4	0.59	-9.59
1	13.149	-2.686	10.5	8.2	8.2	.6	0.92	6.40
1	13.149	-2.686	10.7	6.4	6.4	.4	0.84	8.36
1	13.149	-2.686	10.4	8.7	6.2	.5	0.75	-1.60
1	13.149	-2.686	12.5	6.3	5.1	.3	0.69	8.28
1	13.149	-2.686	12.3	10.4	8.0	.8	0.79	-0.89
1	13.149	-2.686	18.7	13.9	10.5	.5	0.75	1.52

1	13.149	-2.686	12.3	10.2	4.7	.7	0.56	-5.85
1	13.149	-2.686	10.1	6.4	3.6	.6	0.59	1.94
1	13.149	-2.686	18.5	16.5	13.6	.5	0.85	-1.25
1	13.149	-2.686	9.6	8.3	7.4	.6	0.88	1.18
1	13.149	-2.686	13.7	9.4	7.9	.8	0.79	4.19
1	13.149	-2.686	11.1	5.3	3.6	.4	0.60	8.43
1	11.397	-4.431	12.8	10.3	5.2	.5	0.59	-4.21
1	11.397	-4.431	7.6	4.4	3.6	.2	0.73	6.33
1	11.397	-4.431	11.5	8.9	5.6	.4	0.67	-1.22
1	11.584	-4.506	11.7	6.5	6.0	.5	0.78	8.04
1	11.584	-4.506	6.3	4.7	3.1	.7	0.69	0.00
1	11.584	-4.506	17.4	11.5	7.6	.7	0.66	2.34
1	11.584	-4.506	7.1	4.8	3.4	.7	0.70	2.54
1	11.584	-4.506	10.5	6.8	6.3	.6	0.82	6.35
1	11.584	-4.506	6.4	5.5	4.2	.6	0.79	-1.39
1	11.584	-4.506	5.7	3.6	3.4	.5	0.83	6.92
1	11.584	-4.506	10.6	6.4	3.1	.5	0.52	2.05
1	11.584	-4.506	14.0	11.1	9.2	.5	0.82	1.59
1	11.584	-4.506	7.9	5.7	4.1	.8	0.72	1.52
1	11.584	-4.506	9.3	7.3	5.8	.7	0.79	1.15
1	11.584	-4.506	5.5	4.0	3.5	.8	0.82	3.93
1	11.584	-4.506	7.3	5.7	4.3	.8	0.76	0.57
1	11.584	-4.506	16.6	9.4	9.1	.6	0.81	8.39
1	11.584	-4.506	9.7	5.2	4.4	.7	0.73	7.70
1	11.584	-4.506	6.9	5.6	5.0	.5	0.86	2.54
1	11.584	-4.506	7.9	6.0	4.7	.6	0.78	1.58
1	11.584	-4.506	8.0	6.9	1.9	.4	0.40	-13.46
1	11.584	-4.506	3.3	3.1	1.4	.5	0.58	-9.30
1	11.584	-4.506	10.6	4.8	4.3	.5	0.71	10.37
1	11.584	-4.506	4.5	3.3	3.2	.7	0.88	5.95
1	11.803	-2.251	22.4	9.8	4.1	.2	0.42	10.30
1	11.803	-2.251	10.4	7.2	6.3	.8	0.81	4.63
1	11.803	-2.251	8.1	6.7	4.5	.4	0.72	-2.00
1	11.803	-2.251	7.0	5.7	4.8	.7	0.83	1.33
1	11.803	-2.251	16.2	10.4	9.4	.5	0.81	6.08
1	11.803	-2.251	19.5	15.1	7.7	.6	0.59	-3.22
1	11.803	-2.251	13.2	10.7	5.0	.6	0.56	-5.15
1	11.803	-2.251	12.0	7.2	2.6	.6	0.43	0.49
1	11.803	-2.251	8.4	6.0	2.7	.4	0.52	-2.46
1	11.803	-2.251	19.8	13.2	8.2	.4	0.64	1.67
1	11.803	-2.251	15.6	7.3	5.3	.5	0.63	9.00
1	11.803	-2.251	7.2	4.6	3.4	.6	0.70	3.90
1	11.803	-2.251	9.2	6.0	4.4	.5	0.71	3.48
1	11.803	-2.251	8.0	5.3	2.3	.3	0.50	-0.92
1	11.803	-2.251	14.0	13.8	8.5	.5	0.72	-7.64
1	11.803	-2.251	6.7	3.2	2.7	.7	0.70	9.31
1	11.803	-2.251	22.4	11.0	10.4	.5	0.76	9.69
1	11.803	-2.251	8.0	8.0	6.7	.7	0.89	-5.97
1	11.803	-2.251	28.1	14.2	12.6	.5	0.74	8.85
1	11.803	-2.251	28.7	13.0	12.7	.4	0.76	10.88
1	11.803	-2.251	29.7	22.2	19.9	.5	0.84	3.96
1	11.803	-2.251	40.0	17.0	14.5	.6	0.68	11.09
1	12.597	-0.383	17.5	13.1	9.8	.5	0.75	1.28
1	12.597	-0.383	27.5	13.0	10.0	.6	0.65	9.04
1	12.597	-0.383	7.4	6.0	5.5	.6	0.88	3.19
1	12.597	-0.383	18.4	17.6	15.9	.7	0.92	-2.08
1	12.597	-0.383	13.0	8.0	5.5	.6	0.66	3.94
1	12.597	-0.383	8.5	5.0	4.9	.5	0.83	8.19
1	12.597	-0.383	17.9	15.8	15.3	.6	0.94	3.60
1	12.597	-0.383	16.0	12.7	7.6	.5	0.66	-2.26
1	12.597	-0.383	22.0	17.6	14.4	.4	0.81	1.21
1	12.597	-0.383	22.4	10.5	10.4	.5	0.77	10.59
1	12.597	-0.383	18.0	16.0	9.0	.6	0.66	-5.56
1	12.597	-0.383	29.6	13.6	12.6	.6	0.73	10.36
1	11.394	0.279	24.6	10.0	9.8	.6	0.73	12.21
1	11.394	0.279	24.5	12.5	5.5	.5	0.46	5.86

1	11.394	0.279	14.0	12.5	9.4	.8	0.80	-2.59
1	11.394	0.279	13.2	8.9	5.2	.6	0.61	0.95
1	11.394	0.279	15.0	11.5	4.5	.6	0.49	-5.56
1	11.394	0.279	17.4	16.2	9.0	.5	0.66	-6.90
1	10.124	-1.306	4.4	4.3	2.7	.4	0.73	-7.19
1	10.124	-1.306	8.0	6.5	2.7	.4	0.52	-6.43
1	10.124	-1.306	9.5	7.8	5.1	.6	0.71	-2.12
1	10.124	-1.306	7.4	5.8	2.4	.3	0.51	-5.55
1	10.124	-1.306	12.7	8.3	6.2	.7	0.71	3.62
1	10.124	-1.306	12.3	9.6	5.5	.3	0.64	-2.30
1	10.124	-1.306	9.9	7.7	5.5	.5	0.73	0.00
1	10.124	-1.306	20.4	12.6	7.9	.4	0.62	3.20
1	10.124	-1.306	8.3	7.2	4.9	.5	0.74	-2.99
1	10.124	-1.306	13.2	11.5	7.9	.8	0.74	-2.99
1	10.124	-1.306	10.9	6.7	6.7	.6	0.85	8.13
1	10.124	-1.306	7.7	4.0	44.4	.4	4.00	-1.04
1	10.124	-1.306	7.7	7.1	4.0	.7	0.66	-6.50
1	10.124	-1.306	6.5	3.6	3.1	.5	0.74	7.40
1	10.124	-1.306	9.3	7.8	3.3	.6	0.53	-7.05
1	10.124	-1.306	10.4	7.5	6.0	.6	0.77	2.76
1	10.124	-1.306	7.8	5.7	4.5	.7	0.77	2.36
1	10.124	-1.306	27.9	14.9	14.8	.4	0.81	9.28
1	10.124	-1.306	18.9	14.7	13.2	.5	0.86	3.39
1	10.124	-1.306	9.2	6.1	3.9	.5	0.65	2.00
1	9.203	-3.420	9.8	7.3	4.3	.6	0.64	-1.04
1	9.203	-3.420	9.3	6.7	4.7	.5	0.71	1.29
1	9.203	-3.420	11.8	9.8	6.8	.7	0.74	-1.74
1	9.203	-3.420	5.9	5.2	3.0	.6	0.66	-5.09
1	9.203	-3.420	5.8	5.1	3.1	.5	0.69	-4.50
1	9.203	-3.420	3.6	2.0	1.6	.4	0.71	6.75
1	9.203	-3.420	8.4	5.7	4.3	.6	0.73	3.10
1	9.203	-3.420	9.8	6.0	4.7	.6	0.72	5.11
1	9.203	-3.420	10.7	10.3	7.3	.3	0.78	-5.60
1	9.203	-3.420	7.3	4.2	2.9	.5	0.65	5.15
1	9.203	-3.420	5.2	4.4	2.4	.5	0.63	-4.64
1	9.203	-3.420	10.9	7.5	3.5	.4	0.53	-1.26
1	9.203	-3.420	8.4	7.8	2.8	.4	0.49	-11.79
1	9.203	-3.420	5.8	5.1	3.1	.5	0.69	-4.50
1	9.203	-3.420	6.9	4.8	4.3	.5	0.82	4.94
1	9.203	-3.420	12.6	8.8	5.9	.3	0.68	1.43
1	9.203	-3.420	14.3	6.9	5.1	.4	0.64	8.53
1	9.203	-3.420	8.9	6.4	4.2	.6	0.68	0.68
1	10.072	-1.675	12.7	7.9	5.3	.5	0.65	3.56
1	10.072	-1.675	7.4	5.8	2.4	.3	0.51	-5.55
1	10.072	-1.675	9.4	7.2	7.0	.5	0.90	5.60
1	10.072	-1.675	7.7	7.1	4.0	.7	0.66	-6.50
1	10.072	-1.675	10.4	7.5	6.0	.6	0.77	2.76
1	10.072	-1.675	9.9	7.7	5.5	.5	0.73	0.00
1	10.072	-1.675	20.4	12.6	7.9	.4	0.62	3.20
1	10.072	-1.675	9.5	7.8	5.1	.6	0.71	-2.12
1	10.072	-1.675	10.3	9.8	7.4	.5	0.82	-4.56
1	10.072	-1.675	14.8	12.5	7.0	.4	0.64	-4.34
1	10.072	-1.675	7.8	5.7	4.5	.7	0.77	2.36
1	10.072	-1.675	13.2	11.5	7.9	.8	0.74	-2.99
1	10.072	-1.675	10.9	6.7	6.7	.6	0.85	8.13
1	10.072	-1.675	12.7	8.3	6.2	.7	0.71	3.62
1	10.072	-1.675	6.5	3.6	3.1	.5	0.74	7.40
1	10.072	-1.675	9.3	7.8	3.3	.6	0.53	-7.05
1	10.072	-1.675	12.3	9.6	5.5	.3	0.64	-2.30
1	10.072	-1.675	8.3	7.2	4.9	.5	0.74	-2.99
1	10.072	-1.675	8.0	6.5	2.7	.4	0.52	-6.43
1	10.072	-1.675	18.9	14.7	13.2	.5	0.86	3.39
1	10.072	-1.675	9.0	8.3	4.5	.5	0.65	-6.89
1	10.072	-1.675	10.6	6.7	5.8	.5	0.78	5.71
1	10.072	-1.675	9.0	8.3	4.5	.5	0.65	-6.89
1	10.072	-1.675	14.6	7.8	3.6	.4	0.48	4.79

1	10.072	-1.675	9.2	6.0	4.4	.5	0.71	3.48
1	10.072	-1.675	22.4	9.8	4.1	.2	0.42	10.30
1	10.072	-1.675	16.2	11.8	6.5	.7	0.60	-1.16
1	10.072	-1.675	7.6	5.2	3.0	.5	0.61	0.55
1	10.072	-1.675	4.4	4.3	2.7	.4	0.73	-7.19
1	10.072	-1.675	7.4	5.8	2.4	.3	0.51	-5.55
1	10.072	-1.675	28.1	14.3	12.6	.5	0.73	8.70
1	10.072	-1.675	27.9	14.9	14.8	.4	0.81	9.28
1	10.072	-1.675	6.5	3.8	2.7	.5	0.67	5.07
1	10.072	-1.675	9.6	9.6	3.1	.4	0.47	-15.48
1	10.072	-1.675	15.4	8.6	7.4	.6	0.74	7.28
1	10.072	-1.675	18.9	14.7	13.2	.5	0.86	3.39
1	10.072	-1.675	9.2	6.1	3.9	.5	0.65	2.00
1	7.946	1.986	12.7	12.2	10.4	.7	0.89	-3.45
1	7.946	1.986	10.5	8.7	5.7	.5	0.71	-2.30
1	7.946	1.986	8.3	6.1	3.8	.6	0.66	-0.24
1	7.946	1.986	13.8	11.8	8.4	.6	0.76	-2.13
1	7.946	1.986	8.4	4.7	3.1	.6	0.62	5.37
1	7.946	1.986	26.2	25.3	13.0	.5	0.63	-8.70
1	7.377	-1.859	15.9	8.1	8.0	.3	0.79	9.69
1	7.377	-1.859	27.7	22.5	14.3	.5	0.69	-2.17
1	7.377	-1.859	7.4	4.8	3.1	.5	0.65	2.50
1	7.377	-1.859	17.6	12.6	6.8	.6	0.59	-0.96
1	7.377	-1.859	14.6	9.3	6.0	.5	0.64	2.83
1	7.377	-1.859	6.0	2.9	2.1	.4	0.63	8.42
1	7.377	-1.859	8.0	6.5	3.0	.7	0.56	-5.33
1	7.377	-1.859	5.9	5.1	3.5	.6	0.74	-2.81
1	7.377	-1.859	6.7	4.2	3.0	.4	0.68	3.92
1	7.377	-1.859	7.7	7.6	3.9	.4	0.64	-9.35
1	7.377	-1.859	11.2	8.1	4.1	.5	0.57	-1.73
1	7.377	-1.859	7.4	7.0	3.2	.4	0.58	-9.36
1	7.377	-1.859	9.3	8.4	6.5	.6	0.81	-2.55
1	7.377	-1.859	6.7	5.8	4.6	.6	0.82	-1.04
1	7.377	-1.859	12.7	7.9	6.5	.5	0.75	5.36
1	7.377	-1.859	8.6	6.1	5.1	.6	0.79	3.61
1	7.377	-1.859	7.5	6.6	4.0	.6	0.69	-4.55
1	7.377	-1.859	10.3	6.5	5.0	.5	0.72	4.47
1	7.377	-1.859	9.1	5.2	2.6	.6	0.52	3.50
1	7.377	-1.859	11.1	8.7	4.6	.5	0.60	-3.16
1	7.377	-1.859	11.1	8.0	3.8	.5	0.55	-2.20
1	7.377	-1.859	7.8	5.7	3.3	.6	0.63	-0.79
1	7.080	1.747	26.2	25.3	13.0	.5	0.63	-8.70
1	7.080	1.747	8.3	6.1	3.8	.6	0.66	-0.24
1	7.080	1.747	8.4	4.7	3.1	.6	0.62	5.37
1	7.080	1.747	13.8	11.8	8.4	.6	0.76	-2.13
1	7.080	1.747	12.7	12.2	10.4	.7	0.89	-3.45
1	7.080	1.747	10.5	8.7	5.7	.5	0.71	-2.30
1	2.899	8.092	22.8	12.5	8.2	.7	0.62	5.71
1	1.182	2.756	13.4	6.5	3.0	.5	0.47	7.30
1	1.182	2.756	32.0	18.0	17.7	.6	0.82	8.66
1	3.978	0.408	8.5	5.8	4.0	.6	0.69	2.12
1	3.978	0.408	21.0	19.7	9.8	.6	0.61	-8.23
1	3.978	0.408	20.0	14.5	14.4	.7	0.89	6.70
1	4.592	-1.014	27.7	22.5	14.3	.5	0.69	-2.17
1	4.592	-1.014	31.0	18.0	6.5	.5	0.42	1.46
1	4.592	-1.014	26.0	18.1	11.0	.6	0.64	0.63
1	4.592	-1.014	11.2	8.0	7.0	.7	0.82	4.19
1	4.592	-1.014	12.6	7.6	6.2	.6	0.74	5.72
1	4.592	-1.014	18.2	8.7	4.8	.7	0.53	7.92
1	4.592	-1.014	8.4	6.8	4.2	.7	0.68	-2.38
1	4.592	-1.014	7.5	5.5	4.3	.5	0.77	2.18
1	4.592	-1.014	14.3	10.5	7.6	.6	0.73	1.26
1	4.592	-1.014	8.3	5.0	3.3	.5	0.64	4.02
1	4.592	-1.014	10.9	10.0	5.5	.8	0.65	-6.61
1	4.592	-1.014	14.0	7.5	3.8	.5	0.52	5.06
1	4.592	-1.014	11.4	7.5	3.0	.4	0.47	-1.36

1	14.601	-7.601	5.5	5.4	3.3	.6	0.72	-7.58
1	14.601	-7.601	14.6	10.0	5.5	.6	0.59	0.15
1	14.601	-7.601	9.0	8.8	3.4	.7	0.53	-12.29
1	14.601	-7.601	6.2	6.0	5.0	.6	0.88	-4.13
1	14.601	-7.601	7.2	5.6	4.0	.5	0.73	-0.00
1	14.601	-7.601	8.2	7.2	5.0	.6	0.75	-3.07
1	14.601	-7.601	8.6	5.3	4.5	.5	0.76	5.83
1	14.601	-7.601	8.0	7.6	7.2	.8	0.95	-0.00
1	14.601	-7.601	13.4	6.5	5.5	.6	0.70	9.10
1	14.601	-7.601	16.0	12.0	6.0	.3	0.57	-2.67
1	14.601	-7.601	9.5	7.1	2.3	.5	0.43	-6.88
1	4.186	-1.919	21.2	13.3	4.3	.4	0.40	-1.60
1	4.186	-1.919	11.4	7.5	3.0	.4	0.47	-1.36
1	4.186	-1.919	14.3	10.5	7.6	.6	0.73	1.26
1	4.186	-1.919	11.2	8.0	7.0	.7	0.82	4.19
1	4.186	-1.919	6.0	5.5	4.2	.8	0.81	-3.17
1	4.186	-1.919	8.3	5.0	3.3	.5	0.64	4.02
1	4.186	-1.919	7.0	4.2	2.9	.5	0.66	4.42
1	4.186	-1.919	7.4	5.3	4.2	.7	0.77	2.75
1	4.186	-1.919	8.4	6.8	4.2	.7	0.68	-2.38
1	4.186	-1.919	11.0	7.0	6.2	.6	0.79	5.91
1	4.186	-1.919	10.2	7.6	5.4	.6	0.72	0.79
1	4.186	-1.919	8.2	5.2	3.7	.6	0.68	3.69
1	4.186	-1.919	12.6	7.6	6.2	.6	0.74	5.72
1	4.186	-1.919	6.5	6.0	2.4	.5	0.53	-10.24
1	4.186	-1.919	5.0	3.0	2.5	.3	0.75	6.00
1	4.186	-1.919	8.1	7.5	7.4	.8	0.97	3.91
1	2.010	-1.121	11.6	10.7	7.9	.8	0.80	-3.77
1	2.010	-1.121	6.6	4.4	4.0	.5	0.82	5.71
1	2.010	-1.121	11.0	6.5	3.0	.6	0.50	2.29
1	2.010	-1.121	7.6	6.0	4.7	.6	0.79	0.84
1	2.010	-1.121	4.6	3.5	3.2	.6	0.86	4.11
1	2.010	-1.121	10.5	4.2	3.0	.6	0.59	11.90
1	2.010	-1.121	16.0	13.5	7.9	.5	0.66	-3.88
1	2.010	-1.121	5.8	4.5	3.0	.6	0.70	-0.69
1	2.010	-1.121	10.0	8.0	5.5	.7	0.72	-1.01
1	2.010	-1.121	11.6	10.7	7.9	.8	0.80	-3.77
1	2.010	-1.121	10.0	8.0	5.5	.7	0.72	-1.01
1	2.010	-1.121	7.1	4.7	3.2	.6	0.67	2.56
1	2.010	-1.121	8.9	7.4	6.0	.6	0.82	0.26
1	2.010	-1.121	10.5	10.4	8.0	.7	0.84	-6.04
1	1.505	-2.596	15.2	8.0	4.5	.4	0.55	5.84
1	1.505	-2.596	6.2	4.2	2.2	.6	0.57	0.00
1	1.505	-2.596	7.1	5.8	3.5	.6	0.67	-2.82
1	1.505	-2.596	7.0	5.5	3.3	.7	0.66	-2.01
1	1.505	-2.596	10.2	8.5	6.0	.7	0.75	-1.62
1	1.505	-2.596	5.2	5.0	2.2	.5	0.57	-10.24
1	1.505	-2.596	4.9	4.2	3.3	.6	0.81	-0.93
1	1.505	-2.596	7.0	4.8	3.8	.6	0.75	3.45
1	1.505	-2.596	10.9	6.7	2.9	.5	0.49	0.94
1	1.505	-2.596	8.0	4.5	2.8	.6	0.60	4.95
1	1.505	-2.596	6.8	5.2	2.8	.6	0.61	-2.43
1	1.505	-2.596	8.0	5.5	4.3	.5	0.75	3.27
1	5.008	-4.158	9.5	7.1	2.3	.5	0.43	-6.88
1	5.008	-4.158	8.2	7.2	5.0	.6	0.75	-3.07
0								

2	4.476	-2.005	16.6	16.2	7.0	.4	0.57	-10.87
2	4.476	-2.005	31.0	18.0	6.5	.5	0.42	1.46
2	5.749	-2.343	10.9	10.0	5.5	.8	0.65	-6.61
2	5.749	-2.343	14.6	10.0	5.0	.6	0.56	-0.61
2	16.663	-4.017	29.8	15.1	14.0	.6	0.76	9.16
2	29.951	-3.590	15.2	10.3	5.8	.6	0.60	0.56
2	29.951	-3.590	6.0	5.3	4.1	.8	0.81	-1.93
2	29.951	-3.590	6.1	5.0	4.0	.7	0.81	0.36
2	26.838	1.436	20.4	12.6	7.9	.4	0.62	3.20
2	28.758	8.727	14.2	7.0	6.6	.3	0.76	9.63
2	28.758	8.727	8.9	7.9	3.0	.7	0.50	-9.81
2	28.758	8.727	17.9	11.3	10.3	.7	0.81	6.40
2	35.045	5.554	23.6	18.0	16.1	.4	0.85	3.62
2	35.045	5.554	14.8	9.2	5.9	.6	0.63	3.24
2	34.923	1.696	19.1	14.2	10.0	.6	0.72	0.73
2	34.923	1.696	20.5	15.2	11.4	.5	0.75	1.48
2	36.205	-0.231	28.7	13.0	12.7	.4	0.76	10.88
2	36.205	-0.231	22.0	16.7	10.6	.4	0.67	-0.73
2	36.205	-0.231	14.1	12.2	8.3	.7	0.74	-2.93
2	36.205	-0.231	8.0	7.1	6.8	.5	0.93	2.94
2	36.771	-2.495	15.3	12.1	6.4	.7	0.60	-3.36
2	36.771	-2.495	10.6	8.4	4.0	.7	0.56	-4.42
2	36.771	-2.495	11.8	10.0	5.8	.5	0.66	-4.07
2	46.202	-2.799	15.6	7.3	5.3	.5	0.63	9.00
2	46.202	-2.799	11.9	7.5	3.2	.7	0.49	0.21
2	47.292	0.218	12.7	8.0	7.3	.6	0.81	6.44
2	47.292	0.218	11.5	7.3	3.5	.7	0.53	0.82
2	48.920	1.596	7.0	4.5	4.5	.6	0.86	7.78
2	48.920	1.596	12.4	6.8	6.0	.6	0.75	7.75
2	46.191	8.386	11.4	9.5	4.5	.4	0.57	-5.69
2	52.264	0.791	22.4	10.5	10.5	.4	0.78	10.67
2	52.264	0.791	15.3	11.0	8.1	.4	0.73	1.84
2	52.264	0.791	32.3	18.2	15.8	.4	0.75	7.25
2	52.264	0.791	7.0	4.5	3.1	.7	0.67	3.18
2	27.601	-0.080	34.0	18.5	16.3	.6	0.75	7.84
2	27.601	-0.080	10.2	7.6	4.3	.3	0.62	-1.41
2	27.601	-0.080	6.2	6.5	3.0	.4	0.55	-4.73
2	27.601	-0.080	16.5	12.5	3.0	.2	0.35	-11.20
2	27.601	-0.080	19.6	9.7	6.1	.6	0.58	7.50
2	27.601	-0.080	9.4	7.8	6.3	.6	0.81	0.24
2	55.404	-0.117	19.4	16.1	8.8	.5	0.63	-4.16
2	55.404	-0.117	14.9	11.5	7.0	.6	0.66	-1.48
2	55.404	-0.117	9.0	6.0	4.5	.5	0.72	3.33
2	58.966	0.686	16.8	14.0	9.4	.6	0.72	-2.17
2	58.966	0.686	13.6	9.6	7.7	.8	0.77	3.14
2	58.966	0.686	29.6	14.5	13.6	.6	0.76	9.66
2	58.966	0.686	15.1	11.0	7.3	.5	0.68	0.53
2	58.966	0.686	14.0	7.4	5.3	.5	0.65	6.83
2	58.966	0.686	13.0	9.0	9.5	.7	0.92	8.80
2	57.133	2.577	8.8	5.5	5.1	.6	0.81	6.76
2	57.133	2.577	31.0	27.8	15.5	.6	0.65	-5.87
2	61.245	7.409	21.1	16.0	12.9	.6	0.79	1.99
2	61.189	9.188	24.0	17.4	7.4	.4	0.51	-3.32
2	63.585	12.409	13.5	9.5	6.6	.5	0.70	1.63
2	30.399	-9.914	13.2	11.5	7.7	.9	0.73	-3.27
2	69.014	13.457	18.3	16.4	13.6	.5	0.85	-1.29
2	67.953	9.793	13.9	8.8	5.4	.4	0.62	2.57
2	67.953	9.793	18.2	15.4	8.7	.5	0.65	-4.29
2	78.550	7.157	11.8	10.2	10.1	.7	0.95	5.15
2	78.550	7.157	19.5	15.2	8.1	.7	0.60	-2.96
2	78.550	7.157	21.3	14.7	14.1	.3	0.86	6.29
2	66.271	5.782	11.7	8.9	3.0	.3	0.44	-6.95
2	68.836	1.609	10.5	7.2	4.0	.5	0.60	0.20
2	68.836	1.609	7.9	6.0	3.8	.5	0.67	-0.76
2	68.836	1.609	10.6	8.4	4.0	.7	0.56	-4.42
2	65.059	0.433	11.2	9.3	4.9	.6	0.61	-4.54

2	65.059	0.483	19.4	6.9	6.3	.7	0.67	13.99
2	63.510	-0.147	7.8	6.8	6.4	.6	0.92	2.61
2	63.510	-0.147	10.4	9.7	5.0	.6	0.63	-7.70
2	75.148	-1.519	25.6	15.9	12.1	.4	0.71	4.62
2	33.983	5.286	19.2	9.9	9.2	.7	0.76	8.97
2	33.983	5.286	16.3	11.1	9.4	.7	0.79	4.40
2	33.983	5.286	11.5	6.3	4.6	.6	0.66	6.34
2	74.633	2.930	16.8	9.7	9.0	.7	0.79	7.66
2	74.633	2.930	13.0	6.7	4.8	.6	0.64	7.27
2	76.751	6.266	9.6	5.1	3.5	.5	0.63	6.52
2	80.096	5.802	18.8	14.6	12.1	.7	0.81	1.97
2	82.399	6.637	19.8	14.2	13.1	.6	0.85	5.08
2	82.399	6.637	11.8	5.6	5.3	.3	0.75	10.10
2	84.529	11.105	8.2	7.2	6.4	.6	0.89	0.71
2	84.529	11.105	12.0	11.0	5.3	.4	0.60	-7.94
2	84.529	11.105	15.7	12.5	9.5	.8	0.77	0.27
2	84.529	11.105	22.1	17.6	13.1	.7	0.76	0.00
2	45.815	6.678	16.5	14.2	13.4	.6	0.92	2.98
2	67.483	18.506	23.9	12.8	9.1	.4	0.65	6.57
2	91.816	16.445	8.3	6.6	4.9	.4	0.76	-0.00
2	94.849	8.211	20.3	17.4	9.4	.5	0.63	-5.05
2	92.997	5.476	19.2	9.9	9.2	.7	0.76	8.97
2	92.997	5.476	11.8	10.2	10.1	.7	0.95	5.15
2	104.893	3.075	13.5	11.2	10.1	.6	0.88	2.36
2	104.893	3.075	15.7	13.8	4.8	.3	0.47	-10.65
2	106.761	5.826	12.0	11.0	5.3	.4	0.60	-7.94
2	97.486	11.340	24.4	12.1	10.1	.3	0.70	8.70
2	100.969	12.866	19.9	18.7	14.9	.4	0.84	-3.47
2	119.327	10.621	12.3	9.1	7.6	.6	0.80	2.93
2	119.327	10.621	11.0	7.8	5.0	.6	0.66	0.73
2	119.327	10.621	16.4	12.2	9.0	.6	0.74	1.23
2	109.389	20.252	21.4	18.3	13.8	.6	0.79	-1.43
2	3.051	12.098	30.5	20.4	9.0	.6	0.51	-1.02
2	3.051	12.098	10.3	8.1	6.5	.7	0.80	1.25
2	2.107	17.540	23.7	17.5	14.2	.6	0.79	2.55
2	2.107	17.540	30.5	19.1	16.8	.5	0.79	6.03
2	6.956	12.217	26.8	16.1	13.3	.5	0.74	5.90
2	11.746	25.091	31.0	15.3	11.8	.5	0.66	8.35
2	22.190	24.467	11.2	8.6	5.4	.7	0.67	-1.07
2	38.691	1.478	18.2	15.4	8.7	.5	0.65	-4.29
2	38.691	1.478	7.8	4.3	13.3	.5	1.74	-6.66
2	38.691	1.478	16.9	14.0	11.5	.6	0.82	0.54
2	38.691	1.478	7.5	6.9	4.5	.7	0.73	-5.00
2	38.691	1.478	22.5	15.9	14.4	.6	0.83	4.92
2	44.840	7.602	30.1	22.2	20.4	.5	0.85	4.64
2	44.840	7.602	14.5	42.5	8.8	.7	0.50	-89.18
2	44.840	7.602	18.9	13.3	13.2	.6	0.89	6.91
2	44.840	7.602	28.8	17.5	15.4	.6	0.78	6.42
2	47.618	9.054	39.9	20.6	17.6	.6	0.72	8.29
2	47.618	9.054	10.5	9.1	5.3	.6	0.66	-4.57
2	49.724	0.567	28.9	17.1	14.9	.5	0.77	6.65
2	64.618	2.880	35.0	24.0	14.5	.4	0.63	0.88
2	64.618	2.880	30.5	12.5	11.4	.5	0.70	11.84
2	64.618	2.880	35.6	20.6	18.6	.6	0.78	7.32
2	64.618	2.880	21.0	16.6	10.5	.7	0.68	-1.62
2	64.618	2.880	27.3	14.0	10.4	.6	0.66	7.53
2	64.618	2.880	32.5	20.4	14.1	.6	0.67	3.63
2	64.618	2.880	35.0	21.9	17.1	.5	0.73	4.75
2	72.974	1.136	40.0	21.3	15.1	.6	0.64	6.65
2	108.260	16.316	27.1	22.6	17.9	.5	0.81	-0.16
0								

3	118.035	4.291	13.8	8.4	7.4	.7	0.78	6.41
3	113.800	9.241	12.3	9.1	7.6	.6	0.80	2.93
3	113.800	9.241	11.0	7.8	5.0	.6	0.66	0.73
3	113.800	9.241	16.4	12.2	9.0	.6	0.74	1.23
3	107.555	4.534	9.8	5.6	4.8	.4	0.75	6.94
3	103.426	2.955	12.4	9.5	7.5	.7	0.78	1.52
3	101.845	0.857	13.5	11.2	10.1	.6	0.88	2.36
3	97.598	2.260	15.7	13.8	4.8	.3	0.47	-10.65
3	100.497	20.478	23.6	16.8	14.1	.5	0.79	3.61
3	98.188	18.708	16.8	8.4	8.1	.7	0.77	9.66
3	96.539	9.332	24.4	12.1	10.1	.3	0.70	8.70
3	96.539	9.332	19.9	18.7	14.9	.4	0.84	-3.47
3	98.162	4.412	32.5	20.4	14.1	.6	0.67	3.63
3	96.532	5.111	32.2	19.3	15.6	.4	0.73	5.72
3	96.532	5.111	20.3	17.4	9.4	.5	0.63	-5.05
3	96.723	1.604	10.1	5.5	3.9	.6	0.65	6.27
3	86.883	0.817	16.5	14.2	13.4	.6	0.92	2.98
3	83.884	4.006	35.4	19.5	15.0	.6	0.69	6.59
3	83.884	4.006	11.8	5.6	5.3	.3	0.75	10.10
3	77.843	7.244	17.4	12.8	9.8	.6	0.76	1.87
3	77.843	7.244	19.8	14.2	13.1	.6	0.85	5.08
3	75.811	9.829	20.7	17.5	15.2	.6	0.86	1.11
3	72.746	12.338	12.2	8.0	4.9	.7	0.63	1.88
3	72.746	12.338	19.2	14.1	11.1	.7	0.77	2.24
3	72.746	12.338	28.9	17.1	14.9	.5	0.77	6.65
3	75.905	4.333	18.8	14.6	12.1	.7	0.81	1.97
3	75.905	4.333	9.6	5.1	3.5	.5	0.63	6.52
3	75.905	4.333	24.5	17.2	13.8	.6	0.77	3.24
3	74.946	0.496	16.8	9.7	9.0	.7	0.79	7.66
3	74.946	0.496	13.0	6.7	4.8	.6	0.64	7.27
3	71.044	3.741	12.2	8.0	4.9	.7	0.63	1.88
3	71.044	3.741	19.2	9.9	9.2	.7	0.76	8.97
3	71.044	3.741	16.3	11.1	9.4	.7	0.79	4.40
3	71.044	3.741	11.5	6.3	4.6	.6	0.66	6.34
3	72.514	6.767	13.2	12.1	7.6	.6	0.71	-5.27
3	70.695	8.489	28.8	17.5	15.4	.6	0.78	6.42
3	70.695	8.489	18.3	16.4	13.6	.5	0.85	-1.29
3	66.334	12.436	13.2	11.5	7.7	.9	0.73	-3.27
3	66.334	12.436	22.6	18.4	17.5	.5	0.90	4.18
3	66.334	12.436	15.0	7.7	6.4	.7	0.71	8.18
3	32.059	9.110	23.9	12.8	9.1	.4	0.65	6.57
3	62.388	5.334	11.7	8.9	3.0	.3	0.44	-6.95
3	67.441	0.651	7.9	6.0	3.8	.5	0.67	-0.76
3	67.441	0.651	9.8	8.7	4.9	.6	0.66	-5.51
3	67.441	0.651	9.1	5.8	3.2	.6	0.58	1.69
3	67.082	-1.049	9.8	8.7	4.9	.6	0.66	-5.51
3	67.082	-1.049	11.2	9.3	4.9	.6	0.61	-4.54
3	67.082	-1.049	10.4	6.9	6.3	.7	0.82	5.84
3	67.082	-1.049	25.6	15.9	12.1	.4	0.71	4.62
3	58.246	7.206	8.6	6.8	5.1	.7	0.76	0.24
3	58.246	7.206	7.6	5.6	4.4	.7	0.77	2.16
3	58.441	1.121	8.7	7.8	4.5	.6	0.67	-5.52
3	58.476	0.506	16.8	14.0	9.4	.6	0.72	-2.17
3	58.476	0.506	13.6	9.6	7.7	.8	0.77	3.14
3	58.476	0.506	29.6	14.5	13.6	.6	0.76	9.66
3	58.476	0.506	15.1	11.0	7.3	.5	0.68	0.53
3	58.476	0.506	14.1	7.4	5.3	.5	0.65	6.95
3	58.476	0.506	13.0	9.9	9.5	.7	0.89	5.28
3	55.396	1.821	8.8	5.5	5.1	.6	0.81	6.76
3	55.396	1.821	31.0	27.8	15.5	.6	0.65	-5.87
3	54.516	-0.446	14.9	11.5	7.0	.6	0.66	-1.48
3	54.516	-0.446	9.0	6.0	4.5	.5	0.72	3.33
3	54.516	-0.446	19.4	16.1	8.8	.5	0.63	-4.16
3	52.236	-2.125	9.4	7.8	6.3	.6	0.81	0.24
3	52.236	-2.125	34.0	18.5	16.3	.6	0.75	7.84
3	52.236	-2.125	19.6	9.7	6.1	.6	0.58	7.50

3	52.236	-2.125	16.5	12.5	3.3	.2	0.38	-9.85
3	52.236	-2.125	8.2	6.5	3.0	.4	0.55	-4.73
3	52.236	-2.125	10.2	7.6	4.3	.3	0.62	-1.41
3	52.995	0.113	32.3	18.2	15.8	.4	0.75	7.25
3	52.995	0.113	7.0	4.5	3.1	.7	0.67	3.18
3	52.995	0.113	15.3	11.0	8.1	.4	0.73	1.84
3	52.995	0.113	22.4	10.5	10.5	.4	0.78	10.67
3	51.636	4.538	34.0	21.0	11.8	.6	0.58	2.47
3	51.636	4.538	9.8	5.8	5.2	.7	0.78	6.96
3	50.016	12.588	19.5	16.6	10.4	.6	0.69	-3.40
3	48.523	-2.210	10.8	6.0	3.4	.5	0.56	4.72
3	47.014	-0.509	6.7	4.0	3.0	.5	0.70	5.13
3	47.014	-0.509	12.4	6.8	6.0	.6	0.75	7.75
3	47.014	-0.509	12.7	8.0	7.3	.6	0.81	6.44
3	47.014	-0.509	11.5	7.3	3.5	.7	0.53	0.82
3	43.965	-3.405	11.9	7.5	3.2	.7	0.49	0.21
3	43.965	-3.405	15.6	7.3	5.3	.5	0.63	9.00
3	36.919	-3.413	11.8	10.0	5.8	.5	0.66	-4.07
3	36.919	-3.413	15.3	12.1	6.4	.7	0.60	-3.36
3	36.919	-3.413	10.6	8.4	4.0	.7	0.56	-4.42
3	40.526	2.889	13.2	10.0	6.2	.7	0.66	-0.91
3	36.209	-0.675	5.4	5.4	2.5	.7	0.60	-10.80
3	36.209	-0.675	19.1	14.2	10.0	.6	0.72	0.73
3	36.209	-0.675	14.1	12.2	8.3	.7	0.74	-2.93
3	36.209	-0.675	22.0	16.7	10.6	.4	0.67	-0.73
3	36.209	-0.675	9.0	4.1	3.5	.4	0.69	10.05
3	36.209	-0.675	15.9	8.1	8.0	.3	0.79	9.69
3	33.461	1.069	8.9	7.9	3.0	.7	0.50	-9.81
3	34.188	3.968	35.0	18.0	16.2	.7	0.75	8.73
3	34.188	3.968	23.6	18.0	16.1	.4	0.85	3.62
3	32.983	-1.931	9.5	7.8	5.8	.6	0.77	-0.66
3	30.835	-3.821	6.1	5.0	4.0	.7	0.81	0.36
3	30.835	-3.821	8.9	7.9	3.0	.7	0.50	-9.81
3	30.835	-3.821	15.2	10.2	5.8	.6	0.60	0.84
3	29.705	-0.539	5.0	4.2	2.1	.5	0.59	-5.34
3	29.343	2.558	20.4	12.6	7.9	.4	0.62	3.20
3	26.988	4.313	11.3	8.5	3.4	.3	0.49	-4.84
3	21.285	0.578	14.2	7.0	6.6	.3	0.76	9.63
3	16.996	-4.350	9.8	15.1	14.0	.6	1.10	5.33
3	14.049	6.430	10.9	6.7	2.9	.5	0.49	0.94
3	8.929	-3.839	5.8	5.1	3.1	.5	0.69	-4.50
3	8.929	-3.839	6.2	4.2	2.2	.6	0.57	0.00
3	8.929	-3.839	6.8	5.2	2.8	.6	0.61	-2.43
3	8.929	-3.839	6.8	6.4	4.5	.8	0.77	-4.93
3	8.929	-3.839	6.8	4.8	2.2	.7	0.53	-2.02
3	8.929	-3.839	13.5	10.8	5.4	.3	0.58	-4.17
3	5.956	-3.700	14.6	10.0	5.5	.6	0.59	0.15
3	5.956	-3.700	31.0	18.0	6.5	.5	0.42	1.46
3	5.956	-3.700	15.2	8.0	4.5	.4	0.55	5.84
3	5.956	-3.700	9.0	8.8	3.4	.7	0.53	-12.29
3	5.956	-3.700	16.6	16.2	7.0	.4	0.57	-10.87
3	5.956	-3.700	4.9	4.2	3.3	.6	0.81	-0.93
3	5.956	-3.700	8.0	5.5	4.3	.5	0.75	3.27
3	5.956	-3.700	7.6	6.0	4.7	.6	0.79	0.84
3	68.818	7.073	4.5	3.5	2.2	.5	0.67	-1.33
3	57.949	13.024	35.0	19.0	13.0	.5	0.63	6.12
3	64.383	12.138	16.4	9.5	9.4	.4	0.83	8.47
3	70.152	14.582	24.0	20.5	16.5	.5	0.82	-0.48
3	70.152	14.582	39.9	20.6	17.6	.6	0.72	8.29
3	83.088	13.856	40.0	21.3	15.1	.6	0.64	6.65
3	139.222	11.541	27.1	22.6	17.9	.5	0.81	-0.16
0								

4	118.514	6.357	13.8	8.4	7.4	.7	0.78	6.41
4	114.718	11.242	12.3	9.1	7.6	.6	0.80	2.93
4	114.718	11.242	11.0	7.8	5.0	.6	0.66	0.73
4	114.718	11.242	16.4	12.2	9.0	.6	0.74	1.23
4	103.394	5.384	12.4	9.5	7.5	.7	0.78	1.52
4	99.239	3.995	15.7	13.8	4.8	.3	0.47	-10.65
4	106.608	2.005	10.1	5.5	3.9	.6	0.65	6.27
4	95.307	7.089	20.3	17.4	9.4	.5	0.63	-5.05
4	95.307	7.089	32.2	19.3	15.6	.4	0.73	5.72
4	95.451	11.632	19.9	18.7	14.9	.4	0.84	-3.47
4	95.451	11.632	24.4	12.1	10.1	.3	0.70	8.70
4	95.400	15.234	32.5	20.4	14.1	.6	0.67	3.63
4	95.400	15.234	34.0	22.9	16.5	.6	0.70	2.77
4	95.051	20.799	20.7	17.5	15.2	.6	0.86	1.11
4	95.051	20.799	20.8	16.2	9.8	.6	0.66	-1.74
4	88.801	17.672	27.1	14.1	14.0	.5	0.80	9.53
4	88.801	17.672	19.8	12.6	9.1	.5	0.69	3.76
4	92.314	12.387	35.6	20.6	18.6	.6	0.78	7.32
4	87.811	10.907	11.9	9.4	4.4	.5	0.56	-4.51
4	86.763	1.612	16.5	14.2	13.4	.6	0.92	2.98
4	82.042	5.948	35.4	19.5	15.0	.6	0.69	6.59
4	82.042	5.948	11.8	5.6	5.3	.3	0.75	10.10
4	81.505	8.541	22.9	14.8	13.2	.5	0.80	5.81
4	81.505	8.541	27.1	15.6	12.2	.6	0.71	6.04
4	81.505	8.541	16.5	12.5	10.7	.5	0.82	2.92
4	81.505	8.541	12.6	9.0	5.0	.4	0.60	-0.66
4	78.732	7.705	19.8	14.2	13.1	.6	0.85	5.08
4	78.732	7.705	17.4	12.8	9.8	.6	0.76	1.87
4	78.732	7.705	13.8	12.5	10.7	.5	0.87	-1.04
4	78.732	7.705	15.1	10.8	7.3	.4	0.69	1.06
4	78.732	7.705	9.6	4.8	2.8	.5	0.55	7.06
4	76.012	14.054	13.2	11.5	7.7	.9	0.73	-3.27
4	76.012	14.054	20.7	17.5	15.2	.6	0.86	1.11
4	76.012	14.054	18.9	13.3	13.2	.6	0.89	6.91
4	76.012	14.054	35.0	19.0	13.0	.5	0.63	6.12
4	76.012	14.054	27.2	17.3	14.5	.6	0.76	5.24
4	73.636	2.961	16.8	9.7	9.0	.7	0.79	7.66
4	73.636	2.961	13.0	6.7	4.8	.6	0.64	7.27
4	75.538	6.419	9.6	5.1	3.5	.5	0.63	6.52
4	75.538	6.419	18.8	14.6	12.1	.7	0.81	1.97
4	75.538	6.419	24.5	17.2	13.8	.6	0.77	3.24
4	70.937	5.655	19.2	9.9	9.2	.7	0.76	8.97
4	70.937	5.655	11.5	6.3	4.6	.6	0.66	6.34
4	68.300	8.158	19.5	15.2	8.1	.7	0.60	-2.96
4	68.300	8.158	21.3	14.7	14.1	.3	0.86	6.29
4	68.300	8.158	31.5	17.2	13.2	.5	0.69	6.72
4	69.020	14.499	28.8	17.5	15.4	.6	0.78	6.42
4	69.839	18.827	27.2	18.4	9.3	.5	0.56	-0.25
4	66.450	2.459	7.9	6.0	3.8	.5	0.67	-0.76
4	66.450	2.459	9.1	5.8	3.2	.6	0.58	1.69
4	64.959	0.500	9.8	8.7	4.9	.6	0.66	-5.51
4	64.959	0.500	11.2	9.3	4.9	.6	0.61	-4.54
4	64.959	0.500	10.4	6.9	6.3	.7	0.82	5.84
4	64.959	0.500	25.6	15.9	12.1	.4	0.71	4.62
4	64.034	-0.465	10.4	9.7	5.0	.6	0.63	-7.70
4	58.164	0.726	13.6	9.6	7.7	.8	0.77	3.14
4	58.164	0.726	14.0	7.4	5.3	.5	0.65	6.83
4	58.164	0.726	13.0	9.9	9.5	.7	0.89	5.28
4	58.164	0.726	17.1	11.5	5.9	.5	0.56	-0.00
4	58.164	0.726	17.1	11.5	5.9	.5	0.64	2.62
4	58.164	0.726	11.8	7.6	4.9	.5	0.64	2.62
4	57.756	3.380	16.8	14.0	9.4	.6	0.72	-2.17
4	57.756	3.380	29.6	14.5	13.6	.6	0.76	9.66
4	55.004	5.519	34.0	21.0	11.8	.6	0.58	2.47
4	55.004	5.519	8.2	7.3	4.5	.5	0.70	-4.68
4	55.004	5.519	16.1	12.0	6.5	.7	0.60	-1.81
4	55.004	5.519	31.0	27.8	15.5	.6	0.65	-5.37

4	61.855	11.449	11.8	9.6	6.4	.6	0.71	-1.71
4	57.430	15.094	9.1	7.8	5.5	.7	0.75	-2.30
4	57.430	15.094	10.6	7.3	7.0	.6	0.86	6.31
4	54.485	9.616	11.2	9.6	7.5	.6	0.81	-1.01
4	51.751	16.822	18.9	16.6	12.4	.4	0.79	-2.23
4	51.751	16.822	16.2	10.8	7.6	.6	0.70	2.97
4	50.689	13.780	10.1	7.4	5.2	.5	0.71	0.99
4	50.934	8.808	16.0	7.4	7.1	.5	0.75	10.51
4	54.703	-0.076	14.9	11.5	7.0	.6	0.66	-1.48
4	54.703	-0.076	19.4	16.1	8.8	.5	0.63	-4.16
4	54.703	-0.076	9.0	6.0	4.5	.5	0.72	3.33
4	52.331	-1.222	34.0	18.5	16.3	.6	0.75	7.84
4	52.331	-1.222	19.6	9.7	6.1	.6	0.58	7.50
4	52.331	-1.222	16.5	12.5	3.3	.2	0.38	-9.85
4	52.331	-1.222	8.2	6.5	3.0	.4	0.55	-4.73
4	52.331	-1.222	10.2	7.6	4.3	.3	0.62	-1.41
4	52.331	-1.222	9.4	7.8	6.3	.6	0.81	0.24
4	51.438	1.273	32.3	18.2	15.8	.4	0.75	7.25
4	51.438	1.273	15.3	11.0	8.1	.4	0.73	1.84
4	51.438	1.273	7.0	4.5	3.1	.7	0.67	3.18
4	51.438	1.273	22.4	10.5	10.5	.4	0.78	10.67
4	47.017	-0.673	10.8	6.0	3.4	.5	0.56	4.72
4	47.017	-0.673	12.4	6.8	6.0	.6	0.75	7.75
4	45.969	3.420	22.8	21.5	10.8	.6	0.62	-8.27
4	44.948	7.566	26.5	24.0	11.0	.6	0.58	-8.16
4	43.994	-2.717	15.6	7.3	5.3	.5	0.63	9.00
4	43.994	-2.717	11.9	7.5	3.2	.7	0.49	0.21
4	36.182	-2.189	15.3	12.1	6.4	.7	0.60	-3.36
4	36.182	-2.189	11.8	10.0	5.8	.5	0.66	-4.07
4	36.182	-2.189	0.6	8.4	4.0	.7	1.47	2.69
4	34.589	0.416	19.1	14.2	10.0	.6	0.72	0.73
4	34.589	0.416	14.1	12.2	8.3	.7	0.74	-2.93
4	34.589	0.416	28.7	13.0	12.7	.4	0.76	10.88
4	34.589	0.416	13.2	10.0	6.2	.7	0.66	-0.91
4	34.589	0.416	22.0	16.7	10.6	.4	0.67	-0.73
4	37.305	3.070	23.6	18.0	16.1	.4	0.85	3.62
4	37.305	3.070	8.4	4.6	3.6	.5	0.69	6.81
4	34.370	4.783	36.0	17.6	14.3	.7	0.69	8.76
4	27.798	1.960	20.4	12.6	7.9	.4	0.62	3.20
4	27.798	1.960	23.7	17.5	14.2	.6	0.79	2.55
4	16.532	-3.681	29.8	15.1	14.0	.6	0.76	9.16
4	8.496	-3.827	5.8	5.1	3.1	.5	0.69	-4.50
4	8.496	-3.827	6.2	4.2	2.2	.6	0.57	0.00
4	8.496	-3.827	6.8	6.4	4.5	.8	0.77	-4.93
4	8.496	-3.827	6.8	4.8	2.2	.7	0.53	-2.02
4	8.496	-3.827	13.5	10.8	5.4	.3	0.58	-4.17
4	5.110	-2.966	31.0	18.0	6.5	.5	0.42	1.46
4	5.110	-2.966	8.6	5.3	4.5	.5	0.76	5.83
4	5.110	-2.966	14.6	10.0	5.5	.6	0.59	0.15
4	5.110	-2.966	9.0	8.8	3.4	.7	0.53	-12.29
4	5.110	-2.966	16.6	16.2	7.0	.4	0.57	-10.87
4	2.046	-2.197	15.2	8.0	4.5	.4	0.55	5.84
4	2.046	-2.197	4.9	4.2	3.3	.6	0.81	-0.93
4	2.046	-2.197	8.0	5.5	4.3	.5	0.75	3.27
4	2.046	-2.197	7.6	6.0	4.7	.6	0.79	0.84
4	13.524	6.703	25.0	12.8	12.0	.5	0.77	9.13
4	16.580	3.299	26.8	16.1	13.3	.5	0.74	5.90
4	20.506	16.073	11.8	7.8	7.8	.5	0.87	7.56
4	17.179	17.539	30.5	20.4	9.0	.6	0.51	-1.02
4	17.179	17.539	9.0	4.8	3.8	.4	0.69	7.29
4	18.980	22.702	12.8	11.8	4.0	.5	0.47	-12.36
4	13.826	23.949	9.5	7.5	6.1	.6	0.81	1.37
4	13.826	23.949	10.7	8.8	5.6	.8	0.69	-2.44
4	13.826	23.949	7.7	6.3	4.1	.5	0.70	-2.09
4	11.746	17.791	10.4	8.0	6.3	.7	0.78	1.41
4	[illegible]	[illegible]	31.0	15.3	11.8	.6	0.66	[illegible]

4	28.768	24.861	26.4	19.8	8.4	.6	0.51	-4.19
4	48.892	5.093	32.0	20.2	11.5	.6	0.59	2.10
4	71.644	17.201	8.4	6.9	4.8	.5	0.74	-1.46
4	71.235	16.614	25.0	13.2	11.2	.5	0.72	7.93
4	71.235	16.614	12.3	8.6	7.2	.7	0.79	3.85
4	76.065	14.485	14.8	6.0	5.2	.8	0.67	11.86
4	78.078	7.843	39.9	20.6	17.6	.6	0.72	8.29
4	82.563	17.660	22.1	17.6	13.1	.7	0.76	0.00
4	82.563	17.660	28.8	17.8	13.2	.6	0.70	4.48
4	82.563	17.660	37.2	14.5	13.0	.6	0.68	12.53
4	94.093	15.665	23.6	16.8	14.1	.5	0.79	3.61
4	59.023	18.105	19.1	12.4	8.4	.7	0.67	2.87
4	114.424	15.445	28.4	14.7	10.1	.6	0.63	6.99
4	142.542	5.336	27.1	22.6	17.9	.5	0.81	-0.16
0								

5	118.053	6.222	13.8	8.4	7.4	.7	0.78	6.41
5	114.521	10.200	12.3	9.1	7.6	.6	0.80	2.93
5	114.521	10.200	11.0	7.8	5.0	.6	0.66	0.73
5	114.521	10.200	16.4	12.2	9.0	.6	0.74	1.23
5	211.374	0.390	20.9	12.4	11.6	.6	0.80	7.46
5	104.169	4.137	12.4	9.5	7.5	.7	0.78	1.52
5	99.467	2.872	15.7	13.8	4.8	.3	0.47	-10.65
5	94.750	6.501	20.3	17.4	9.4	.5	0.63	-5.05
5	94.750	6.501	32.2	19.3	15.6	.4	0.73	5.72
5	95.424	9.866	19.9	18.7	14.9	.4	0.84	-3.47
5	95.424	9.866	24.4	12.1	10.1	.3	0.70	8.70
5	96.687	14.179	34.0	22.9	16.5	.6	0.70	2.77
5	96.687	14.179	32.5	20.4	14.1	.6	0.67	3.63
5	95.874	19.817	20.8	16.2	9.8	.6	0.66	-1.74
5	89.766	19.195	28.8	17.8	13.2	.6	0.70	4.48
5	92.647	11.139	35.6	20.6	18.6	.6	0.78	7.32
5	92.647	11.139	19.9	18.7	14.9	.4	0.84	-3.47
5	86.826	12.799	11.9	9.4	4.4	.5	0.56	-4.51
5	84.793	9.204	8.4	6.9	4.8	.5	0.74	-1.46
5	87.794	1.385	16.5	14.2	13.4	.6	0.92	2.98
5	47.798	7.902	35.4	19.5	15.0	.6	0.69	6.59
5	47.798	7.902	11.8	5.6	5.3	.3	0.75	10.10
5	81.471	8.694	22.9	14.8	13.2	.5	0.80	5.81
5	81.471	8.694	27.1	15.6	12.2	.6	0.71	6.04
5	81.471	8.694	16.5	12.5	10.7	.5	0.82	2.92
5	81.471	8.694	12.6	9.0	5.0	.4	0.60	-0.66
5	78.609	8.291	13.8	12.5	10.7	.5	0.87	-1.04
5	78.609	8.291	15.1	10.8	7.3	.4	0.69	1.06
5	78.609	8.291	9.6	4.8	2.8	.5	0.55	7.06
5	78.609	8.291	17.4	12.8	9.8	.6	0.76	1.87
5	79.689	5.862	19.8	14.2	13.1	.6	0.85	5.08
5	77.438	13.137	13.2	11.5	7.7	.9	0.73	-3.27
5	77.438	13.137	20.7	17.5	15.2	.6	0.86	1.11
5	76.733	15.635	35.0	19.0	13.0	.5	0.63	6.12
5	76.733	15.635	18.9	13.3	13.2	.6	0.89	6.91
5	79.711	17.726	13.1	6.8	5.0	.6	0.65	7.28
5	75.341	13.644	27.2	18.4	9.3	.5	0.56	-0.25
5	73.311	12.045	28.8	17.5	15.4	.6	0.78	6.42
5	76.299	5.501	9.6	5.1	3.5	.5	0.63	6.52
5	76.299	5.501	18.8	14.6	12.1	.7	0.81	1.97
5	76.299	5.501	24.5	17.2	13.8	.6	0.77	3.24
5	74.899	3.151	16.8	9.7	9.0	.7	0.79	7.66
5	74.899	3.151	13.0	6.7	4.8	.6	0.64	7.27
5	70.843	5.032	12.2	8.0	4.9	.7	0.63	1.88
5	70.843	5.032	19.2	9.9	9.2	.7	0.76	8.97
5	70.843	5.032	11.5	6.3	4.6	.6	0.66	6.34
5	70.843	5.032	16.3	11.1	9.4	.7	0.79	4.40
5	62.495	15.585	23.9	12.8	9.1	.4	0.65	6.57
5	68.925	7.490	31.5	17.2	13.2	.5	0.69	6.72
5	68.925	7.490	19.5	15.2	8.1	.7	0.60	-2.96
5	68.925	7.490	21.3	14.7	14.1	.3	0.86	6.29
5	68.925	7.490	11.8	10.2	10.1	.7	0.95	5.15
5	65.847	1.617	7.9	6.0	3.8	.5	0.67	-0.76
5	65.847	1.617	9.8	8.7	4.9	.6	0.66	-5.51
5	65.847	1.617	9.1	5.8	3.2	.6	0.58	1.69
5	67.811	-0.129	25.6	15.9	12.1	.4	0.71	4.62
5	66.074	0.306	11.7	8.9	3.0	.3	0.44	-6.95
5	66.074	0.306	11.2	9.3	4.9	.6	0.61	-4.54
5	66.074	0.306	10.4	6.9	6.3	.7	0.82	5.84
5	63.325	-0.336	10.4	9.7	5.0	.6	0.63	-7.70
5	60.617	1.087	16.8	14.0	9.4	.6	0.72	-2.17
5	60.617	1.087	29.6	14.5	13.6	.6	0.76	9.66
5	60.617	1.087	17.1	11.5	5.9	.5	0.56	-0.00
5	58.576	0.501	14.0	7.4	5.3	.5	0.65	6.83
5	58.576	0.501	13.0	9.9	9.5	.7	0.89	5.28
5	58.576	0.501	32.3	18.2	15.8	.4	0.75	7.25

5	58.576	0.501	13.6	9.6	7.7	.8	0.77	3.14
5	49.431	5.337	20.4	12.6	7.9	.4	0.62	3.20
5	49.431	5.337	11.8	7.8	7.8	.5	0.87	7.56
5	50.708	1.738	19.4	16.1	8.3	.5	0.63	-4.16
5	51.606	-0.175	22.4	10.5	10.5	.4	0.78	10.67
5	51.606	-0.175	7.0	4.5	3.1	.7	0.67	3.18
5	51.606	-0.175	15.3	11.0	8.1	.4	0.73	1.84
5	51.606	-0.175	17.4	11.5	7.6	.7	0.66	2.34
5	51.606	-0.175	14.9	11.5	7.0	.6	0.66	-1.48
5	51.606	-0.175	9.0	6.0	4.5	.5	0.72	3.33
5	53.038	-2.018	34.0	18.5	16.3	.6	0.75	7.84
5	53.038	-2.018	19.6	9.7	6.1	.6	0.58	7.50
5	53.038	-2.018	16.5	12.5	3.3	.2	0.38	-9.85
5	53.038	-2.018	10.2	7.6	4.3	.3	0.62	-1.41
5	53.038	-2.018	9.4	7.8	6.3	.6	0.81	0.24
5	42.831	15.091	9.1	5.7	5.6	.7	0.85	7.66
5	41.024	5.303	8.4	4.6	3.6	.5	0.69	6.81
5	36.991	-1.998	15.3	12.1	6.4	.7	0.60	-3.36
5	36.991	-1.998	10.6	8.4	4.0	.7	0.56	-4.42
5	36.397	0.144	15.9	8.1	8.0	.3	0.79	9.69
5	30.389	-3.222	15.2	10.3	5.8	.6	0.60	0.56
5	30.389	-3.222	6.0	5.3	4.1	.8	0.81	-1.93
5	30.389	-3.222	6.1	5.0	4.0	.7	0.81	0.36
5	29.205	-0.521	9.7	6.1	4.1	.6	0.66	3.38
5	21.986	-1.140	10.2	7.6	5.4	.6	0.72	0.79
5	17.488	-0.859	29.8	15.1	14.0	.6	0.76	9.16
5	8.606	-3.297	6.8	6.4	4.5	.8	0.77	-4.93
5	8.606	-3.297	6.8	4.8	2.2	.7	0.53	-2.02
5	8.606	-3.297	13.5	10.8	5.4	.3	0.58	-4.17
5	8.606	-3.297	5.8	5.1	3.1	.5	0.69	-4.50
5	8.606	-3.297	6.2	4.2	2.2	.6	0.57	0.00
5	5.212	-2.990	8.6	5.3	4.5	.5	0.76	5.83
5	5.212	-2.990	9.0	8.8	3.4	.7	0.53	-12.29
5	5.212	-2.990	14.6	10.0	5.5	.6	0.59	0.15
5	5.212	-2.990	7.6	6.0	4.7	.6	0.79	0.84
5	5.212	-2.990	31.0	18.0	6.5	.5	0.42	1.46
5	5.212	-2.990	16.6	16.2	7.0	.4	0.57	-10.87
5	5.212	-2.990	6.2	6.0	5.0	.6	0.88	-4.13
5	1.798	-1.739	4.9	4.2	3.3	.6	0.81	-0.93
5	1.798	-1.739	8.0	5.5	4.3	.5	0.75	3.27
5	1.798	-1.739	15.2	8.0	4.5	.4	0.55	5.84
5	13.382	22.493	9.5	7.5	6.1	.6	0.81	1.37
5	13.382	22.493	10.7	8.8	5.6	.8	0.69	-2.44
5	13.382	22.493	7.7	6.3	4.1	.5	0.70	-2.09
5	19.372	15.788	9.1	7.9	5.9	.8	0.79	-1.93
5	23.495	27.915	31.0	15.3	11.8	.5	0.66	8.35
5	32.805	9.655	9.1	5.7	5.6	.7	0.85	7.66
5	43.864	8.111	32.0	20.2	11.5	.6	0.59	2.10
5	64.337	12.333	19.2	14.1	11.1	.7	0.77	2.24
5	75.614	16.070	27.1	14.1	14.0	.5	0.80	9.53
5	75.614	16.070	7.6	5.6	4.4	.7	0.77	2.16
5	84.830	8.617	35.0	24.0	14.5	.4	0.63	0.86
5	84.830	8.617	22.1	17.6	13.1	.7	0.76	0.00
5	84.830	8.617	40.0	21.3	15.1	.6	0.64	6.65
5	95.729	14.071	23.6	16.8	14.1	.5	0.79	3.61
5	107.758	16.348	19.1	12.4	8.4	.7	0.67	2.87
5	145.196	-3.180	27.1	22.6	17.9	.5	0.81	-0.16
0								

6	109.563	18.320	16.4	12.2	9.0	.6	0.74	1.23
6	96.683	21.677	13.8	8.4	7.4	.7	0.78	6.41
6	99.402	23.527	20.9	12.4	11.6	.6	0.80	7.46
6	106.009	18.682	19.1	12.4	8.4	.7	0.67	2.87
6	98.050	5.853	13.5	11.2	10.1	.6	0.88	2.36
6	98.050	5.853	15.7	13.8	4.8	.3	0.47	-10.65
6	94.433	13.541	24.4	12.1	10.1	.3	0.70	8.70
6	94.433	13.541	19.9	18.7	14.9	.4	0.84	-3.47
6	94.433	13.541	32.2	19.3	15.6	.4	0.73	5.72
6	94.832	18.577	32.5	20.4	14.1	.6	0.67	3.63
6	94.832	18.577	34.0	22.9	16.5	.6	0.70	2.77
6	97.192	18.785	20.7	17.5	15.2	.6	0.86	1.11
6	89.079	22.570	28.8	17.8	13.2	.6	0.70	4.48
6	89.947	15.543	35.6	20.6	18.6	.6	0.78	7.32
6	91.541	11.623	20.3	17.4	9.4	.5	0.63	-5.05
6	94.235	6.598	10.1	5.5	3.9	.6	0.65	6.27
6	92.174	5.633	8.3	6.6	4.9	.4	0.76	-0.00
6	82.575	22.759	13.1	6.8	5.0	.6	0.65	7.28
6	79.075	17.571	35.0	19.0	13.0	.5	0.63	6.12
6	76.591	17.998	13.2	11.5	7.7	.9	0.73	-3.27
6	76.591	17.998	20.7	17.5	15.2	.6	0.86	1.11
6	79.952	14.662	16.5	12.5	10.7	.5	0.82	2.92
6	79.952	14.662	27.1	15.6	12.2	.6	0.71	6.04
6	80.317	11.486	11.9	9.4	4.4	.5	0.56	-4.51
6	80.317	11.486	22.9	14.8	13.2	.5	0.80	5.81
6	82.212	8.455	11.8	5.6	5.3	.3	0.75	10.10
6	82.212	8.455	35.4	19.5	15.0	.6	0.69	6.59
6	85.424	4.791	16.5	14.2	13.4	.6	0.92	2.98
6	78.672	7.998	19.8	14.2	13.1	.6	0.85	5.08
6	78.145	10.345	8.4	6.9	4.8	.5	0.74	-1.46
6	78.145	10.345	13.8	12.5	10.7	.5	0.87	-1.04
6	78.145	10.345	15.1	10.8	7.3	.4	0.69	1.06
6	78.145	10.345	17.4	12.8	9.8	.6	0.76	1.87
6	75.144	16.364	27.2	17.3	14.5	.6	0.76	5.24
6	75.144	16.364	27.2	18.4	9.3	.5	0.56	-0.25
6	72.967	19.173	28.8	17.5	15.4	.6	0.78	6.42
6	75.479	8.202	24.5	17.2	13.8	.6	0.77	3.24
6	75.479	8.202	18.8	14.6	12.1	.7	0.81	1.97
6	75.479	8.202	9.6	5.1	3.5	.5	0.63	6.52
6	56.973	6.411	13.3	11.6	7.2	.5	0.70	-4.09
6	34.181	4.699	16.8	9.7	9.0	.7	0.79	7.66
6	34.181	4.699	13.0	6.7	4.8	.6	0.64	7.27
6	71.048	6.151	16.3	11.1	9.4	.7	0.79	4.40
6	71.048	6.151	19.2	9.9	9.2	.7	0.76	8.97
6	71.048	6.151	11.5	6.3	4.6	.6	0.66	6.34
6	71.048	6.151	12.2	8.0	4.9	.7	0.63	1.88
6	68.317	9.028	19.5	15.2	8.1	.7	0.60	-2.96
6	68.317	9.028	21.3	14.7	14.1	.3	0.86	6.29
6	68.317	9.028	11.8	10.2	10.1	.7	0.95	5.15
6	63.041	13.703	18.3	16.4	13.6	.5	0.85	-1.29
6	31.770	2.331	25.6	15.9	12.1	.4	0.71	4.62
6	31.770	2.331	9.8	8.7	4.9	.6	0.66	-5.51
6	31.770	2.331	11.2	9.3	4.9	.6	0.61	-4.54
6	31.770	2.331	10.4	6.9	6.3	.7	0.82	5.84
6	63.834	0.801	10.4	9.7	5.0	.6	0.63	-7.70
6	58.213	1.538	17.1	11.5	5.9	.5	0.56	-0.00
6	58.213	1.538	14.0	7.4	5.3	.5	0.65	6.83
6	58.213	1.538	13.0	9.9	9.5	.7	0.89	5.28
6	58.213	1.538	13.6	9.6	7.7	.8	0.77	3.14
6	58.213	1.538	16.2	11.8	6.5	.7	0.60	-1.16
6	59.008	5.463	16.8	14.0	9.4	.6	0.72	-2.17
6	59.008	5.463	29.6	14.5	13.6	.6	0.76	9.66
6	53.819	9.438	18.9	16.6	12.4	.4	0.79	-2.23
6	54.616	1.553	14.9	11.5	7.0	.6	0.66	-1.48
6	54.616	1.553	9.0	6.0	4.5	.5	0.72	3.33
6	52.424	-0.772	9.4	7.8	6.3	.6	0.81	0.24

6	52.424	-0.772	19.6	9.7	6.1	.6	0.58	7.50
6	52.424	-0.772	34.0	18.5	16.3	.6	0.75	7.84
6	52.424	-0.772	16.5	12.5	3.3	.2	0.38	-9.85
6	52.424	-0.772	10.2	7.6	4.3	.3	0.62	-1.41
6	50.583	2.096	32.3	18.2	15.8	.4	0.75	7.25
6	50.583	2.096	7.0	4.5	3.1	.7	0.67	3.18
6	50.583	2.096	15.3	11.0	8.1	.4	0.73	1.84
6	50.583	2.096	22.4	10.5	10.5	.4	0.78	10.67
6	50.583	2.096	19.4	16.1	8.8	.5	0.63	-4.16
6	42.015	-1.261	11.9	7.5	3.2	.7	0.49	0.21
6	42.015	-1.261	15.6	7.3	5.3	.5	0.63	9.00
6	36.740	1.423	15.9	8.1	8.0	.3	0.79	9.69
6	36.740	1.423	19.1	14.2	10.0	.6	0.72	0.73
6	36.602	-1.521	10.6	8.4	4.0	.7	0.56	-4.42
6	36.602	-1.521	15.3	12.1	6.4	.7	0.60	-3.36
6	33.562	3.373	9.1	7.9	5.9	.8	0.79	-1.93
6	33.326	1.652	20.4	12.6	7.9	.4	0.62	3.20
6	33.326	1.652	9.5	7.8	5.8	.6	0.77	-0.66
6	29.955	-2.275	15.2	10.3	5.8	.6	0.60	0.56
6	29.955	-2.275	6.0	5.3	4.1	.8	0.81	-1.93
6	29.955	-2.275	6.1	5.0	4.0	.7	0.81	0.36
6	29.003	-0.160	9.7	6.1	4.1	.6	0.66	3.38
6	21.396	-0.766	10.2	7.6	5.4	.6	0.72	0.79
6	16.654	-3.587	29.8	15.1	14.0	.6	0.76	9.16
6	7.984	-2.649	13.5	10.8	5.4	.3	0.58	-4.17
6	7.984	-2.649	22.4	10.5	10.5	.4	0.78	10.67
6	7.984	-2.649	20.8	16.2	9.8	.6	0.66	-1.74
6	7.984	-2.649	22.8	12.5	8.2	.7	0.62	5.71
6	3.875	-1.874	12.3	9.0	3.3	.4	0.46	-4.97
6	3.875	-1.874	14.6	10.0	5.5	.6	0.59	0.15
6	3.875	-1.874	9.0	8.8	3.4	.7	0.53	-12.29
6	3.875	-1.874	16.6	16.2	7.0	.4	0.57	-10.87
6	3.875	-1.874	8.6	5.3	4.5	.5	0.76	5.83
6	3.875	-1.874	6.2	6.0	5.0	.6	0.88	-4.13
6	3.875	-1.874	31.0	18.0	6.5	.5	0.42	1.46
6	1.472	-1.636	8.0	5.5	4.3	.5	0.75	3.27
6	1.472	-1.636	4.9	4.2	3.3	.6	0.81	-0.93
6	8.437	17.217	10.4	8.0	6.3	.7	0.78	1.41
6	11.781	23.790	9.5	7.5	6.1	.6	0.81	1.37
6	11.781	23.790	10.7	8.8	5.6	.8	0.69	-2.44
6	11.781	23.790	7.7	6.3	4.1	.5	0.70	-2.09
6	14.641	20.896	30.5	19.1	16.8	.5	0.79	6.03
6	20.226	29.660	31.0	15.3	11.8	.5	0.66	8.35
6	62.911	7.520	19.2	14.1	11.1	.7	0.77	2.24
6	70.027	11.124	18.9	13.3	13.2	.6	0.89	6.91
6	70.604	5.698	25.0	13.2	11.2	.5	0.72	7.93
6	75.451	7.053	27.1	14.1	14.0	.5	0.80	9.53
6	79.227	-1.933	39.9	20.6	17.6	.6	0.72	8.29
6	83.319	-2.273	37.2	14.5	13.0	.6	0.68	12.53
6	86.149	0.237	40.0	21.3	15.1	.6	0.64	6.65
6	86.149	0.237	35.0	24.0	14.5	.4	0.63	0.88
6	85.395	4.448	22.1	17.6	13.1	.7	0.76	0.00
6	79.012	10.508	19.8	12.6	9.1	.5	0.69	3.76
6	79.012	10.508	12.3	8.6	7.2	.7	0.79	3.85
6	97.068	4.247	23.6	16.8	14.1	.5	0.79	3.61
6	145.608	-13.302	27.1	22.6	17.9	.5	0.81	-0.16
0								

7	52.465	0.784	34.0	18.5	16.3	.6	0.75	7.84
7	52.465	0.784	19.6	9.7	6.1	.6	0.58	7.50
7	52.025	5.383	16.5	12.5	3.3	.2	0.38	-9.85
7	52.465	0.784	10.2	7.6	4.3	.3	0.62	-1.41
7	52.465	0.784	9.4	7.8	6.3	.6	0.81	0.24
7	52.059	3.449	19.4	16.1	8.8	.5	0.63	-4.16
7	52.059	3.449	22.4	10.5	10.5	.4	0.78	10.67
7	52.059	3.449	32.3	18.2	15.8	.4	0.75	7.25
7	52.059	3.449	7.0	4.5	3.1	.7	0.67	3.18
7	52.059	3.449	15.3	11.0	8.1	.4	0.73	1.84
7	44.910	-0.387	11.9	7.5	3.2	.7	0.49	0.21
7	44.910	-0.387	15.6	7.3	5.3	.5	0.63	9.00
7	38.820	4.603	12.3	8.6	7.2	.7	0.79	3.85
7	34.281	4.710	9.1	7.9	5.9	.8	0.79	-1.93
7	37.305	1.954	29.7	22.2	19.9	.5	0.84	3.96
7	37.305	1.954	19.1	14.2	10.0	.6	0.72	0.73
7	37.206	-0.326	15.3	12.1	6.4	.7	0.60	-3.36
7	37.206	-0.326	10.6	8.4	4.0	.7	0.56	-4.42
7	33.733	1.545	9.5	7.8	5.8	.6	0.77	-0.66
7	29.187	0.499	9.7	6.1	4.1	.6	0.66	3.38
7	29.983	-1.701	15.2	10.2	5.8	.6	0.60	0.84
7	29.983	-1.701	6.0	5.3	4.1	.8	0.81	-1.93
7	29.983	-1.701	6.1	5.0	4.0	.7	0.81	0.36
7	22.202	-0.262	10.2	7.6	5.4	.6	0.72	0.79
7	17.192	-2.873	29.8	15.1	14.0	.6	0.76	9.16
7	8.821	-2.661	6.2	4.2	2.2	.6	0.57	0.00
7	8.821	-2.661	6.3	6.4	4.5	.8	0.77	-4.93
7	8.821	-2.661	6.8	4.8	2.2	.7	0.53	-2.02
7	8.821	-2.661	13.5	10.8	5.4	.3	0.58	-4.17
7	6.415	-3.294	8.6	5.3	4.5	.5	0.76	5.83
7	6.415	-3.294	6.2	6.0	5.0	.6	0.88	-4.13
7	6.552	-3.012	31.0	18.0	6.5	.5	0.42	1.46
7	6.552	-3.012	14.6	10.0	5.5	.6	0.59	0.15
7	6.552	-3.012	9.0	8.8	3.4	.7	0.53	-12.29
7	6.552	-3.012	16.6	16.2	7.0	.4	0.57	-10.87
7	6.552	-3.012	12.3	9.0	3.3	.4	0.46	-4.97
7	2.128	-1.665	15.2	8.0	4.5	.4	0.55	5.84
7	2.128	-1.665	4.9	4.2	3.3	.6	0.81	-0.93
7	2.128	-1.665	8.0	5.5	4.3	.5	0.75	3.27
7	11.746	24.791	7.7	6.3	4.1	.5	0.70	-2.09
7	11.746	24.791	9.5	7.5	6.1	.6	0.81	1.37
7	11.746	24.791	10.7	8.8	5.6	.8	0.69	-2.44
7	21.564	30.960	31.0	15.3	11.8	.5	0.66	8.35
7	65.442	0.386	16.4	9.5	9.4	.4	0.83	8.47
7	68.548	8.121	16.5	14.2	13.4	.6	0.92	2.98
7	72.896	4.905	25.0	13.2	11.2	.5	0.72	7.93
7	80.070	0.558	13.1	6.8	5.0	.6	0.65	7.28
7	79.341	-2.199	39.9	20.6	17.6	.6	0.72	8.29
7	83.970	-2.967	37.2	14.5	13.0	.6	0.68	12.53
7	87.526	-1.451	7.6	5.6	4.4	.7	0.77	2.16
7	87.526	-1.451	40.0	21.3	15.1	.6	0.64	6.65
7	87.526	-1.451	35.0	24.0	14.5	.4	0.63	0.88
7	86.240	3.481	22.1	17.6	13.1	.7	0.76	0.00
7	98.101	5.077	23.6	16.8	14.1	.5	0.79	3.61
7	148.353	-14.510	27.1	22.6	17.9	.5	0.81	-0.16

0

7	109.721	1.403	9.8	5.6	4.8	.4	0.75	6.94
7	102.535	10.782	12.4	9.5	7.5	.7	0.78	1.52
7	107.094	22.013	13.8	8.4	7.4	.7	0.78	6.41
7	107.094	22.013	19.1	12.4	8.4	.7	0.67	2.87
7	101.155	26.539	20.9	12.4	11.6	.6	0.80	7.46
7	95.824	23.246	20.7	17.5	15.2	.6	0.86	1.11
7	93.801	21.595	32.5	20.4	14.1	.6	0.67	3.63
7	93.801	21.595	34.0	22.9	16.5	.6	0.70	2.77
7	93.726	15.934	19.9	18.7	14.9	.4	0.84	-3.47
7	93.726	15.934	24.4	12.1	10.1	.3	0.70	8.70
7	93.726	15.934	32.2	19.3	15.6	.4	0.73	5.72
7	100.227	8.319	13.5	11.2	10.1	.6	0.88	2.36
7	100.227	8.319	15.7	13.8	4.8	.3	0.47	-10.65
7	90.335	8.600	10.1	5.5	3.9	.6	0.65	6.27
7	90.162	11.286	20.3	17.4	9.4	.5	0.63	-5.05
7	88.577	18.370	35.6	20.6	18.6	.6	0.78	7.32
7	88.721	22.213	27.3	14.0	10.4	.6	0.66	7.53
7	78.231	19.554	13.2	11.5	7.7	.9	0.73	-3.27
7	78.231	19.554	20.7	17.5	15.2	.6	0.86	1.11
7	78.231	19.554	35.0	19.0	13.0	.5	0.63	6.12
7	78.807	15.903	11.9	9.4	4.4	.5	0.56	-4.51
7	78.807	15.903	27.1	15.6	12.2	.6	0.71	6.04
7	78.807	15.903	16.5	12.5	10.7	.5	0.82	2.92
7	79.980	13.154	22.9	14.8	13.2	.5	0.80	5.81
7	81.657	10.018	35.4	19.5	15.0	.6	0.69	6.59
7	81.657	10.018	11.8	5.6	5.3	.3	0.75	10.10
7	78.656	11.464	13.0	6.7	4.8	.6	0.64	7.27
7	78.656	11.464	17.4	12.8	9.8	.6	0.76	1.87
7	78.656	11.464	15.1	10.8	7.3	.4	0.69	1.06
7	77.399	13.284	13.8	12.5	10.7	.5	0.87	-1.04
7	77.399	13.284	8.4	6.9	4.8	.5	0.74	-1.46
7	74.837	17.662	27.2	17.3	14.5	.6	0.76	5.24
7	74.837	17.662	27.2	18.4	9.3	.5	0.56	-0.25
7	65.107	22.078	28.8	17.5	15.4	.6	0.78	6.42
7	74.746	10.186	9.6	5.1	3.5	.5	0.63	6.52
7	74.746	10.186	21.3	14.7	14.1	.3	0.86	6.29
7	74.746	10.186	24.5	17.2	13.8	.6	0.77	3.24
7	74.076	6.327	13.3	11.6	7.2	.5	0.70	-4.09
7	74.076	6.327	16.8	9.7	9.0	.7	0.79	7.66
7	74.076	6.327	13.0	6.7	4.8	.6	0.64	7.27
7	70.568	8.627	12.2	8.0	4.9	.7	0.63	1.88
7	70.568	8.627	19.2	9.9	9.2	.7	0.76	8.97
7	70.568	8.627	16.3	11.1	9.4	.7	0.79	4.40
7	70.568	8.627	11.5	6.3	4.6	.6	0.66	6.34
7	71.101	11.855	13.2	12.1	7.6	.6	0.71	-5.27
7	68.088	10.914	11.8	10.2	10.1	.7	0.95	5.15
7	68.088	10.914	19.5	15.2	8.1	.7	0.60	-2.96
7	68.088	10.914	21.3	14.7	14.1	.3	0.86	6.29
7	62.685	16.566	18.3	16.4	13.6	.5	0.85	-1.29
7	62.685	16.566	31.5	17.2	13.2	.5	0.69	6.72
7	64.746	6.039	7.9	6.0	3.8	.5	0.67	-0.76
7	64.746	6.039	9.8	8.7	4.9	.6	0.66	-5.51
7	64.746	6.039	9.1	5.8	3.2	.6	0.58	1.69
7	65.033	3.466	25.6	15.9	12.1	.4	0.71	4.62
7	65.033	3.466	7.9	6.0	3.8	.5	0.67	-0.76
7	65.033	3.466	9.8	8.7	4.9	.6	0.66	-5.51
7	65.033	3.466	12.4	6.8	6.0	.6	0.75	7.75
7	63.708	2.953	10.4	9.7	5.0	.6	0.63	-7.70
7	58.610	6.809	16.8	14.0	9.4	.6	0.72	-2.17
7	58.610	6.809	29.6	14.5	13.6	.6	0.76	9.66
7	58.256	3.379	13.6	9.6	7.7	.8	0.77	3.14
7	58.256	3.379	14.0	7.4	5.3	.5	0.65	6.83
7	58.256	3.379	13.0	9.9	9.5	.7	0.89	5.28
7	58.256	3.379	32.3	18.2	15.8	.4	0.75	7.25
7	54.335	2.610	14.9	11.5	7.0	.6	0.66	-1.48
7	54.335	2.610	9.0	6.0	4.5	.5	0.72	3.33

8	4.623	28.080	7.6	9.0	4.7	.6	0.69	-15.89
8	13.722	22.957	5.5	4.8	1.6	.1	0.46	-11.02
8	13.722	22.957	7.0	6.0	3.9	.8	0.71	-3.18
8	13.722	22.957	9.5	7.5	6.1	.6	0.81	1.37
8	13.722	22.957	13.7	8.8	5.6	.8	0.64	2.57
8	17.689	20.863	30.5	19.1	16.8	.5	0.79	6.03
8	20.472	21.905	12.8	11.8	4.0	.5	0.47	-12.36
8	23.582	29.312	31.0	15.3	11.8	.5	0.66	8.35
8	30.533	2.886	9.5	9.1	3.1	.4	0.48	-13.41
8	35.672	37.657	10.4	6.9	6.3	.7	0.82	5.84
8	63.885	1.651	24.7	16.3	12.0	.6	0.71	3.32
8	64.501	4.288	23.1	11.9	9.5	.2	0.69	7.87
8	69.016	4.013	20.0	11.6	10.2	.5	0.77	7.00
8	67.482	6.736	19.2	14.1	11.1	.7	0.77	2.24
8	71.704	5.634	20.1	19.6	18.0	.5	0.94	-2.92
8	71.704	5.634	22.4	16.1	12.8	.6	0.77	2.73
8	83.567	4.692	26.9	15.5	12.6	.7	0.72	6.35
8	86.337	2.802	35.0	24.0	14.5	.4	0.63	0.88
8	86.337	2.802	7.5	3.8	3.0	.5	0.68	8.06
8	89.850	1.272	40.0	21.3	15.1	.6	0.64	6.65
8	89.850	1.272	28.4	19.1	17.5	.4	0.83	5.73
8	87.743	7.882	35.5	16.9	16.5	.6	0.77	10.30
8	87.743	7.882	35.6	20.6	18.6	.6	0.78	7.32
8	87.743	7.882	22.1	17.6	13.1	.7	0.76	0.00
8	81.440	12.673	31.4	18.1	17.3	.4	0.81	8.05
8	45.529	13.545	13.5	12.5	7.6	.6	0.70	-5.87
8	69.945	10.597	34.5	19.9	16.5	.7	0.73	6.51
8	69.945	10.597	13.7	10.0	4.5	.7	0.53	-2.98
8	68.362	9.668	11.0	8.2	7.2	.8	0.83	3.62
8	74.429	16.433	18.6	13.5	8.3	.7	0.65	-0.11
8	86.289	13.592	28.5	18.6	18.5	.6	0.86	7.55
8	86.289	13.592	35.0	21.5	17.8	.6	0.75	5.60
8	87.995	14.143	23.8	15.0	13.2	.6	0.79	5.95
8	87.995	14.143	27.2	15.5	12.0	.6	0.70	6.11
8	103.840	-0.234	25.8	22.9	16.0	.4	0.76	-3.29
8	87.696	8.575	35.5	16.9	16.5	.6	0.77	10.30
8	87.696	8.575	22.1	17.6	13.1	.7	0.76	0.00
8	117.644	7.637	12.3	9.1	7.6	.6	0.80	2.93
8	153.147	-7.272	27.1	22.6	17.9	.5	0.81	-0.16
8	98.246	17.031	23.6	16.8	14.1	.5	0.79	3.61
8	98.573	15.342	10.4	9.7	5.0	.6	0.63	-7.70
8	86.441	17.113	13.2	11.5	7.7	.9	0.73	-3.27
8	83.692	16.530	32.2	19.3	15.6	.4	0.73	5.72
8	83.692	16.530	24.2	13.1	11.9	.7	0.76	8.18
8	81.864	18.624	27.2	17.3	14.5	.6	0.76	5.24
8	77.195	16.679	27.2	18.4	9.3	.5	0.56	-0.25
8	82.268	13.257	9.9	5.6	2.9	.7	0.53	3.90
8	80.339	12.761	7.3	5.9	4.9	.2	0.82	1.24
8	80.339	12.761	11.8	5.6	5.3	.3	0.75	10.10
8	68.094	12.261	15.3	11.0	8.1	.4	0.73	1.84
8	65.602	14.324	11.5	10.2	9.6	.8	0.92	2.21
8	63.524	15.742	11.4	9.0	4.9	.7	0.62	-3.04
8	63.524	15.742	13.5	12.0	7.8	.7	0.72	-4.10
8	61.239	15.117	12.3	9.1	7.6	.6	0.80	2.93
8	61.981	11.875	11.0	6.7	6.2	.6	0.80	7.02
8	61.981	11.875	9.5	7.4	7.4	.5	0.92	6.42
8	57.391	11.939	9.4	8.5	5.7	.7	0.74	-4.23
8	0.207	-1.637	15.2	8.0	4.5	.4	0.55	5.84
8	1.697	-1.699	8.0	5.5	4.3	.5	0.75	3.27
8	1.697	-1.699	4.9	4.2	3.3	.6	0.81	-0.93
8	2.109	-0.628	11.6	10.7	7.9	.8	0.80	-3.77
8	4.602	-1.376	31.0	18.0	6.5	.5	0.42	1.46
8	4.602	-1.376	16.6	16.2	7.0	.4	0.57	-10.87
8	4.602	-1.376	12.3	9.0	3.3	.4	0.46	-4.97
8	4.602	-1.376	9.0	8.8	3.4	.7	0.53	-12.29
8	4.677	-2.713	6.2	6.0	5.0	.6	0.88	-4.13

8	5.318	-0.955	14.6	10.0	5.5	.6	0.59	0.15
8	5.859	-3.472	6.8	6.4	4.5	.8	0.77	-4.93
8	7.232	-2.954	8.6	5.3	4.5	.5	0.76	5.83
8	7.232	-2.954	14.0	7.0	5.5	.8	0.68	8.24
8	7.232	-2.954	21.5	15.8	11.3	.7	0.72	1.12
8	8.457	-3.122	13.5	10.8	5.4	.3	0.58	-4.17
8	8.457	-3.122	4.6	4.0	2.8	.7	0.75	-2.74
8	8.457	-3.122	6.8	4.8	2.2	.7	0.53	-2.02
8	9.046	-1.727	7.0	5.5	5.5	.3	0.92	6.36
8	9.046	-1.727	8.7	6.7	6.3	.3	0.88	4.60
8	9.046	-1.727	6.2	4.2	2.2	.6	0.57	0.00
8	16.296	-3.329	29.8	15.1	14.0	.6	0.76	9.16
8	30.489	-3.235	15.2	10.8	5.8	.6	0.59	-0.84
8	30.489	-3.235	6.0	5.3	4.1	.8	0.81	-1.93
8	30.489	-3.235	6.1	5.3	4.0	.7	0.79	-1.82
8	35.804	-0.158	7.5	7.0	2.5	.7	0.49	-12.00
8	130.673	-26.782	11.8	11.6	6.2	.5	0.65	-8.84
8	41.304	4.005	7.8	6.9	1.9	.6	0.41	-14.26
8	46.764	5.096	25.5	17.0	10.8	.2	0.65	1.85
8	50.162	0.870	26.2	18.9	14.4	.5	0.75	2.16
8	52.186	0.338	17.5	16.5	13.2	.6	0.85	-3.55
8	52.186	0.338	24.6	16.7	11.4	.8	0.68	2.13
8	52.186	0.338	10.4	5.6	5.1	.7	0.76	8.27
8	158.629	-38.791	19.6	9.7	6.1	.6	0.58	7.50
8	52.820	-0.615	16.5	12.5	3.3	.2	0.38	-9.85
8	52.820	-0.615	8.2	6.5	3.0	.4	0.55	-4.73
8	52.820	-0.615	10.2	7.6	4.3	.3	0.62	-1.41
8	52.820	-0.615	9.4	7.8	6.3	.6	0.81	0.24
8	52.820	-0.615	10.3	9.4	4.3	.7	0.58	-8.38
8	52.820	-0.615	34.0	18.5	16.3	.6	0.75	7.84
8	53.967	0.721	14.9	11.5	7.0	.6	0.66	-1.48
8	53.967	0.721	9.0	6.0	4.5	.5	0.72	3.33
8	53.074	2.153	8.4	6.3	3.2	.3	0.58	-2.52
8	50.306	3.958	11.4	8.6	5.9	.7	0.71	0.18
8	53.309	1.682	10.2	10.0	6.0	.9	0.71	-7.69
8	53.309	1.682	32.3	18.2	15.8	.4	0.75	7.25
8	55.911	1.612	10.9	6.8	6.0	.5	0.79	6.12
8	55.911	1.612	11.5	10.5	5.3	.1	0.62	-7.35
8	55.911	1.612	29.3	22.5	10.5	.6	0.55	-3.86
8	58.386	3.070	11.5	9.0	5.9	.8	0.70	-1.04
8	58.386	3.070	13.6	9.6	7.7	.8	0.77	3.14
8	58.386	3.070	12.5	8.5	2.2	.4	0.36	-6.34
8	58.386	3.070	15.3	11.0	7.2	.6	0.68	0.66
8	58.386	3.070	17.1	11.5	5.9	.5	0.56	-0.00
8	58.547	1.014	14.0	7.4	5.3	.5	0.65	6.83
8	58.547	1.014	13.0	9.9	9.5	.7	0.89	5.28
8	57.358	5.104	10.2	8.4	3.1	.7	0.48	-8.11
8	57.358	5.104	17.5	13.0	6.2	.7	0.55	-2.87
8	57.358	5.104	10.7	5.1	4.6	.3	0.73	9.72
8	62.830	3.620	10.7	7.2	3.6	.5	0.55	-0.21
8	62.830	3.620	5.7	4.6	2.0	.5	0.53	-5.78
8	62.830	3.620	6.7	6.2	4.5	.7	0.79	-4.06
8	63.028	1.928	10.4	9.7	5.0	.6	0.63	-7.70
8	63.775	2.381	13.2	9.5	3.2	.7	0.43	-5.36
8	63.775	2.381	9.8	8.7	4.9	.6	0.66	-5.51
8	65.263	0.448	11.2	9.3	4.9	.6	0.61	-4.54
8	65.263	0.448	10.8	8.4	3.5	.8	0.51	-5.28
8	26.432	2.584	25.6	15.9	12.1	.4	0.71	4.62
8	66.397	4.348	9.9	8.4	4.0	.7	0.58	-6.08
8	66.397	4.348	8.0	6.7	2.9	.5	0.54	-6.76
8	64.383	4.575	13.8	12.8	8.3	.7	0.73	-5.29
8	65.903	6.763	10.3	8.7	5.1	.8	0.66	-3.88
8	61.409	10.422	5.9	4.3	2.7	.5	0.66	-0.00
8	63.695	7.501	8.9	4.0	3.2	.5	0.66	10.00
8	66.624	9.117	7.5	4.9	1.7	.3	0.43	-2.28
8	64.177	12.779	11.6	9.6	7.9	.8	0.82	0.60

8	64.177	12.779	8.1	6.5	4.3	.2	0.71	-1.49
8	66.693	12.188	9.4	8.5	5.7	.7	0.74	-4.23
8	69.122	4.006	9.9	8.2	4.9	.7	0.67	-3.23
8	74.594	3.201	16.8	19.7	9.0	.7	0.63	-16.27
8	74.594	3.201	13.0	6.7	4.8	.6	0.64	7.27
8	74.594	3.201	9.1	5.8	5.2	.5	0.80	6.06
8	77.196	0.037	13.3	11.6	7.2	.5	0.70	-4.09
8	77.196	0.037	11.6	7.9	6.5	.7	0.77	4.02
8	76.204	12.618	11.6	8.3	6.1	.8	0.73	1.90
8	76.204	12.618	10.6	8.2	7.4	.7	0.86	3.58
8	79.345	6.626	19.8	14.2	13.1	.6	0.85	5.08
8	80.457	7.931	14.4	9.8	6.2	.6	0.65	1.42
8	78.517	9.592	26.7	14.9	11.9	.6	0.71	6.67
8	72.655	10.724	27.5	13.2	12.5	.4	0.76	9.97
8	72.655	10.724	6.0	6.0	5.0	.7	0.89	-6.00
8	373.825	-0.496	9.3	6.9	4.7	.8	0.70	0.43
8	71.697	11.436	10.0	6.8	5.6	.7	0.77	4.06
8	71.483	14.120	9.5	7.4	7.4	.5	0.92	6.42
8	71.483	14.120	11.0	6.7	6.2	.6	0.80	7.02
8	75.808	12.636	32.0	27.5	13.6	.5	0.59	-6.01
8	75.808	12.636	19.9	15.2	11.7	.7	0.77	1.24
8	75.808	12.636	10.2	6.9	6.8	.7	0.87	7.06
8	75.808	12.636	18.3	16.4	13.6	.5	0.85	-1.29
8	77.989	13.990	14.2	11.8	11.7	.4	0.93	5.58
8	77.989	13.990	15.3	11.0	8.1	.4	0.73	1.84
8	69.248	8.342	14.4	9.8	6.2	.6	0.65	1.42
8	79.751	4.423	10.7	6.5	4.3	.7	0.64	3.89
8	79.751	4.423	10.2	6.6	6.1	.7	0.82	6.32
8	82.474	4.698	9.6	4.8	3.8	.8	0.68	8.28
8	85.884	3.326	16.5	14.2	13.4	.6	0.92	2.98
8	84.540	8.154	7.8	5.1	3.6	.4	0.69	3.10
8	87.604	8.513	10.9	6.6	4.3	.3	0.64	3.84
8	88.402	11.657	14.1	10.4	5.1	.7	0.56	-2.46
8	88.402	11.657	12.9	7.5	3.6	.6	0.51	2.89
8	89.607	14.038	11.8	5.6	5.3	.3	0.75	10.10
8	89.607	14.038	7.3	5.9	4.9	.2	0.82	1.24
8	93.155	11.070	24.9	15.7	12.6	.6	0.74	4.90
8	93.155	11.070	19.5	9.3	7.8	.5	0.69	9.29
8	90.259	4.847	8.3	6.6	4.9	.4	0.76	-0.00
8	95.132	4.709	10.1	5.5	3.9	.6	0.65	6.27
8	1.542	-0.429	19.9	18.7	14.9	.4	0.84	-3.47
8	96.820	12.342	28.6	22.0	18.6	.6	0.82	2.46
8	96.820	12.342	24.4	12.1	10.1	.3	0.70	8.70
8	95.902	15.182	15.1	10.8	7.3	.4	0.69	1.06
8	95.902	15.182	9.8	7.7	7.3	.7	0.89	4.56
8	105.975	14.204	24.2	13.1	11.9	.7	0.76	8.18
8	69.243	15.426	5.8	4.5	3.0	.4	0.70	-0.69
8	101.611	11.628	32.5	20.4	14.1	.6	0.67	3.63
8	103.998	6.616	12.4	9.5	7.5	.7	0.78	1.52
8	98.562	4.857	13.5	11.2	10.1	.6	0.88	2.36
8	98.562	4.857	15.7	13.8	4.8	.3	0.47	-10.65
8	110.057	7.712	9.5	5.7	3.2	.4	0.57	3.06
8	110.057	7.712	9.8	5.6	4.8	.4	0.75	6.94
8	113.045	13.575	12.6	6.7	6.4	.7	0.79	8.89
8	116.396	15.423	12.8	6.8	5.6	.6	0.71	7.62
8	118.857	19.770	34.0	21.0	11.8	.6	0.58	2.47
8	124.533	14.516	15.8	9.6	6.4	.2	0.65	3.94
8	123.247	12.340	14.0	8.2	5.0	.3	0.60	4.04
8	127.879	11.654	12.2	8.6	8.1	.7	0.86	5.69
0								

9	111.494	20.393	6.8	6.2	4.9	.4	0.83	-2.56
9	114.714	26.683	36.0	23.0	17.7	.7	0.72	4.28
9	115.275	20.218	22.4	19.0	10.5	.6	0.64	-4.57
9	119.350	17.184	18.9	14.9	7.6	.6	0.59	-3.63
9	123.409	14.655	23.2	16.4	14.9	.7	0.84	4.97
9	125.974	12.421	17.1	12.8	19.3	.6	1.19	-21.75
9	125.974	12.421	19.4	14.9	9.3	.6	0.67	-1.14
9	132.909	3.219	17.0	15.7	15.2	.5	0.95	2.49
9	134.266	4.864	11.6	11.4	5.2	.1	0.59	-10.46
9	134.111	6.869	12.2	6.4	6.0	.6	0.77	8.85
9	126.030	15.044	24.6	17.1	13.8	.7	0.77	3.47
9	127.827	19.003	22.7	16.0	12.6	.6	0.76	2.94
9	123.738	23.797	41.0	20.3	16.9	.6	0.70	8.71
9	137.140	26.898	33.0	18.2	16.8	.5	0.78	8.12
9	137.140	26.898	21.0	18.8	15.1	.6	0.83	-1.77
9	138.394	15.583	9.8	6.1	4.0	.5	0.64	3.38
9	139.596	2.376	13.3	9.6	6.9	.6	0.72	1.51
9	146.481	11.343	10.0	8.9	6.5	.6	0.78	-2.86
9	158.533	19.860	24.7	18.6	13.9	.3	0.75	1.15
9	259.559	8.316	23.0	22.3	9.4	.4	0.56	-10.97
9	300.794	8.888	27.2	21.5	17.0	.5	0.79	0.94
9	97.681	32.343	29.4	13.8	12.4	.6	0.72	9.90
9	103.731	33.647	39.0	20.5	14.8	.6	0.65	6.97
9	101.574	32.519	40.0	20.4	17.8	.7	0.73	8.60
9	99.842	28.842	18.3	17.6	12.0	.6	0.76	-5.93
9	105.926	24.357	16.5	12.3	6.9	.2	0.62	-1.49
9	105.926	24.357	26.8	10.5	10.0	.2	0.71	12.60
9	105.414	18.703	12.0	4.4	7.2	.6	0.99	18.06
9	107.355	12.880	19.3	12.4	8.4	.5	0.67	3.06
9	107.943	9.003	20.7	17.2	8.1	.7	0.57	-5.68
9	110.970	1.152	15.0	10.8	6.8	.3	0.66	0.27
9	110.970	1.152	16.8	12.7	8.1	.5	0.67	-0.60
9	112.277	-0.917	9.6	15.2	4.3	.3	0.50	-34.75
9	115.057	0.700	8.3	4.8	3.5	.5	0.67	5.43
9	115.473	2.474	8.8	6.9	5.0	.6	0.74	0.00
9	115.869	7.021	42.0	16.3	15.6	.6	0.71	12.75
9	115.869	7.021	12.2	11.5	6.8	.5	0.69	-6.64
9	111.215	13.126	15.2	5.3	5.2	.5	0.69	14.32
9	111.215	13.126	17.1	13.9	10.1	.6	0.75	-0.73
9	115.812	8.736	12.0	8.6	2.3	.6	0.37	-7.80
9	117.582	8.031	11.0	6.0	2.8	.2	0.49	4.31
9	118.676	8.729	11.8	8.2	12.8	.7	1.19	-37.80
9	121.201	7.429	11.9	10.8	8.1	.7	0.80	-3.09
9	120.665	11.103	13.1	11.5	7.1	.5	0.69	-4.31
9	120.665	11.103	11.2	5.9	5.3	.6	0.75	8.42
9	117.150	14.902	8.5	7.2	5.6	.6	0.80	-0.79
9	111.494	20.393	11.2	7.1	6.6	.6	0.82	6.64
9	0.250	-1.580	15.2	8.8	4.5	.1	0.53	3.31
9	5.871	-3.833	9.1	5.8	4.8	.7	0.76	5.07
9	11.187	-2.271	7.2	5.6	5.2	.4	0.88	4.15
9	8.307	-2.268	28.8	14.8	13.8	.7	0.76	9.04
9	23.122	24.466	10.6	8.8	5.7	.8	0.70	-2.47
9	53.770	6.424	14.2	8.9	4.0	.5	0.50	0.70
9	59.056	-3.132	17.1	11.0	9.2	.6	0.77	5.06
9	60.841	-0.651	9.2	9.1	2.8	.5	0.45	-15.92
9	59.988	5.598	12.2	11.8	4.0	.4	0.48	-13.76
9	61.319	5.206	9.6	9.6	2.9	.3	0.45	-16.55
9	68.091	-1.134	11.3	8.9	4.5	.5	0.59	-3.69
9	74.375	-5.494	11.2	6.5	6.0	.4	0.79	7.54
9	76.083	-3.193	9.4	8.0	4.5	.5	0.65	-4.48
9	60.864	28.403	35.0	15.2	13.5	.5	0.70	10.91
9	59.638	36.307	9.4	7.6	6.4	.6	0.83	1.47
9	69.373	25.568	26.9	17.6	15.5	.6	0.80	5.48
9	72.516	23.666	35.0	21.0	18.7	.5	0.78	6.72
9	75.002	16.507	15.5	10.3	6.5	.3	0.64	1.85
9	75.972	11.216	26.4	14.9	10.3	.3	0.65	5.19

9	75.972	11.216	16.8	14.3	10.2	.6	0.76	-2.00
9	74.603	5.594	10.8	9.1	5.5	.5	0.68	-3.52
9	88.139	-1.024	16.5	15.0	10.8	.6	0.78	-3.62
9	88.930	1.130	11.4	10.3	5.8	.6	0.66	-5.97
9	85.290	1.472	10.0	9.4	4.0	.5	0.55	-10.00
9	85.290	1.472	13.7	9.5	7.6	.7	0.76	3.40
9	85.652	3.525	20.3	14.8	8.7	.5	0.63	-0.60
9	88.962	5.892	9.2	8.0	4.5	.7	0.65	-5.00
9	82.741	15.160	22.7	20.5	18.7	.4	0.91	0.61
9	79.951	16.646	10.6	8.7	4.8	.6	0.63	-3.81
9	76.464	20.702	15.1	9.0	7.5	.3	0.75	6.09
9	80.428	32.862	27.0	15.6	12.6	.6	0.72	6.25
9	80.428	32.862	26.8	15.0	11.3	.4	0.68	6.20
9	82.996	29.321	39.0	27.2	13.5	.3	0.56	-1.08
9	85.254	28.848	33.0	22.5	19.2	.4	0.79	4.48
9	87.915	20.635	19.7	8.8	5.9	.5	0.59	9.68
9	87.915	20.635	12.8	8.2	4.9	.5	0.61	2.15
9	93.133	7.986	11.8	8.6	3.2	.3	0.47	-4.72
9	93.893	2.942	24.0	16.7	6.6	.4	0.48	-2.93
9	93.893	2.942	21.2	17.6	9.9	.3	0.64	-3.88
9	93.893	2.942	7.4	6.3	5.0	.3	0.81	-0.62
9	101.003	-0.017	8.0	6.7	4.2	.3	0.69	-3.01
9	101.003	-0.017	16.7	9.4	8.9	.7	0.80	8.18
9	101.003	-0.017	13.4	10.6	9.0	.5	0.83	2.03
9	101.003	-0.017	19.3	10.4	7.2	.5	0.64	6.31
9	101.003	-0.017	11.3	9.4	7.3	.6	0.79	-0.39
9	96.374	5.840	13.9	10.3	5.0	.4	0.56	-2.66
9	100.038	10.942	15.9	11.7	10.1	.8	0.82	3.53
9	96.290	15.507	8.6	5.9	3.9	.2	0.67	1.64
9	91.897	20.369	18.4	16.0	13.6	.4	0.86	0.00
9	94.978	19.308	22.7	20.5	18.7	.4	0.91	0.61
9	92.629	32.999	40.0	21.9	14.8	.6	0.63	5.90
9	92.629	32.999	28.2	18.8	17.5	.3	0.83	6.10
0								

10	50.064	5.105	8.7	4.8	4.4	.5	0.77	8.05
10	50.013	15.271	19.1	15.0	12.6	.6	0.82	1.98
10	21.182	18.796	9.0	6.5	2.9	.2	0.52	-2.80
10	5.522	31.298	7.4	4.9	4.9	.6	0.87	7.55
10	67.619	9.066	12.5	9.0	8.0	.1	0.83	4.34
10	67.619	9.066	8.2	7.9	5.0	.5	0.73	-6.66
10	67.619	9.066	10.1	8.0	3.0	.3	0.48	-6.88
10	59.732	-8.961	7.4	6.0	1.8	.2	0.42	-10.28
10	85.742	-21.304	13.0	7.1	3.3	.4	0.54	4.83
10	89.024	-21.325	10.2	7.6	3.3	.5	0.52	-3.81
10	89.024	-21.325	7.5	7.4	3.0	.6	0.55	-11.94
10	83.888	-18.383	9.4	8.1	4.7	.6	0.66	-4.47
10	88.882	-15.553	13.7	7.9	6.3	.5	0.72	6.17
10	106.288	-23.400	11.1	9.3	7.0	.6	0.78	-0.97
10	116.447	-25.819	21.1	10.9	7.5	.2	0.63	7.03
10	123.969	-24.746	8.9	4.8	2.5	.5	0.53	5.01
10	123.969	-24.746	13.1	11.0	3.9	.3	0.47	-9.13
10	132.997	-23.745	7.9	6.0	2.4	.5	0.50	-5.09
10	132.997	-23.745	8.0	7.0	4.1	.7	0.67	-4.75
10	124.600	-12.208	19.5	9.2	8.6	.6	0.74	10.09
10	124.907	0.420	8.8	7.0	4.4	.6	0.68	-1.82
10	124.907	0.420	7.0	6.2	3.5	.5	0.66	-5.43
10	127.910	-10.217	24.5	17.2	12.5	.6	0.72	2.12
10	126.029	-11.375	11.4	8.6	5.8	.7	0.70	-0.00
10	126.323	-13.654	11.6	5.4	4.1	.2	0.65	9.24
10	127.927	-19.258	5.8	4.0	2.7	.7	0.68	1.73
10	129.413	-29.969	8.2	4.0	3.8	.6	0.76	9.81
10	129.413	-29.969	22.0	10.7	10.1	.5	0.76	9.79
10	129.413	-29.969	20.1	14.0	7.9	.3	0.61	-0.00
10	133.757	-29.291	12.5	6.5	2.9	.2	0.47	5.39
10	137.993	-27.051	9.1	7.5	4.8	.2	0.70	-2.42
10	147.959	-33.540	31.0	13.3	11.4	.5	0.68	10.96
10	147.489	-40.078	26.5	14.0	11.8	.4	0.72	7.87
10	183.119	-52.418	11.5	11.2	5.3	.2	0.60	-9.80
10	156.634	-36.926	10.2	9.1	5.8	.4	0.71	-4.40
10	156.634	-36.926	27.4	19.4	11.7	.3	0.64	0.22
10	192.038	-55.721	11.0	7.8	7.7	.7	0.88	6.71
10	192.038	-55.721	10.4	6.9	6.7	.6	0.86	6.92
10	164.809	-39.970	11.0	9.7	4.8	.7	0.60	-6.65
10	164.809	-39.970	12.2	11.0	6.0	.7	0.64	-6.23
10	164.809	-39.970	11.3	7.1	5.4	.7	0.71	4.43
10	164.809	-39.970	10.0	7.9	4.8	.5	0.66	-2.00
10	162.425	-35.167	12.8	10.3	7.5	.4	0.75	-0.48
10	162.425	-35.167	11.9	9.5	5.4	.1	0.64	-2.88
10	162.425	-35.167	21.3	18.2	14.5	.3	0.82	-0.65
10	148.972	-20.527	15.8	6.0	5.5	.3	0.68	12.97
10	145.077	-4.463	35.0	23.3	18.2	.6	0.74	3.78
10	159.828	-12.011	35.0	18.0	17.7	.7	0.79	9.54
10	164.935	-12.153	44.0	19.5	18.6	.6	0.74	10.99
10	156.242	-20.873	12.4	10.4	9.1	.8	0.86	1.45
10	160.944	-25.057	11.8	9.7	5.9	.5	0.67	-2.88
10	167.714	-29.304	11.3	10.2	5.3	.4	0.62	-6.75
10	167.714	-29.304	12.0	6.6	5.9	.7	0.76	7.84
10	167.714	-29.304	9.9	8.5	6.1	.6	0.76	-2.14
10	173.814	-37.929	8.3	7.0	5.5	.5	0.80	-0.54
10	173.814	-37.929	13.7	7.1	4.5	.3	0.59	6.62
10	183.952	-44.825	22.5	21.5	7.0	.3	0.47	-14.00
10	186.098	-44.509	21.5	9.9	9.3	.6	0.74	10.42
10	186.098	-44.509	21.9	14.3	12.6	.6	0.80	5.51
10	186.098	-44.509	23.0	17.5	13.3	.3	0.76	1.16
10	197.845	-34.728	31.0	21.5	14.5	.4	0.68	1.62
10	197.845	-34.728	20.9	15.2	10.7	.5	0.71	1.15
10	197.845	-34.728	25.6	14.2	11.8	.6	0.73	7.07
10	220.468	-28.531	27.2	19.2	14.7	.6	0.75	2.59

APPENDIX 5.1 BASIC PROFILE DATA OF THE 402 PROFILES

The first 8 blocks of data give the co-ordinates for profiles from the 8 'permanent' cross-sections shown on Figs: 5.7 and 5.8. The final two blocks give the continuous monitoring (CM) profile co-ordinates from the 6 'temporary' cross-sections on each beach.

The first couple of lines of each data block should be ignored. The first column of the co-ordinate values represents elevation above O.D. in metres. The second column represents the distance down-beach from the ridge crest in metres. The last line of each set of co-ordinates is a flag value for a computer program and should be ignored. Each set of profile co-ordinates from permanent cross-sections is preceeded by the survey date, whereas those from temporary cross-sections run in a daily sequence.

```
GILESTON 1
 0.0   1.0 1.0
 33.0 10.0 10.0
A 10/11/77
7.833  0.0
7.415  3.5
6.786  7.6
5.665  9.6
4.815 15.5
3.717 23.6
3.227 33.0
 .000 -1.0
B 24/11/77
7.833  0.0
7.475  2.8
6.967  6.6
6.098  8.9
4.978 15.1
3.855 22.1
3.227 33.0
 .000 -1.0
C 12/12/77
7.833  0.0
7.403  6.1
5.285 13.5
4.554 18.2
3.227 33.0
 .000 -1.0
D 27/12/77
7.833  0.0
7.510  1.4
7.420  4.9
7.170  8.4
6.500  9.4
6.420 10.4
5.550 11.4
4.775 14.4
4.300 17.4
3.648 21.9
3.468 26.4
3.450 29.4
3.227 33.0
 .000 -1.0
E 12/01/78
7.833  0.0
7.592  2.3
5.636  8.1
4.723 13.2
3.227 33.0
 .000 -1.0
F 25/01/78
7.833  0.0
7.502  1.8
7.575  2.9
6.443  6.6
5.895  7.9
4.525 13.8
3.227 33.0
 .000 -1.0
G 09/02/78
7.833  0.0
7.596  2.0
7.303  3.6
6.476  4.7
5.695  6.9
5.205  9.5
4.189 18.8
3.227 33.0
 .000 -1.0
H 28/02/78
7.833  0.0
7.581  1.5
6.899  3.2
6.344  5.7
5.790  7.6
5.335 11.4
4.600 16.1
3.910 23.7
3.227 33.0
 .000 -1.0
I 10/03/78
7.833  0.0
7.568  1.8
6.369  4.4
5.714 10.0
4.925 14.6
3.879 26.2
3.227 33.0
 .000 -1.0
J 30/03/78
7.833  0.0
6.555  4.6
6.681  7.7
5.554 11.9
4.606 19.5
3.872 26.8
3.227 33.0
 .000 -1.0
K 11/04/78
7.833  0.0
7.541  1.7
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6.815  7.1
5.635 10.9
5.217 13.0
4.296 18.0
3.227 33.0
 .000 -1.0
L 27/04/78
7.833  0.0
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6.720  7.6
5.870 10.4
5.110 14.5
3.951 21.3
3.227 33.0
 .000 -1.0
M 09/05/78
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5.334 13.3
4.981 16.4
3.776 26.3
3.227 33.0
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N 25/05/78
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3.227 33.0
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O 08/06/78
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6.801  8.2
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P 23/06/78
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7.485  2.2
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6.330  7.4
6.160  9.4
6.107 11.6
4.832 18.0
3.849 23.4
3.227 33.0
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Q 12/07/78
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7.542  2.7
6.533  4.3
6.755  7.5
6.462  8.8
6.461 10.1
6.231 10.8
5.901 13.7
4.961 17.6
4.526 19.1
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3.227 33.0
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R 25/07/78
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7.467  1.9
6.560  4.5
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6.463 10.5
5.878 12.5
5.627 14.3
4.687 18.1
3.753 24.3
3.227 33.0
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S 09/08/78
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7.489  2.1
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6.856  7.0
6.567 10.2
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4.848 17.9
3.799 22.9
3.227 33.0
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T 23/08/78
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V 21/09/78
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Y 13/12/78
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5.660 10.9
3.635 19.9
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3.227 33.0
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B 24/11/77
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6.460  6.7
5.334  9.4
4.073 17.0
3.222 28.6
3.098 30.0
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C 12/12/77
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D 27/12/77
7.830  0.0
6.480  4.0
4.410 12.0
3.170 29.0
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E 12/01/78
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O 08/06/78
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P 23/06/78
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6.645  4.3
6.739  7.7
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4.230 22.9
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R 25/07/78
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6.771  1.7
6.925  2.6
6.568  4.2
6.783  8.1
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3.925 22.5
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T 23/08/78
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5.067 16.7
3.987 20.9
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V 21/09/78
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6.185  9.0
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B 24/11/77
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3.777  19.3
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 .000  -1.0
C 12/12/77
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D 27/12/77
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J 30/03/78
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N 25/05/78
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O 08/06/78
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P 23/06/78
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Q 12/07/78
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R 25/07/78
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S 09/08/78
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T 23/08/78
8.147   0.0
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4.749 12.9
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3.322 23.6
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V 21/09/78
8.147 0.0
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Y 13/12/78
8.147 0.0
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6.740 4.1
5.155 11.2
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3.335 22.7
3.140 26.7
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Z 19/02/79
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GILESTON 4
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A 10/11/77
8.457   0.0
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 .000  -1.0
B 24/11/77
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3.347  25.1
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 .000  -1.0
C 12/12/77
8.457   0.0
8.140   1.5
7.204   4.3
5.973   8.2
4.469  15.9
3.464  23.4
3.152  26.7
2.700  32.0
 .000  -1.0
D 27/12/77
8.457   0.0
8.142   1.5
7.667   2.7
6.987   4.5
6.452   6.5
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4.252  17.5
3.372  23.8
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 .000  -1.0
E 12/01/78
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7.080   5.1
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3.303  26.4
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 .000  -1.0
F 25/01/78
8.457   0.0
8.140   1.5
7.612   2.2
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2.700  32.0
 .000  -1.0
G 09/02/78
8.457   0.0
8.141   1.5
7.817   2.2
6.996   3.5
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4.361  17.9
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3.262  25.6
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 .000  -1.0
H 28/02/78
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I 10/03/78
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3.075  28.8
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J 30/03/78
8.457   0.0
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 .000  -1.0
K 11/04/78
8.457   0.0
8.138   1.5
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6.766   5.4
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3.565  23.7
2.700  32.0
 .000  -1.0
L 25/04/78
8.457   0.0
8.139   1.5
7.376   2.8
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3.716  23.0
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M 09/05/78
8.457   0.0
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6.817   7.2
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2.802  30.0
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N 25/05/78
8.457   0.0
8.142   1.5
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6.872   3.9
6.689   7.8
4.845  16.9
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O 08/06/78
8.457   0.0
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3.404  26.3
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P 23/06/78
8.457   0.0
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Q 12/07/78
8.457   0.0
8.142   1.5
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6.837   8.2
4.993  16.2
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3.233  27.1
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R 25/07/78
8.457   0.0
8.140   1.5
7.235   3.7
6.766   7.5
4.748  17.0
3.635  23.6
2.700  32.0
 .000  -1.0
S 09/08/78
8.457   0.0
8.139   1.5
7.809   2.3
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4.794 16.3
3.755 23.9
2.700 32.0
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T 23/08/78
8.457  0.0
8.140  1.5
7.790  2.0
7.063  3.4
6.809  7.5
6.576  9.4
5.073 14.5
4.233 19.6
3.496 25.5
2.700 32.0
 .000 -1.0
U 07/09/78
8.457  0.0
8.141  1.5
7.298  2.4
7.010  3.6
6.798  7.7
5.878 11.4
4.920 15.4
3.802 23.1
2.902 28.0
2.700 32.0
 .000 -1.0
V 21/09/78
8.457  0.0
8.142  1.5
6.970  3.3
6.793  7.5
6.350  9.9
5.841 11.0
5.020 14.2
4.043 21.0
3.543 24.6
2.851 29.5
2.700 32.0
 .000 -1.0
W 05/10/78
8.457  0.0
8.139  1.5
7.817  2.2
6.966  3.5
6.746  7.1
6.376  9.8
5.095 13.9
3.966 21.5
3.464 25.1
2.700 32.0
 .000 -1.0
X 19/10/78
8.457  0.0
8.140  1.5
7.733  2.3
6.989  3.7
6.732  7.8
6.441 10.0
5.134 13.5
4.233 19.7
3.415 24.9
2.700 32.0
 .000 -1.0
Y 13/12/78
8.457  0.0
8.138  1.5
7.417  6.0
6.977  8.0
5.847 12.0
4.857 17.0
4.317 24.0
3.212 29.3
2.700 32.0
 .000 -1.0
Z 19/02/79
8.457  0.0
8.141  1.5
7.583  3.2
7.671  6.2
7.087  7.4
5.481 14.5
4.677 17.5
4.133 19.9
3.561 24.4
2.700 32.0
 .000 -1.0
*
```

```
NASH 1
  0.0   1.0 1.0
 37.0 10.0 10.0
A 14/11/77
7.250   0.0
6.940   3.4
6.630   5.3
5.562   9.6
4.508 17.0
4.315 21.4
3.788 25.9
2.480 29.0
1.890 33.0
1.820 37.0
 .000 -1.0
B 25/11/77
7.250   0.0
7.182   2.5
6.129   5.2
5.289   7.4
4.214 15.6
2.488 29.0
1.891 33.0
1.820 37.0
 .000 -1.0
C 13/12/77
7.250   0.0
6.843   2.3
6.626   3.9
6.516   5.7
5.151 11.3
4.029 16.6
2.883 26.1
2.481 29.0
1.889 33.0
1.820 37.0
 .000 -1.0
D 28/12/77
7.250   0.0
6.755   3.4
6.717   6.1
5.557   8.8
4.225 15.1
3.570 20.6
2.482 29.0
1.892 33.0
1.820 37.0
 .000 -1.0
E 13/01/78
7.250   0.0
6.647   1.5
5.989   5.6
4.913   9.8
3.317 22.6
2.478 29.0
1.886 33.0
1.820 37.0
 .000 -1.0
F 26/01/78
7.250   0.0
6.353   1.8
6.064   3.7
5.332   8.2
3.826 25.0
2.482 29.0
1.890 33.0
1.820 37.0
 .000 -1.0
G 10/02/78
7.250   0.0
6.222   2.5
5.211   9.7
3.921 16.7
2.575 26.8
2.481 29.0
1.896 33.0
1.820 37.0
 .000 -1.0
H 27/02/78
7.250   0.0
7.158   2.8
7.072   6.1
6.278   8.4
4.889 13.1
3.381 20.1
3.009 23.0
2.482 29.0
1.891 33.0
1.820 37.0
 .000 -1.0
I 09/03/78
7.250   0.0
7.124   2.0
6.993   4.8
6.664   5.5
5.267 10.1
3.980 15.7
2.483 29.0
1.888 33.0
1.820 37.0
 .000 -1.0
J 29/03/78
7.250   0.0
6.995   1.4
6.408   4.1
6.020   7.3
5.187 12.6
4.067 17.1
3.663 21.0
2.486 29.0
1.891 33.0
1.820 37.0
 .000 -1.0
K 10/04/78
7.250   0.0
6.330   3.6
6.307   7.7
5.787 10.7
5.051 13.3
3.197 21.9
2.512 28.1
2.481 29.0
1.887 33.0
1.820 37.0
 .000 -1.0
L 24/04/73
7.250   0.0
7.109   1.2
6.712   2.3
5.558   9.9
4.966 11.3
3.978 16.7
3.204 23.7
2.482 29.0
1.893 33.0
1.820 37.0
 .000 -1.0
M 08/05/78
7.250   0.0
7.049   1.0
6.296   5.3
5.768   8.5
4.860 11.7
3.661 17.4
2.830 24.9
2.477 29.0
1.890 33.0
1.820 37.0
 .000 -1.0
N 24/05/78
7.250   0.0
6.721   2.7
6.341   5.7
5.774   9.7
3.932 16.4
3.235 20.5
2.478 29.0
1.892 33.0
1.820 37.0
 .000 -1.0
O 09/06/78
7.250   0.0
6.721   2.7
6.172   6.0
5.457 10.8
3.355 18.9
2.757 23.4
2.545 28.1
2.481 29.0
1.888 33.0
1.820 37.0
 .000 -1.0
P 22/06/78
7.250   0.0
6.803   2.3
6.298   7.0
5.621 10.1
4.436 14.7
3.656 19.2
2.485 29.0
1.890 33.0
1.820 37.0
 .000 -1.0
Q 11/07/78
7.250   0.0
6.804   1.9
6.747   3.2
5.378   9.0
4.479 14.3
2.906 23.9
2.482 29.0
1.891 33.0
1.820 37.0
 .000 -1.0
R 24/07/78
7.250   0.0
7.118   1.0
6.588   5.0
```

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5.833   7.2
4.133  15.7
3.752  19.1
2.481  29.0
1.896  33.0
1.820  37.0
 .000  -1.0
S 08/08/78
7.250   0.0
6.516   4.4
5.783   7.2
4.190  14.9
3.672  19.3
2.478  29.0
1.892  33.0
1.820  37.0
 .000  -1.0
T 21/08/78
7.250   0.0
6.794   3.6
6.524   5.6
5.149   9.4
4.288  14.7
3.570  19.7
2.532  27.5
2.483  29.0
1.888  33.0
1.820  37.0
 .000  -1.0
U 06/09/78
7.250   0.0
6.769   2.8
6.214   6.7
5.121   9.0
4.191  15.2
3.288  20.1
2.512  27.5
2.482  29.0
1.886  33.0
1.820  37.0
 .000  -1.0
V 20/09/78
7.250   0.0
6.747   3.3
6.184   6.1
4.584  11.5
4.298  13.2
3.871  16.3
3.248  21.6
2.513  27.3
2.481  29.0
1.892  33.0
1.820  37.0
 .000  -1.0
W 06/10/78
7.250   0.0
7.078   3.1
6.903   4.0
6.305   8.6
4.558  10.9
3.965  18.6
3.593  22.1
2.895  26.7
2.479  29.0
1.888  33.0
1.820  37.0
```

```
 .000  -1.0
X 20/10/78
7.250   0.0
6.825   3.5
6.283   6.0
4.167  15.0
3.485  20.9
2.688  27.5
2.492  29.0
1.889  33.0
1.820  37.0
 .000  -1.0
Y 14/12/78
7.250   0.0
6.715   2.0
5.935   4.0
5.560   9.0
3.855  15.0
2.515  27.5
1.905  32.5
1.820  37.0
 .000  -1.0
Z 18/01/79
7.250   0.0
6.949   1.7
6.318   4.7
4.781  11.8
3.720  16.6
2.695  25.6
1.913  33.5
1.820  37.0
 .000  -1.0
AA26/02/79
7.250   0.0
6.612   2.0
6.322   4.6
6.142   8.6
4.837  13.1
3.738  17.3
2.531  24.8
2.168  28.8
1.820  37.0
 .000  -1.0
BB16/08/79
7.250   0.0
6.315   4.2
4.171  14.3
3.911  17.3
3.150  20.9
2.509  27.2
1.838  30.7
1.820  37.0
 .000  -1.0
*
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NASH 2
 0.0  1.0 1.0
 40.0 10.0 10.0
A 14/11/77
7.401  0.0
6.483  3.6
5.781  7.2
4.460 16.9
4.279 21.0
3.102 32.2
2.397 36.1
1.338 40.0
 .000 -1.0
B 25/11/77
8.231  0.0
7.331  1.5
6.102  4.1
6.258  7.1
4.612 12.8
3.154 25.2
2.178 35.7
1.338 40.0
 .000 -1.0
C 13/12/77
8.263  0.0
7.897  1.2
7.601  2.2
7.020  3.7
6.024  8.0
5.151 12.3
4.043 20.2
3.058 27.9
2.143 32.9
1.338 40.0
 .000 -1.0
D 28/12/77
8.500  0.0
7.885  2.8
7.265  6.0
6.190  7.8
5.970 10.0
4.315 16.0
3.574 21.1
2.892 29.0
1.670 36.2
1.338 40.0
 .000 -1.0
E 13/01/78
8.296  0.0
7.549  3.1
6.747  5.4
5.607 10.8
4.492 17.4
3.854 27.1
3.230 31.9
2.905 36.1
1.338 40.0
 .000 -1.0
F 26/01/78
7.465  0.0
6.944  2.7
6.230  5.9
5.378  8.4
5.503 10.7
4.724 12.6
4.213 15.9
3.045 26.1
2.287 31.2
1.625 37.1
1.338 40.0
 .000 -1.0
G 10/02/78
6.082  0.0
4.777  9.5
3.758 15.9
3.437 19.9
2.043 31.5
1.562 35.1
1.338 40.0
 .000 -1.0
H 27/02/78
7.340  0.0
7.473  4.4
6.930  8.2
6.490 10.0
5.583 14.0
4.257 17.5
3.533 20.0
3.093 21.8
2.730 26.3
1.931 33.9
1.727 35.2
1.494 38.8
1.338 40.0
 .000 -1.0
I 09/03/78
7.340  0.0
7.032  2.7
7.257  4.8
7.412  9.2
5.170 14.9
4.043 20.4
2.531 28.8
1.780 34.1
1.338 40.0
 .000 -1.0
J 29/03/78
7.340  0.0
7.492  2.1
7.520  5.7
5.157 13.7
3.764 20.6
2.457 30.1
1.515 38.0
1.338 40.0
 .000 -1.0
K 10/04/78
7.340  0.0
7.128  5.0
6.941  6.6
5.818  9.7
4.909 14.8
4.616 17.1
3.462 24.5
1.764 34.6
1.338 40.0
 .000 -1.0
L 24/04/78
7.340  0.0
7.211  5.7
6.958  6.5
5.624 10.9
4.864 14.3
4.361 17.4
3.589 22.6
2.488 31.4
1.513 37.8
1.338 40.0
 .000 -1.0
M 08/05/78
7.340  0.0
7.212  4.3
7.076  6.4
5.707 10.4
4.572 15.8
3.436 22.8
2.464 29.8
1.693 35.2
1.548 36.9
1.338 40.0
 .000 -1.0
N 24/05/78
7.340  0.0
7.006  6.2
4.466 16.6
3.299 24.0
1.940 33.4
1.338 40.0
 .000 -1.0
O 09/06/78
7.340  0.0
7.010  6.4
5.351 11.3
4.678 16.2
3.594 21.4
1.915 34.5
1.338 40.0
 .000 -1.0
P 22/06/78
7.340  0.0
7.032  6.2
5.970  8.1
4.618 15.4
4.326 17.2
3.720 21.5
2.324 30.5
1.518 38.6
1.338 40.0
 .000 -1.0
Q 11/07/78
7.340  0.0
7.015  5.8
5.997  7.8
4.787 12.3
4.593 15.7
4.353 16.7
3.920 20.7
3.093 23.6
2.395 31.7
1.455 38.6
1.338 40.0
 .000 -1.0
R 24/07/78
7.340  0.0
7.045  6.2
6.103  8.5
4.670 14.7
3.712 21.6
```

2.199	32.5
1.478	38.2
1.338	40.0
.000	-1.0
S 08/08/78	
7.340	0.0
7.025	6.2
5.880	9.8
5.150	10.9
4.772	14.9
3.848	20.8
2.387	33.0
1.338	40.0
.000	-1.0
T 21/08/78	
7.340	0.0
7.015	6.1
5.768	9.2
4.793	13.9
4.197	18.1
2.382	32.9
1.338	40.0
.000	-1.0
U 06/09/78	
7.340	0.0
7.020	6.1
5.497	9.2
4.953	12.5
3.963	19.0
3.197	24.8
2.129	33.8
1.796	36.9
1.338	40.0
.000	-1.0
V 20/09/78	
7.340	0.0
7.020	6.0
6.820	6.9
5.395	10.5
4.812	13.2
4.035	17.2
2.688	29.9
1.969	36.1
1.338	40.0
.000	-1.0
W 06/10/78	
7.340	0.0
7.090	5.0
7.100	7.0
6.814	8.0
6.506	10.3
5.555	10.6
4.860	13.4
3.899	20.7
3.145	25.7
2.337	35.5
1.338	40.0
.000	-1.0
X 20/10/78	
7.340	0.0
7.013	4.8
5.856	8.0
5.130	10.5
4.427	14.2
4.006	18.4
3.234	25.0
2.145	33.2
1.338	40.0
.000	-1.0
Y 14/12/78	
8.415	0.0
8.075	2.0
6.760	5.0
6.115	7.5
4.460	21.0
3.985	23.0
3.340	27.0
2.455	33.5
1.338	40.0
.000	-1.0
Z 18/01/79	
8.155	0.0
7.683	4.0
6.168	6.5
6.028	7.9
5.158	11.7
5.247	15.7
2.678	24.1
1.883	32.1
1.338	40.0
.000	-1.0
AA26/02/79	
8.264	0.0
7.461	3.3
6.827	5.9
6.217	11.3
4.793	14.8
4.297	16.9
2.968	23.3
2.040	26.8
1.338	40.0
.000	-1.0
BB16/08/79	
8.706	0.0
8.219	2.8
8.300	4.8
7.536	6.0
6.251	9.9
5.639	12.3
4.850	16.5
4.347	22.6
3.514	25.1
2.559	30.8
2.029	35.0
1.338	40.0
.000	-1.0
*	

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NASH 3
 0.0  1.0  1.0
 38.0 10.0 10.0
A 14/11/77
8.322  0.0
7.547  4.2
7.164  6.6
6.086 11.1
5.751 12.8
3.704 20.3
3.019 24.2
1.790 31.3
1.150 38.0
 .000 -1.0
B 25/11/77
8.038  0.0
6.876  2.1
6.334  5.4
6.053  9.6
5.284 14.4
4.573 16.1
3.276 20.9
1.853 32.6
1.428 36.5
1.150 38.0
 .000 -1.0
C 13/12/77
9.264  0.0
8.789  2.7
7.930  4.7
7.425  6.7
7.529  8.6
6.731 10.1
4.547 17.4
2.937 25.7
2.592 28.9
1.762 33.8
1.150 38.0
 .000 -1.0
D 28/12/77
8.637  0.0
8.397  0.5
7.652  2.4
7.067  4.4
7.193  5.6
6.032  7.9
5.555  9.5
4.434 14.1
3.475 19.4
2.900 22.5
2.230 26.5
1.680 32.7
1.182 35.3
1.150 38.0
 .000 -1.0
E 13/01/78
7.505  0.0
6.698  4.5
6.318  7.4
6.267  9.3
5.937 10.6
4.431 15.6
3.995 17.5
2.849 23.1
2.025 29.6
1.813 30.6
1.150 38.0
 .000 -1.0
F 26/01/78
7.431  0.0
6.867  1.3
6.760  4.9
6.583  6.9
7.005  9.3
5.946 10.6
4.953 13.3
3.691 19.8
2.300 27.7
1.776 30.8
1.150 38.0
 .000 -1.0
G 10/02/78
7.477  0.0
7.144  2.7
7.087  7.7
6.209 10.6
5.560 12.1
3.287 25.7
2.787 31.2
1.150 38.0
 .000 -1.0
H 27/02/78
9.549  0.0
8.552  3.1
8.127  4.6
6.108 12.0
4.786 17.0
2.893 25.6
2.109 29.4
1.150 38.0
 .000 -1.0
I 09/03/78
9.529  0.0
8.991  1.6
8.455  3.4
8.256  5.0
5.976 11.3
5.183 13.6
4.608 15.8
3.770 20.2
2.916 26.1
2.072 28.2
1.150 38.0
 .000 -1.0
J 29/03/78
8.011  0.0
7.606  3.2
6.784  7.0
5.198 14.4
3.567 19.2
1.996 30.7
1.396 34.9
1.150 38.0
 .000 -1.0
K 10/04/78
7.694  0.0
6.605  3.8
6.057  9.0
5.723 10.9
4.385 13.9
3.124 25.5
1.738 28.0
1.150 38.0
 .000 -1.0
L 24/04/78
8.899  0.0
7.979  2.1
6.887  7.2
6.522  8.7
6.297 10.8
5.493 13.4
4.243 18.7
3.344 23.7
1.773 32.7
1.150 38.0
 .000 -1.0
M 08/05/78
8.468  0.0
7.750  3.1
6.870  5.7
6.712  6.9
6.456 10.4
5.326 15.0
3.642 20.6
2.790 26.4
1.944 31.1
1.721 32.1
1.150 38.0
 .000 -1.0
N 24/05/78
8.340  0.0
7.502  4.0
6.692  8.0
4.962 13.9
3.473 22.3
2.040 30.3
1.150 38.0
 .000 -1.0
O 07/06/78
8.338  0.0
7.542  4.3
6.695  8.3
5.734 10.7
5.439 11.8
4.807 13.8
3.308 22.7
2.201 30.4
1.502 36.1
1.150 38.0
 .000 -1.0
P 22/06/78
8.313  0.0
7.477  3.6
7.126  4.8
5.915  9.0
4.993 13.5
3.925 18.6
2.395 28.7
1.781 32.7
1.150 38.0
 .000 -1.0
Q 11/07/78
8.321  0.0
7.880  2.3
7.321  4.5
6.626  5.7
5.951  8.5
5.403 10.2
```

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5.470 12.1
5.089 13.8
3.972 19.8
2.880 24.9
1.831 30.8
1.150 38.0
 .000 -1.0
R 24/07/78
8.899  0.0
7.685  2.0
6.893  4.4
5.922 10.9
5.185 12.0
3.400 17.4
2.426 27.5
1.450 34.6
1.150 38.0
 .000 -1.0
S 08/08/78
8.899  0.0
7.504  1.9
6.841  4.0
6.014 10.6
6.067 12.4
5.095 14.2
3.851 18.2
3.329 22.1
2.022 32.9
1.150 38.0
 .000 -1.0
T 21/08/78
8.899  0.0
7.550  1.8
6.835  4.0
6.737  5.0
6.068  7.6
5.678 10.1
5.174 12.7
3.703 20.8
2.832 26.0
2.309 29.5
1.765 33.0
1.150 38.0
 .000 -1.0
U 06/09/78
8.899  0.0
7.507  2.0
6.897  4.4
6.483  6.2
6.068  9.9
5.126 13.0
4.426 16.4
3.902 18.9
2.129 30.7
1.862 33.5
1.150 38.0
 .000 -1.0
V 20/09/78
8.899  0.0
7.507  2.0
6.614  4.2
6.071  6.9
4.899 12.6
3.851 18.0
2.905 24.4
2.134 28.8
```

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1.818 33.0
1.150 38.0
 .000 -1.0
W 06/10/78
8.899  0.0
7.507  2.0
6.614  4.2
6.128  9.0
5.463 10.1
4.858 15.3
3.706 20.6
3.350 22.9
2.126 33.6
1.150 38.0
 .000 -1.0
X 20/10/78
8.899  0.0
7.507  2.0
6.614  4.2
6.210  5.7
5.523 11.7
5.568 12.8
5.211 13.5
5.129 14.2
4.457 15.8
3.687 19.8
2.291 30.5
1.483 36.8
1.150 38.0
 .000 -1.0
Y 14/12/78
8.899  0.0
8.160  1.2
8.040  2.2
7.415  3.2
5.165 13.2
4.115 20.0
3.560 24.2
2.170 34.2
1.150 38.0
 .000 -1.0
Z 18/01/79
8.190  0.0
7.795  5.0
7.377  7.2
6.540  8.1
5.032 14.8
4.082 17.8
1.780 30.8
1.150 38.0
 .000 -1.0
AA26/02/79
8.415  0.0
7.849  2.6
7.518  7.3
7.313  8.1
5.558 12.2
4.866 14.9
3.720 20.2
2.589 26.7
2.073 29.1
1.150 38.0
 .000 -1.0
BB16/08/79
8.890  0.0
7.706  3.0
```

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6.647  5.6
5.850  7.8
4.460 16.1
3.953 22.0
3.936 24.2
3.277 28.0
2.329 33.0
1.150 38.0
 .000 -1.0
*
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NASH 4
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 34.0  10.0  10.0
A 11/11/77
8.724   0.0
7.784   2.5
7.405   3.8
6.400   5.8
5.440   9.5
3.922  16.5
1.877  29.2
1.690  34.0
 .000  -1.0
B 25/11/77
8.346   0.0
7.631   1.0
7.265   2.7
7.200   4.7
6.193   7.8
5.805  10.6
5.274  13.3
4.053  18.4
2.019  31.2
1.690  34.0
 .000  -1.0
C 13/12/77
8.475   0.0
8.027   1.4
7.049   4.3
6.448   6.3
5.070  12.6
4.566  15.0
3.491  21.2
2.056  29.1
1.690  34.0
 .000  -1.0
D 28/12/77
8.085   0.0
8.050   1.5
7.015   3.2
6.530   4.9
5.923   7.7
4.930  12.2
4.360  15.2
3.193  21.7
2.203  26.0
1.690  34.0
 .000  -1.0
E 13/01/78
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8.037   1.6
6.925   5.1
6.384   7.5
4.900  14.0
4.404  15.3
3.417  21.8
2.374  26.5
1.690  34.0
 .000  -1.0
F 26/01/78
8.458   0.0
8.225   1.9
8.045   2.9
6.845   5.3
6.026   7.9
4.647  14.1
4.054  17.2
2.464  28.8
2.113  31.5
1.690  34.0
 .000  -1.0
G 10/02/78
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7.092   6.3
6.306   8.1
5.045  14.8
3.694  22.3
2.822  27.1
1.690  34.0
 .000  -1.0
H 27/02/78
9.065   0.0
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6.642   8.7
5.188  12.2
4.536  15.2
3.894  18.5
3.077  23.6
1.699  29.7
1.690  34.0
 .000  -1.0
I 09/03/78
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7.316   3.5
4.615  14.0
3.354  22.0
2.527  25.5
1.690  34.0
 .000  -1.0
J 29/03/78
8.739   0.0
8.182   0.4
8.543   2.0
7.053   3.5
5.154  11.1
3.818  17.5
2.586  26.1
1.690  34.0
 .000  -1.0
K 10/04/78
8.639   0.0
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7.672   5.6
6.700   7.9
6.403   8.9
5.390  11.3
4.120  16.3
3.184  22.0
1.762  30.8
1.690  34.0
 .000  -1.0
L 24/04/78
8.721   0.0
8.049   2.7
7.419   3.6
7.156   5.3
5.621   9.6
5.302  11.2
3.986  17.9
2.764  23.5
1.876  30.7
1.690  34.0
 .000  -1.0
M 08/05/78
8.800   0.0
8.304   1.1
7.830   2.3
7.351   3.4
6.737   6.2
4.848  12.1
3.818  17.4
3.110  21.5
2.369  24.6
1.841  29.6
1.690  34.0
 .000  -1.0
N 24/05/78
8.768   0.0
8.150   2.4
7.939   3.4
5.253  11.1
4.031  17.2
2.135  28.0
1.690  34.0
 .000  -1.0
O 07/06/78
8.784   0.0
8.667   1.2
8.125   2.7
7.891   4.1
7.217   5.5
6.313   7.1
6.207   8.4
5.068  11.7
4.132  15.6
3.631  18.4
2.230  28.0
1.690  34.0
 .000  -1.0
P 22/06/78
8.814   0.0
7.649   2.4
7.071   4.1
6.777   6.0
5.167  11.5
4.115  17.0
2.452  27.0
1.690  34.0
 .000  -1.0
Q 11/07/78
8.901   0.0
8.526   0.7
7.848   1.7
6.762   4.6
6.137   6.6
6.091   8.3
5.845  10.1
5.923  11.1
4.991  14.2
3.633  19.2
2.653  24.3
2.138  27.1
1.690  34.0
 .000  -1.0
R 24/07/78
8.395   0.0
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6.901	5.5
5.021	11.9
4.422	14.8
4.671	19.9
2.133	28.8
1.690	34.0
.000	-1.0
S 08/08/78	
8.441	0.0
7.395	3.1
6.968	5.8
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5.760	10.0
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4.306	16.3
3.689	20.3
2.692	27.8
1.690	34.0
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T 21/08/78	
8.675	0.0
8.104	1.2
7.899	2.8
6.122	7.2
5.098	11.7
3.807	19.5
2.888	24.2
2.188	28.8
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U 06/09/78	
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5.218	10.2
4.095	15.7
3.478	18.0
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1.690	34.0
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V 20/09/78	
8.791	0.0
8.537	0.6
7.931	1.8
7.446	3.1
5.320	10.0
4.841	13.0
4.435	15.3
3.825	18.1
2.695	25.6
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W 06/10/78	
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8.291	1.0
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7.176	3.6
6.937	4.4
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6.166	7.1
6.215	7.6
4.976	11.5
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X 20/10/78	
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6.327	6.2
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5.836	9.9
5.746	11.0
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4.131	15.9
3.459	21.1
2.322	27.9
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Y 14/12/78	
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Z 18/01/79	
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6.595	7.8
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5.237	15.4
3.677	20.2
2.582	25.5
1.880	32.3
1.690	34.0
.000	-1.0
*	

```
C.M. GILESTON
 0.0  1.0 1.0
40.0 10.0 10.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.166 12.9
5.461 17.2
4.829 21.1
4.793 21.7
4.157 25.3
3.820 27.7
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
0.000 -1.0
ABER 2
8.661  0.0
8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.457 11.1
6.216 13.8
5.635 15.7
4.751 19.8
3.439 29.0
3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
8.294  0.0
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7.336  4.0
6.947  6.0
6.655  9.4
6.028 11.4
4.592 16.9
3.969 20.6
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
6.853 10.1
5.822 12.7
4.726 17.9
3.645 26.4
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.156 11.5
4.618 20.2
3.746 25.8
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
5.861 11.8
5.067 16.5
3.542 28.0
3.372 30.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.153 12.9
4.108 23.7
3.520 27.7
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
8.661  0.0
8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.307 13.8
4.982 18.7
3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
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ABER 3
8.294  0.0
7.972  2.0
7.336  4.0
6.947  6.0
6.749  6.9
6.714  8.7
5.904 11.1
4.647 16.7
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.502  2.0
8.158  4.0
7.668  6.0
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4.667 18.5
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2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
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8.028  6.0
7.564  8.0
6.939 10.0
6.387 11.7
4.874 17.5
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
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2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
```

```
8.195  6.0
7.713  8.0
6.905 10.0
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3.542 28.0
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3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
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8.326  4.0
8.143  6.0
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7.073 10.0
6.428 12.0
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ABER 2
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6.705 10.0
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2.491 38.0
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ABER 3
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7.336  4.0
6.947  6.0
5.800 12.3
5.120 13.9
4.357 17.9
3.595 24.3
3.058 28.0
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.158  4.0
7.668  6.0
7.243  8.0
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2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.335 11.1
5.345 15.0
4.584 19.5
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
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5.456 16.2
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3.202 32.0
3.033 34.0
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 .000 -1.0
ABER 1
8.525  0.0
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8.326  4.0
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ABER 2
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ABER 3
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6.947  6.0
6.771  8.0
5.331 11.8
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3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
8.703  0.0
8.502  2.0
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7.668  6.0
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5.263 14.6
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3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
3.674  0.0
3.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.387 10.8
5.643 14.3
5.091 18.4
3.416 28.0
```

```
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
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 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
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3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
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7.933  8.0
7.073 10.0
6.428 12.0
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3.050 32.0
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 .000 -1.0
ABER 2
8.661  0.0
8.407  2.0
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6.705 10.0
6.514 11.7
5.566 15.1
5.063 18.6
4.258 22.5
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3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
8.294  0.0
7.972  2.0
7.336  4.0
6.947  6.0
6.710  7.9
5.026 12.7
4.433 16.6
3.561 21.8
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
8.703  0.0
8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
5.544 13.6
4.803 17.3
4.327 20.5
3.647 23.6
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.002 12.3
4.872 18.5
4.213 22.1
3.510 26.1
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
6.384 10.9
5.717 15.4
5.142 17.2
4.270 22.6
3.666 25.0
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.380 13.4
5.845 15.0
5.275 18.4
4.226 23.5
3.422 28.0
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
8.661  0.0
8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.613 11.4
5.452 15.0
4.676 19.8
3.710 24.6
3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
8.294  0.0
7.972  2.0
7.336  4.0
6.947  6.0
6.865  7.1
5.482 10.6
4.790 14.1
4.096 18.1
3.408 21.9
3.058 28.0
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.158  4.0
7.668  6.0
7.243  8.0
5.887 11.8
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5.011 15.9
4.516 19.4
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2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
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2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
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8.195  6.0
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6.905 10.0
6.307 11.0
5.703 15.8
5.016 18.0
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3.942 23.9
3.542 28.0
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3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
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ABER 1
8.525  0.0
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8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.400 13.1
5.809 15.2
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2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
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7.034  8.0
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4.968 17.5
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2.661 36.0
2.491 38.0
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ABER 3
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6.862  7.1
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4.640 15.2
3.607 21.9
3.058 28.0
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
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ABER 4
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7.668  6.0
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4.208 21.4
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2.655 36.0
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3.409 26.4
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3.072 32.0
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2.736 36.0
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ABER 6
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2.679 38.0
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ABER 1
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8.143  6.0
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7.073 10.0
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5.834 15.3
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2.584 36.0
2.405 38.0
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ABER 2
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2.661 36.0
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5.102 12.8
4.551 15.5
4.251 18.1
3.490 21.3
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
6.154 10.8
5.223 14.8
4.865 17.2
4.361 20.7
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.031 12.2
5.048 16.7
4.841 19.3
3.948 23.7
3.416 28.0
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3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
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 .000 -1.0
ABER 6
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8.195  6.0
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6.430 11.7
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5.007 18.0
4.719 20.7
4.321 22.6
3.552 26.0
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
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8.326  4.0
8.143  6.0
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7.073 10.0
6.428 12.0
6.360 13.0
5.647 16.1
5.127 18.6
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2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
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3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
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ABER 3
8.294  0.0
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7.336  4.0
6.947  6.0
6.872  7.5
5.541 10.8
4.955 13.9
4.335 16.9
3.929 20.2
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3.058 28.0
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2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
8.703  0.0
8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
5.781 11.9
5.213 14.7
4.711 17.5
4.600 19.5
4.095 21.8
3.533 24.3
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
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8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.174 11.7
5.859 13.7
4.945 17.4
4.665 20.5
4.266 22.9
3.499 26.5
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3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
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8.195  6.0
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6.905 10.0
6.225 11.6
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5.021 18.9
4.405 23.0
3.600 26.0
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
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ABER 1
8.525   0.0
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8.326   4.0
8.143   6.0
7.933   8.0
7.073  10.0
6.428  12.0
6.458  13.2
6.008  14.4
5.426  17.3
5.098  19.5
4.342  23.4
3.602  27.8
3.050  32.0
2.816  34.0
2.584  36.0
2.405  38.0
2.277  40.0
 .000  -1.0
ABER 2
8.661   0.0
8.407   2.0
8.145   4.0
7.830   6.0
7.034   8.0
6.705  10.0
6.574  11.6
5.540  14.9
5.124  17.5
4.801  19.6
3.985  23.7
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3.011  32.0
2.835  34.0
2.661  36.0
2.491  38.0
2.338  40.0
 .000  -1.0
ABER 3
8.294   0.0
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7.336   4.0
6.947   6.0
6.840   7.2
5.682  10.3
5.057  13.4
4.583  16.0
3.889  19.6
3.120  25.8
3.058  28.0
2.878  30.0
2.703  32.0
2.558  34.0
2.438  36.0
2.339  38.0
2.242  40.0
 .000  -1.0
ABER 4
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8.502   2.0
8.158   4.0
7.668   6.0
7.243   8.0
6.156  11.0
5.495  13.4
5.047  17.0
4.644  19.4
4.057  22.5
3.518  25.1
3.323  28.0
3.129  30.0
2.958  32.0
2.805  34.0
2.655  36.0
2.509  38.0
2.363  40.0
 .000  -1.0
ABER 5
8.674   0.0
8.607   2.0
8.491   4.0
8.028   6.0
7.564   8.0
6.939  10.0
6.090  12.2
5.314  15.3
4.924  18.9
4.462  21.2
3.872  24.4
3.425  26.9
3.416  28.0
3.242  30.0
3.072  32.0
2.902  34.0
2.736  36.0
2.575  38.0
2.416  40.0
 .000  -1.0
ABER 6
8.538   0.0
8.647   2.0
8.601   4.0
8.195   6.0
7.713   8.0
6.905  10.0
6.214  11.6
5.690  15.8
5.004  17.9
4.857  20.0
4.232  23.0
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3.542  28.0
3.372  30.0
3.202  32.0
3.033  34.0
2.866  36.0
2.679  38.0
2.485  40.0
 .000  -1.0
ABER 1
8.525   0.0
8.438   2.0
8.326   4.0
8.143   6.0
7.933   8.0
7.073  10.0
6.428  12.0
6.386  12.7
5.982  14.2
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5.085  19.3
4.561  22.1
3.956  25.8
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2.816  34.0
2.584  36.0
2.405  38.0
2.277  40.0
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ABER 2
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6.571 11.0
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4.128 22.5
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3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
.000 -1.0
ABER 3
8.294 0.0
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7.336 4.0
6.947 6.0
6.875 7.5
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5.006 13.1
4.561 15.9
4.096 19.3
3.452 22.5
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
.000 -1.0
ABER 4
8.703 0.0
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8.158 4.0
7.668 6.0
7.243 8.0
7.062 8.2
6.090 10.9
5.423 12.8
4.708 17.2
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2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
.000 -1.0
ABER 5
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8.028 6.0
7.564 8.0
6.939 10.0
6.014 12.1
5.373 14.9
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3.890 23.6
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3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
.000 -1.0
ABER 6
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7.713 8.0
6.905 10.0
6.155 11.8
5.703 15.3
5.128 17.0
4.955 19.0
4.649 21.3
4.376 22.8
3.696 25.3
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
.000 -1.0
ABER 1
8.525 0.0
8.438 2.0
8.326 4.0
8.143 6.0
7.933 8.0
7.073 10.0
6.428 12.0
6.398 13.0
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4.401 22.9
3.050 32.0
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2.405 38.0
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.000 -1.0
ABER 2
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2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
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ABER 3
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5.212 12.2
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4.307 18.1
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2.438 36.0
2.339 38.0
2.242 40.0
.000 -1.0
ABER 4
8.703 0.0
8.502 2.0
8.158 4.0
7.668 6.0
7.243 8.0
6.227 10.9
5.451 13.9
4.873 16.9
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3.511 23.4
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
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2.509 38.0
2.363 40.0
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ABER 5
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3.416 28.0
3.242 30.0
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2.902 34.0
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2.416 40.0
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ABER 6
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8.647  2.0
8.601  4.0
8.195  6.0
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5.669 15.5
5.157 16.8
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3.372 30.0
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3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
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ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.390 13.0
5.833 15.1
5.389 18.1
4.966 20.3
4.366 23.6
3.050 32.0
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2.584 36.0
2.405 38.0
2.277 40.0
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ABER 2
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8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.603 11.0
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5.210 16.2
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2.491 38.0
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ABER 3
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7.336  4.0
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4.715 15.9
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2.339 38.0
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ABER 4
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7.668  6.0
7.243  8.0
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5.156 15.1
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4.234 20.9
3.580 24.3
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2.655 36.0
2.509 38.0
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ABER 5
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8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.002 12.0
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4.098 23.7
3.466 25.8
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2.575 38.0
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ABER 6
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3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
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2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
8.294  0.0
7.972  2.0
7.336  4.0
6.947  6.0
6.848  8.3
5.734 11.3
5.158 13.0
4.475 16.3
4.242 18.7
3.549 22.9
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
8.703  0.0
8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
6.099 11.0
5.414 14.1
4.944 16.8
4.626 18.9
3.915 22.7
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
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8.028  6.0
7.564  8.0
6.939 10.0
5.045 16.5
4.633 19.7
4.160 22.3
3.441 25.9
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
6.337 11.3
5.941 13.5
5.741 16.2
5.168 17.6
4.927 19.7
4.489 22.2
3.945 25.0
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.415 12.9
5.995 14.6
5.335 18.1
4.695 21.4
4.380 23.4
3.986 25.6
3.430 29.5
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
8.661  0.0
8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.402 12.0
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5.626 14.8
4.956 18.3
4.473 21.2
4.033 23.7
3.505 26.7
3.269 29.1
3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
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7.336  4.0
6.947  6.0
6.812  7.0
6.299  8.0
5.744  9.4
4.964 12.3
4.509 16.0
4.109 18.7
3.755 21.7
3.565 23.7
3.363 25.2
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
8.703  0.0
8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
6.516 10.2
5.738 12.4
5.211 14.8
4.628 18.4
4.024 22.3
3.940 23.6
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
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6.939 10.0
6.487 10.9
5.731 13.0
5.093 16.5
4.734 19.6
4.103 23.0
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3.855 25.8
3.416 28.0
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3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
6.483 11.0
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5.444 14.8
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4.207 22.3
3.843 26.1
3.542 28.0
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3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.308 14.0
5.182 19.6
4.830 21.1
4.314 24.4
3.416 29.4
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
8.661  0.0
8.407  2.0
8.145  4.0
7.830  6.0
7.034  8.0
6.705 10.0
6.645 11.0
5.883 14.0
4.755 19.6
4.442 21.6
3.651 26.2
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3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
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7.336  4.0
6.947  6.0
6.284  7.9
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4.324 17.6
3.691 22.8
3.058 28.0
2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
 .000 -1.0
ABER 4
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8.502  2.0
8.158  4.0
7.668  6.0
7.243  8.0
6.034 11.4
5.223 14.4
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4.035 22.2
3.936 23.6
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
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8.028  6.0
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6.939 10.0
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5.302 15.5
4.754 19.8
4.094 22.2
4.003 24.2
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
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8.195  6.0
7.713  8.0
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6.295 13.0
5.610 14.9
4.965 18.8
4.210 23.1
4.002 25.8
3.542 28.0
3.372 30.0
3.202 32.0
3.033 34.0
2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
ABER 1
8.525  0.0
8.438  2.0
8.326  4.0
8.143  6.0
7.933  8.0
7.073 10.0
6.428 12.0
6.180 13.1
5.530 17.4
5.135 19.6
4.725 21.9
3.933 26.6
3.050 32.0
2.816 34.0
2.584 36.0
2.405 38.0
2.277 40.0
 .000 -1.0
ABER 2
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6.041 12.3
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4.539 20.4
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3.011 32.0
2.835 34.0
2.661 36.0
2.491 38.0
2.338 40.0
 .000 -1.0
ABER 3
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7.336  4.0
6.947  6.0
5.972  9.2
5.413 11.8
4.884 14.3
4.516 16.7
3.735 21.6
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2.878 30.0
2.703 32.0
2.558 34.0
2.438 36.0
2.339 38.0
2.242 40.0
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 .000 -1.0
ABER 4
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7.668  6.0
7.243  8.0
6.560  9.4
5.820 12.1
5.353 15.3
4.649 18.9
3.878 23.5
3.323 28.0
3.129 30.0
2.958 32.0
2.805 34.0
2.655 36.0
2.509 38.0
2.363 40.0
 .000 -1.0
ABER 5
8.674  0.0
8.607  2.0
8.491  4.0
8.028  6.0
7.564  8.0
6.939 10.0
6.631 10.3
6.253 11.5
5.774 13.5
5.379 15.0
5.023 17.3
4.512 20.2
4.036 23.3
3.416 28.0
3.242 30.0
3.072 32.0
2.902 34.0
2.736 36.0
2.575 38.0
2.416 40.0
 .000 -1.0
ABER 6
8.538  0.0
8.647  2.0
8.601  4.0
8.195  6.0
7.713  8.0
6.905 10.0
6.121 12.1
5.596 14.7
5.235 16.9
4.803 19.6
4.121 23.6
3.542 28.0
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3.202 32.0
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2.866 36.0
2.679 38.0
2.485 40.0
 .000 -1.0
END
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C.M. NASH
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40.0 10.0 10.0
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7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
5.570 10.6
5.154 12.9
4.706 15.6
3.920 19.5
3.265 23.5
2.685 26.5
1.951 27.9
1.492 33.9
1.315 36.3
1.356 38.0
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NASH 2
8.149  0.0
7.761  2.0
7.275  4.0
6.845  6.0
6.461  8.0
6.270  9.4
5.105 15.2
4.440 18.3
3.943 21.4
3.339 24.4
2.887 27.4
1.832 32.0
1.350 35.4
1.480 38.0
 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
6.052 10.1
5.113 14.7
4.372 19.2
3.770 22.7
3.053 26.9
2.434 28.6
1.732 33.0
1.401 34.3
1.537 38.0
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NASH 4
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8.500  1.0
8.340  2.0
8.200  3.0
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6.717  6.6
5.885  9.2
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3.325 22.3
2.748 26.7
1.834 29.6
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.220 12.0
5.394 15.6
4.914 18.1
3.773 23.8
2.935 28.1
2.170 32.4
1.902 33.1
1.609 35.0
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
4.984 18.4
3.780 24.4
3.354 26.5
3.062 28.5
2.344 32.1
1.827 34.3
1.850 36.0
 .000 -1.0
NASH 1
8.565  0.0
7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
5.922  8.7
5.295 12.4
4.801 14.6
3.924 19.3
3.483 22.0
2.796 26.2
2.018 29.4
1.309 35.6
1.356 38.0
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NASH 2
8.149  0.0
7.761  2.0
7.275  4.0
6.845  6.0
6.461  8.0
5.337 12.8
4.430 17.7
3.970 21.1
3.518 23.3
2.903 27.0
2.312 29.2
1.965 30.8
1.345 35.2
1.480 38.0
 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.917 11.3
5.084 15.8
4.188 20.8
3.696 23.6
3.207 26.3
2.621 29.5
1.644 33.2
1.401 35.8
1.537 38.0
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NASH 4
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8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.453  4.6
6.855  6.3
6.519  7.7
6.153  8.7
5.405 11.7
4.320 17.2
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1.835 29.5
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.911 10.5
6.521 12.0
5.228 16.8
3.690 24.2
2.755 29.1
1.898 33.4
1.658 35.2
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.414 16.0
4.739 19.2
4.080 22.5
3.517 25.4
2.608 30.5
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2.257 31.7
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NASH 1
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6.709  6.0
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NASH 2
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6.845  6.0
6.461  8.0
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 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.623 11.8
5.184 14.8
4.267 20.5
3.849 22.8
3.121 26.7
2.728 28.9
1.961 32.5
1.411 35.9
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.149  5.4
6.091  9.2
5.602 11.2
5.064 13.9
4.226 18.1
3.349 22.6
2.794 25.8
1.840 30.2
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.911 10.5
6.472 11.8
6.241 12.5
6.021 13.7
5.337 16.2
4.277 22.1
3.572 25.2
3.050 27.8
2.287 31.8
1.660 35.2
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.163 15.4
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3.834 24.1
3.090 29.6
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1.885 33.3
1.850 36.0
 .000 -1.0
NASH 1
8.565  0.0
7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
5.921 10.1
5.214 13.1
4.618 16.1
4.004 19.9
3.417 23.4
2.850 26.5
1.852 31.8
1.292 36.0
1.356 38.0
 .000 -1.0
NASH 2
8.149  0.0
7.761  2.0
7.275  4.0
6.845  6.0
6.461  8.0
6.108  9.2
5.400 12.7
4.818 16.4
3.962 20.8
3.542 23.6
3.086 26.3
2.019 31.5
1.356 35.5
1.480 38.0
 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.475 13.6
4.808 17.5
4.213 20.6
3.496 24.4
2.955 27.2
1.922 33.1
1.403 35.2
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.294  5.7
6.534  7.7
6.034  9.6
5.576 11.6
4.800 15.2
4.196 18.4
3.435 22.2
2.705 26.3
1.850 29.6
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.442 11.7
6.190 12.2
6.050 13.3
5.678 14.6
5.138 17.0
4.240 21.4
3.424 25.8
2.455 30.6
1.665 34.5
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.178 17.6
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NASH 1
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7.151  4.0
6.709  6.0
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1.262 36.0
1.356 38.0
 .000 -1.0
NASH 2
8.149  0.0
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7.275  4.0
6.845  6.0
6.461  8.0
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1.373 35.3
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 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.413 13.8
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4.086 21.1
3.376 24.6
2.713 27.9
1.918 32.1
1.398 35.2
1.537 38.0
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NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.305  5.6
6.745  7.0
6.202  8.9
5.534 11.7
5.115 13.5
4.662 15.6
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4.035 19.1
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1.840 29.7
1.947 32.0
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NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.440 12.4
5.505 15.9
5.060 18.1
4.709 19.5
4.326 21.8
3.379 26.4
2. 59 29.5
2.168 32.9
1.643 35.5
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.605 15.2
5.173 17.1
4.216 21.3
3.803 23.7
3.233 26.6
2.516 30.3
1.876 32.7
1.850 36.0
 .000 -1.0
NASH 1
8.565  0.0
7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
5.999  9.6
4.891 14.8
4.542 16.8
4.131 19.3
4.189 21.2
3.567 22.8
2.939 24.9
2.636 26.6
1.855 30.2
1.273 36.1
1.356 38.0
 .000 -1.0
NASH 2
8.149  0.0
7.761  2.0
7.275  4.0
6.845  6.0
6.461  8.0
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3.388 24.0
2.845 26.2
2.323 28.9
1.867 31.7
1.351 35.7
1.480 38.0
 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.808 12.5
5.081 16.4
4.626 19.0
4.293 20.2
4.310 22.2
3.931 23.6
3.079 26.4
2.545 29.2
2.141 31.7
1.768 33.2
1.420 35.8
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.321  5.4
6.512  8.1
6.041  9.5
4.795 15.0
4.179 18.0
4.150 20.1
3.795 21.7
3.068 23.8
2.531 26.1
1.864 29.8
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.487 12.7
6.056 14.2
5.042 18.2
4.599 20.2
4.092 22.7
4.153 24.3
3.733 25.7
3.131 27.5
```

2.620 29.7
2.287 32.0
1.625 35.5
1.645 36.0
.000 -1.0
NASH 6
9.884 0.0
9.553 2.0
8.765 4.0
8.049 6.0
7.773 8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.373 16.1
5.136 17.5
4.657 19.5
4.195 22.0
4.179 23.5
3.758 24.6
3.393 25.8
2.926 28.1
2.354 30.6
1.799 33.6
1.850 36.0
.000 -1.0
NASH 1
8.565 0.0
7.779 2.0
7.151 4.0
6.709 6.0
6.286 8.0
6.006 9.5
5.506 11.6
4.810 15.2
4.356 17.5
4.194 20.3
4.278 20.8
3.672 22.8
2.868 25.3
2.319 28.0
1.780 32.3
1.313 36.3
1.356 38.0
.000 -1.0
NASH 2
8.149 0.0
7.761 2.0
7.275 4.0
6.845 6.0
6.461 8.0
6.136 9.7
5.151 14.5
4.360 18.8
4.233 20.4
4.404 21.2
3.705 23.0
3.218 24.8
2.660 27.4
2.057 30.9
1.366 35.5
1.480 38.0
.000 -1.0
NASH 3
9.475 0.0
8.536 2.0

7.963 4.0
7.310 6.0
6.712 8.0
6.183 10.0
5.740 12.3
5.147 15.6
4.811 17.2
4.608 18.5
4.256 20.4
4.249 21.3
4.375 21.8
3.683 23.6
3.257 25.0
2.404 29.5
1.400 35.6
1.537 38.0
.000 -1.0
NASH 4
8.908 0.0
8.500 1.0
8.340 2.0
8.200 3.0
7.695 4.0
7.365 5.4
6.540 7.7
6.067 9.4
5.136 13.4
4.293 17.4
4.019 19.1
4.206 19.9
3.606 21.6
2.909 24.6
1.865 29.6
1.947 32.0
.000 -1.0
NASH 5
9.987 0.0
9.332 2.0
9.000 4.0
8.251 6.0
7.989 8.0
7.143 10.0
6.879 10.7
6.461 11.8
5.971 13.6
4.903 18.3
4.223 22.0
4.150 23.0
4.236 23.6
3.809 24.6
3.478 25.5
3.143 26.6
2.367 31.1
1.636 35.6
1.645 36.0
.000 -1.0
NASH 6
9.884 0.0
9.553 2.0
8.765 4.0
8.049 6.0
7.773 8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.692 15.3

5.178 17.6
4.361 21.3
4.126 22.4
4.050 23.6
4.165 24.0
3.295 26.4
2.942 28.0
2.211 32.3
1.779 34.6
1.850 36.0
.000 -1.0
NASH 1
8.565 0.0
7.779 2.0
7.151 4.0
6.709 6.0
6.286 8.0
5.999 9.0
5.179 12.8
4.835 14.5
4.433 17.0
4.490 17.8
4.322 18.5
4.447 19.5
3.826 21.2
3.097 23.7
2.697 26.5
1.882 30.8
1.279 36.1
1.356 38.0
.000 -1.0
NASH 2
8.149 0.0
7.761 2.0
7.275 4.0
6.845 6.0
6.461 8.0
5.401 12.8
5.038 14.8
4.568 17.7
4.367 19.9
4.511 20.3
4.083 21.7
3.445 23.3
2.954 25.6
2.431 28.4
1.815 31.6
1.348 35.5
1.480 38.0
.000 -1.0
NASH 3
9.475 0.0
8.536 2.0
7.963 4.0
7.310 6.0
6.712 8.0
6.183 10.0
5.876 11.5
5.144 15.7
4.754 17.4
4.670 18.8
4.447 19.9
4.510 20.9
3.889 22.5
3.459 23.7
2.862 26.9

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2.210 31.0
1.414 35.6
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.205  5.6
6.494  7.6
5.932 10.0
4.986 13.8
4.423 16.1
4.415 16.9
4.263 17.8
4.300 18.5
4.025 20.2
3.225 23.1
2.683 25.6
1.854 29.4
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.334 11.5
5.970 13.1
5.195 16.8
4.569 19.4
4.331 21.7
4.357 22.4
3.960 23.9
3.252 26.1
2.854 28.1
2.323 31.3
1.633 34.6
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.607 15.1
5.139 17.7
4.537 20.7
4.238 21.6
4.245 22.8
3.856 24.6
3.293 26.1
2.938 28.0
2.472 30.9
1.779 34.3
1.850 36.0
 .000 -1.0
NASH 1
8.565  0.0
7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
6.108  8.8
5.180 13.2
4.858 14.8
4.480 17.1
4.750 18.8
4.347 19.5
3.861 21.1
3.324 22.7
2.675 25.8
2.364 28.1
1.948 32.6
1.378 35.3
1.356 38.0
 .000 -1.0
NASH 2
8.149  0.0
7.761  2.0
7.275  4.0
6.845  6.0
6.461  8.0
6.161  9.5
5.320 12.8
5.023 14.7
4.580 17.8
4.746 19.4
4.413 20.3
4.018 21.4
3.090 24.5
2.496 28.6
1.824 32.1
1.413 35.5
1.480 38.0
 .000 -1.0
NASH 3
9.475  0.0
8.536  2.0
7.963  4.0
7.310  6.0
6.712  8.0
6.183 10.0
5.444 14.2
5.104 16.1
4.648 18.4
4.757 20.2
4.425 21.1
4.056 22.1
3.006 25.7
2.470 29.3
1.919 32.2
1.397 35.8
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.200  3.0
7.695  4.0
7.178  5.7
6.510  7.6
6.029  9.3
5.365 12.2
5.000 13.8
4.626 15.7
4.487 16.6
4.501 18.6
4.036 20.2
3.080 23.0
2.735 25.2
1.864 29.7
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.251  6.0
7.989  8.0
7.143 10.0
6.860 10.8
6.410 12.0
5.984 13.3
5.392 16.1
4.713 19.1
4.423 21.4
4.602 22.1
4.186 23.0
4.010 24.0
3.281 25.9
2.554 30.2
2.094 32.8
1.640 34.9
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.049  6.0
7.773  8.0
7.093 10.0
6.411 12.0
5.897 14.0
5.102 17.7
4.704 19.5
4.435 21.2
4.543 22.1
3.990 23.8
3.044 26.8
2.504 30.2
1.769 34.3
1.850 36.0
 .000 -1.0
NASH 1
8.565  0.0
7.779  2.0
7.151  4.0
6.709  6.0
6.286  8.0
6.178  8.9
6.061 10.7
5.440 13.2
4.916 15.4
4.008 18.9
3.286 22.2
2.511 26.3
2.014 29.7
```

1.441 35.1
1.356 38.0
.000 -1.0
NASH 2
8.149 0.0
7.761 2.0
7.275 4.0
6.845 6.0
6.461 8.0
6.200 10.4
5.631 12.2
4.942 15.7

4.101 20.0
3.866 22.1
2.363 28.2
1.509 35.3
1.480 38.0
.000 -1.0
NASH 3
9.475 0.0
8.536 2.0
7.963 4.0
7.310 6.0
6.712 8.0
6.183 10.0
6.023 12.1
5.582 14.1
5.071 16.4
4.169 19.9
3.770 21.8
3.372 24.6
2.487 28.0
2.137 30.5
1.384 36.5
1.537 38.0
.000 -1.0
NASH 4
8.908 0.0
8.500 1.0
8.340 2.0
8.200 3.0
7.695 4.0
7.276 5.0
6.785 6.3
6.317 8.3
6.235 10.1
5.812 11.4
5.070 13.8
4.417 16.8
3.890 20.1
3.427 22.1
2.357 26.4
1.857 29.5
1.947 32.0
.000 -1.0
NASH 5
9.987 0.0
9.332 2.0
9.000 4.0
8.251 6.0
7.989 8.0
7.143 10.0
6.253 12.6
6.073 14.2
5.168 17.6
4.192 22.5
3.575 25.5
2.430 30.2
2.145 32.8
1.605 35.5
1.645 36.0
.000 -1.0
NASH 6
9.884 0.0
9.553 2.0
8.765 4.0
8.049 6.0
7.773 8.0

7.093 10.0
6.411 12.0
5.897 14.0
5.672 15.7
5.345 18.1
4.294 22.4
3.486 26.5
2.358 30.0
1.801 34.6
1.850 36.0
.000 -1.0
NASH 1
7.436 0.0
6.935 2.9
6.081 6.0
5.383 9.3
4.793 13.3
4.093 18.9
3.642 23.3
3.151 26.8
2.763 30.0
2.369 32.3
1.993 33.9
1.288 36.5
1.356 38.0
.000 -1.0
NASH 2
8.160 0.0
7.100 3.0
5.779 6.5
5.039 12.8
4.467 16.9
3.605 23.3
2.996 28.3
2.475 33.2
2.238 35.0
1.474 37.6
1.480 38.0
.000 -1.0
NASH 3
9.952 0.0
9.165 1.5
7.967 3.5
7.182 5.5
6.549 7.8
5.916 9.6
4.960 14.7
4.375 18.0
3.612 24.3
2.750 31.2
2.419 33.6
2.123 35.6
1.537 38.0
.000 -1.0
NASH 4
8.908 0.0
8.500 1.8
8.136 2.8
7.795 3.9
6.852 5.7
5.480 10.3
4.653 13.3
3.955 18.0
2.800 24.1
2.510 27.6
2.150 31.0

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1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.502  4.4
8.301  6.1
7.026  8.3
6.449 10.2
6.123 10.9
5.048 15.1
3.689 22.9
3.052 27.2
2.478 31.3
1.973 34.7
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.533  5.1
8.237  6.4
6.918  9.0
6.349 10.5
5.251 14.3
3.731 22.7
3.261 26.2
2.816 30.2
2.111 34.9
1.850 36.0
 .000 -1.0
NASH 1
7.550  0.0
7.385  2.0
6.877  3.9
6.818  5.8
6.451  6.6
6.226  8.1
5.371 11.3
4.793 14.8
4.124 18.3
3.507 23.4
2.980 26.4
2.322 29.7
1.951 32.9
1.272 37.2
1.356 38.0
 .000 -1.0
NASH 2
8.176  0.0
7.136  3.0
5.985  8.4
4.998 13.7
4.698 17.1
4.216 19.6
3.934 22.7
3.505 25.0
3.230 26.1
2.954 27.7
2.213 31.5
1.945 34.2
1.441 37.3
1.480 38.0
 .000 -1.0
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NASH 3
9.950  0.0
9.384  0.7
7.928  3.4
6.841  7.2
5.767 11.2
5.030 15.2
4.475 18.4
3.861 23.0
3.410 25.8
2.529 29.5
2.231 32.3
1.887 35.9
1.483 37.7
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.486  1.7
7.396  4.3
6.553  6.4
5.737  9.9
4.843 14.5
4.293 17.7
3.468 21.8
2.613 26.1
2.187 29.9
1.896 31.6
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.508  4.3
8.348  5.9
7.394  7.4
6.908  8.4
6.792  9.7
6.379 10.9
6.130 12.3
5.150 16.0
4.858 17.5
4.049 20.9
3.235 24.7
2.676 28.0
2.326 29.7
2.262 31.4
1.954 34.2
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.507  5.1
8.281  7.0
7.459  9.0
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6.796 10.9
6.215 12.8
6.075 13.9
5.527 15.6
5.391 16.5
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5.123 18.1
4.059 22.4
3.252 25.7
2.784 29.2
2.430 31.0
2.183 33.7
1.850 36.0
 .000 -1.0
NASH 1
7.533  0.0
7.296  2.0
6.870  3.5
6.754  4.9
6.355  7.9
4.778 14.0
4.245 16.8
3.408 22.7
3.166 24.3
2.741 26.8
2.025 30.8
1.583 34.3
1.307 35.9
1.356 38.0
 .000 -1.0
NASH 2
8.172  0.0
7.093  3.0
6.408  6.1
5.904  9.6
5.144 13.5
4.659 16.4
3.753 21.7
3.123 25.8
2.375 29.7
1.835 33.8
1.439 36.8
1.480 38.0
 .000 -1.0
NASH 3
9.958  0.0
9.121  1.6
7.947  3.6
6.865  6.5
6.569  7.7
6.184 10.1
5.316 14.0
4.486 18.1
3.853 22.0
3.348 25.1
2.938 27.7
2.385 30.1
1.817 35.9
1.517 37.3
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.666  1.2
8.533  2.5
7.464  4.9
7.063  5.8
6.637  7.8
6.344  9.3
5.303 12.7
```

```
4.731 15.3
3.911 20.0
3.174 23.9
2.439 27.5
2.124 29.8
1.938 31.4
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.523  4.7
8.462  5.8
7.067  8.5
6.910  9.7
6.637 10.7
6.455 12.7
5.627 14.9
4.583 18.2
3.977 21.3
3.218 25.6
2.972 27.8
2.477 29.5
2.056 33.7
1.645 36.0
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NASH 6
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9.553  2.0
8.765  4.0
8.448  5.7
8.264  7.3
7.431  9.1
6.951 10.4
6.753 11.6
6.354 13.0
6.194 14.2
5.581 16.2
4.817 18.3
4.285 20.8
3.513 24.7
3.159 27.3
2.449 30.6
2.134 33.5
1.850 36.0
 .000 -1.0
NASH 1
7.940  0.0
7.681  1.4
7.049  3.2
6.673  4.5
6.137  7.6
5.238 12.6
4.738 15.2
3.794 20.1
3.299 23.5
2.979 26.0
2.418 28.1
1.970 31.3
1.502 34.5
1.280 36.6
1.356 38.0
 .000 -1.0
NASH 2
8.306  0.0
7.998  0.9
7.402  2.6
6.713  5.9
6.137  9.2
5.019 14.7
4.306 19.9
3.806 22.3
3.038 26.5
2.170 31.0
1.635 35.5
1.421 37.0
1.480 38.0
 .000 -1.0
NASH 3
9.042  0.0
8.228  1.4
7.919  2.8
6.820  6.7
6.174  9.3
5.809 10.9
5.275 13.5
4.630 16.9
3.768 21.1
3.032 26.5
1.974 31.7
1.792 34.7
1.504 36.6
1.537 38.0
 .000 -1.0
NASH 4
8.908  0.0
8.500  1.0
8.340  2.0
8.666  1.2
8.533  2.5
7.023  5.6
6.210  8.8
5.189 12.8
4.697 15.8
4.032 18.8
3.337 21.5
2.912 25.3
2.189 27.7
1.868 31.0
1.947 32.0
 .000 -1.0
NASH 5
9.987  0.0
9.332  2.0
9.000  4.0
8.538  4.9
8.378  6.0
7.081  8.2
6.660  9.7
6.274 11.3
5.768 13.4
4.810 16.8
4.518 18.7
3.959 20.9
3.409 24.1
2.860 27.0
2.173 30.1
1.884 34.0
1.645 36.0
 .000 -1.0
NASH 6
9.884  0.0
9.553  2.0
8.765  4.0
8.448  5.4
8.524  6.3
8.248  7.3
8.289  8.0
8.026  8.9
7.302 10.6
6.259 14.2
5.343 17.1
4.844 19.3
4.087 23.2
3.122 27.7
2.208 32.3
2.089 34.4
1.850 36.0
 .000 -1.0
END  0
```

APPENDIX 6.1 EXAMPLE OF DATA USED IN SIZE/SHAPE ANALYSIS

This appendix uses data produced from sediment samples from the six standard sampling points (Fig: 3.6) down all four 'permanent' Gileston cross-sections.

Data blocks were computed as follows: A sediment sample was selected and one of the three principal particle axes was chosen to represent size. For the size range 0.0 to 99.9 (when the A-axis was used), or 0.0 to 49.9 (when the B or C-axes were used), those particles with the selected axis values which fell into consecutive 1cm class sizes (i.e. 0.0-0.9, 1.0-1.9, 2.0-2.9 etc.) were grouped and certain particle parameters calculated from them. Mean values of these parameters for each group were finally computed and used in the construction of size/shape graphs (see section 6.2.3 of the text)

Column 1: These give the median size values of the selected size parameter in each 1cm size class

Column 2: These give the mean Maximum Projection Sphericity values for the groups of particles falling into each size class

Column 3: These give the mean Oblate-Prolate Index values for the groups of particles falling into each size class

Column 4: These give the whole number of blades found in each group of particles

Column 5: These give the whole number of discs found in each group of particles

Column 6: These give the whole number of rods found in each group of particles

Column 7: These give the whole number of spheres found in each group of particles

Column 8: These give the whole number of particles falling into each size class

Column 9: These give the mean size of the larger of the two unselected principal particle axes for each group of particles

Column 10: These give the mean size of the smaller of the two unselected principal particle axes for each group of particles

Size/shape analysis using A-axis for size on all Gileston point A sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.85	0.99	0.70	0.00	0.00	0.00	100.00	1.00	2.10	1.80
3.50	0.68	-2.41	0.53	0.00	46.15	15.38	38.46	13.00	2.76	1.75
4.50	0.82	-1.68	0.59	10.00	35.00	5.00	50.00	20.00	3.69	3.23
5.50	0.67	-3.86	0.61	5.45	56.36	12.73	25.45	55.00	4.40	2.69
6.50	0.68	-1.39	0.61	6.09	46.96	10.43	36.52	115.00	5.09	3.25
7.50	0.65	-1.61	0.60	8.24	59.41	12.94	19.41	170.00	5.75	3.46
8.50	0.66	-0.49	0.59	10.73	49.76	19.02	20.49	205.00	6.26	3.88
9.50	0.64	-1.34	0.58	11.74	52.58	13.62	22.07	213.00	7.14	4.28
10.50	0.67	0.03	0.58	14.87	41.03	13.33	30.77	195.00	7.69	4.97
11.50	0.67	0.23	0.57	14.35	40.19	20.57	24.88	209.00	8.31	5.33
12.50	0.68	0.74	0.56	18.27	34.13	17.31	30.29	208.00	9.00	5.98
13.50	0.71	1.16	0.55	9.00	30.50	22.50	38.00	200.00	9.83	6.91
14.50	0.70	0.74	0.55	9.56	32.35	18.38	39.71	136.00	10.57	7.33
15.50	0.69	0.88	0.54	8.53	31.78	22.48	37.21	129.00	11.22	7.67
16.50	0.69	0.25	0.54	9.91	31.53	18.02	40.54	111.00	12.24	8.25
17.50	0.71	0.67	0.52	8.65	25.00	25.96	40.38	104.00	12.47	8.92
18.50	0.70	1.82	0.53	11.76	35.29	20.00	32.94	85.00	12.94	9.05
19.50	0.70	2.19	0.55	8.00	28.00	30.67	33.33	75.00	13.57	9.63
20.50	0.69	1.32	0.53	10.20	30.61	26.53	32.65	49.00	14.58	9.97
21.50	0.70	1.69	0.54	13.79	32.76	15.52	37.93	58.00	15.23	10.72
22.50	0.70	2.61	0.54	3.45	27.59	48.28	20.69	29.00	15.16	10.79
23.50	0.68	3.29	0.54	8.57	25.71	60.00	5.71	35.00	15.00	10.49
24.50	0.65	2.13	0.53	20.69	27.59	31.03	20.69	29.00	16.06	10.40
25.50	0.67	-0.75	0.53	0.00	55.56	22.22	22.22	18.00	19.17	12.04
26.50	0.68	2.17	0.55	0.00	35.29	35.29	29.41	17.00	17.94	12.32
27.50	0.69	1.64	0.49	5.56	38.89	16.67	38.89	18.00	19.03	13.07
28.50	0.69	1.58	0.51	5.56	33.33	33.33	27.78	18.00	19.77	13.56
29.50	0.65	2.09	0.56	13.64	40.91	31.82	13.64	22.00	19.60	12.83
30.50	0.69	2.98	0.51	0.00	27.78	44.44	27.78	18.00	20.18	14.25
31.50	0.67	2.82	0.51	8.70	30.43	30.43	30.43	23.00	20.52	14.02
32.50	0.67	1.28	0.52	21.74	17.39	30.43	30.43	23.00	22.40	14.87
33.50	0.70	3.48	0.50	10.53	21.05	26.32	42.11	19.00	21.99	16.11
34.50	0.64	2.51	0.54	23.53	23.53	41.18	11.76	17.00	21.91	13.94
35.50	0.67	1.71	0.48	12.50	25.00	12.50	50.00	16.00	24.49	16.34
36.50	0.64	3.30	0.50	16.67	33.33	16.67	33.33	6.00	23.08	15.05
37.50	0.70	4.09	0.53	0.00	18.18	63.64	18.18	11.00	23.39	17.08
38.50	0.69	5.39	0.54	8.33	16.67	66.67	8.33	12.00	22.39	16.74
39.50	0.65	6.18	0.51	0.00	14.29	57.14	28.57	7.00	22.03	15.50
40.50	0.68	4.01	0.49	0.00	37.50	50.00	12.50	8.00	25.04	17.75
41.50	0.68	5.49	0.52	0.00	33.33	66.67	0.00	6.00	23.83	17.50
42.50	0.64	7.65	0.53	33.33	0.00	50.00	16.67	6.00	21.58	15.33
43.50	0.64	2.99	0.50	33.33	33.33	33.33	0.00	3.00	27.33	17.67
44.50	0.72	6.20	0.52	25.00	0.00	50.00	25.00	4.00	25.50	20.25
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.68	3.38	0.50	0.00	33.33	66.67	0.00	3.00	29.33	20.33
47.50	0.62	-4.30	0.50	0.00	100.00	0.00	0.00	1.00	39.00	21.00
48.50	0.66	10.47	0.60	0.00	0.00	100.00	0.00	1.00	21.00	17.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	0.56	7.14	0.60	100.00	0.00	0.00	0.00	1.00	25.00	15.00
51.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	0.67	8.13	0.50	0.00	0.00	100.00	0.00	2.00	26.00	20.00
53.50	0.72	6.30	0.50	0.00	0.00	100.00	0.00	4.00	30.50	24.50
54.50	0.66	12.50	0.60	0.00	0.00	100.00	0.00	1.00	21.00	18.00
55.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

65.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
66.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.50	0.31	53.12	0.10	100.00	0.00	0.00	0.00	1.00	15.00	6.10
85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using B-axis for size on all Gileston point A sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.71	8.58	0.44	0.00	0.00	100.00	0.00	5.00	5.64	2.26
3.50	0.61	6.50	0.54	33.33	33.33	25.00	8.33	12.00	7.45	2.48
4.50	0.66	6.65	0.56	18.69	14.02	48.60	18.69	107.00	8.85	3.37
5.50	0.67	1.64	0.55	12.85	29.05	37.99	20.11	179.00	8.53	3.78
6.50	0.68	1.62	0.61	10.98	32.32	29.88	26.83	328.00	9.75	4.43
7.50	0.70	1.12	0.58	9.82	31.74	25.44	33.00	397.00	10.72	5.24
8.50	0.69	1.50	0.56	16.44	23.99	27.22	32.35	371.00	12.27	5.85
9.50	0.68	-0.41	0.54	16.45	46.77	8.39	28.39	310.00	12.89	6.15
10.50	0.67	1.03	0.53	14.66	36.21	31.03	18.10	232.00	15.54	6.99
11.50	0.73	1.97	0.54	7.98	24.79	27.31	39.92	238.00	16.16	8.56
12.50	0.71	0.20	0.55	10.80	40.85	16.43	31.92	213.00	16.98	8.79
13.50	0.67	-2.50	0.56	11.40	62.28	0.00	26.32	114.00	17.03	8.25
14.50	0.61	-4.23	0.52	8.75	75.00	2.50	13.75	80.00	18.04	7.77
15.50	0.67	-3.78	0.59	0.00	98.44	0.00	1.56	64.00	18.52	9.22
16.50	0.69	-2.54	0.50	0.00	80.36	10.71	8.93	56.00	20.59	10.45
17.50	0.70	-2.94	0.53	0.00	42.86	0.00	57.14	35.00	21.23	11.15
18.50	0.61	5.67	0.60	100.00	0.00	0.00	0.00	4.00	33.00	11.50
19.50	0.80	4.40	0.43	0.00	0.00	66.67	33.33	3.00	28.67	16.80
20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	0.83	2.59	0.40	0.00	0.00	0.00	100.00	1.00	28.90	19.40
23.50	0.74	0.00	0.30	0.00	0.00	0.00	100.00	3.00	30.00	17.00
24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.69	-1.31	0.40	0.00	57.14	0.00	42.86	7.00	33.14	16.93
27.50	0.54	-2.19	0.20	0.00	100.00	0.00	0.00	1.00	37.50	12.80
28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using C-axis for size on all Gileston point A sediments

0.50	0.30	-7.18	0.20	100.00	0.00	0.00	0.00	1.00	6.20	4.00
1.50	0.40	-5.50	0.30	10.00	90.00	0.00	0.00	10.00	8.28	5.66
2.50	0.53	-1.53	0.51	32.43	58.56	5.41	3.60	111.00	8.24	5.47
3.50	0.59	-0.20	0.55	24.83	55.70	14.77	4.70	298.00	9.87	6.63
4.50	0.65	0.26	0.57	15.25	45.07	18.16	21.52	446.00	10.43	7.36
5.50	0.67	0.38	0.56	12.40	40.00	23.80	23.80	500.00	12.08	8.62
6.50	0.70	0.95	0.57	9.62	30.38	22.53	37.47	395.00	13.42	9.59
7.50	0.72	2.08	0.57	9.42	28.57	32.47	29.55	308.00	15.02	10.40
8.50	0.74	1.77	0.52	9.09	30.74	28.57	31.60	231.00	16.23	11.57
9.50	0.75	0.38	0.58	0.00	35.80	26.14	38.07	176.00	16.75	12.93
10.50	0.78	2.09	0.53	0.00	24.68	21.43	53.90	154.00	17.99	13.17
11.50	0.80	3.68	0.54	4.30	0.00	48.39	47.31	93.00	19.32	13.42
12.50	0.81	-1.57	0.43	0.00	7.14	21.43	71.43	14.00	19.24	16.16
13.50	0.85	3.17	0.73	0.00	0.00	0.00	100.00	4.00	19.18	14.85
14.50	0.82	8.25	0.60	0.00	0.00	100.00	0.00	2.00	24.50	14.30
15.50	0.81	-0.59	0.50	0.00	0.00	0.00	100.00	1.00	23.30	19.80
16.50	0.70	-0.94	0.40	0.00	80.00	20.00	0.00	5.00	31.60	24.64
17.50	0.77	2.73	0.37	0.00	0.00	0.00	100.00	9.00	30.33	22.17
18.50	0.85	6.84	0.40	0.00	0.00	100.00	0.00	1.00	28.70	19.10
19.50	0.83	2.59	0.40	0.00	0.00	0.00	100.00	1.00	28.90	22.50
20.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using A-axis for size on all Gileston point B sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.50	0.80	3.14	0.57	0.00	0.00	44.44	55.56	9.00	3.49	2.93
5.50	0.67	-3.92	0.66	0.00	72.00	0.00	28.00	25.00	4.75	2.84
6.50	0.63	-4.30	0.53	3.33	75.00	0.00	21.67	60.00	5.31	2.95
7.50	0.70	-2.25	0.61	4.86	46.53	7.64	40.97	144.00	6.21	4.07
8.50	0.70	-0.70	0.60	3.65	38.36	19.18	38.81	219.00	6.49	4.29
9.50	0.69	-1.20	0.62	1.92	51.44	12.98	33.65	208.00	7.37	4.78
10.50	0.72	1.09	0.61	5.60	30.17	22.41	41.81	232.00	7.74	5.50
11.50	0.72	2.16	0.58	9.97	18.90	36.08	35.05	291.00	8.08	5.90
12.50	0.66	1.78	0.54	17.78	36.00	17.78	28.44	225.00	8.50	5.61
13.50	0.65	-0.48	0.50	21.09	46.09	12.50	20.31	256.00	9.93	6.21
14.50	0.69	1.76	0.52	11.28	34.24	30.35	24.12	257.00	10.21	7.02
15.50	0.69	-0.25	0.51	14.65	39.39	20.20	25.76	198.00	11.68	7.65
16.50	0.69	1.21	0.54	16.88	40.91	24.03	18.18	154.00	11.96	8.19
17.50	0.71	1.38	0.59	3.92	38.24	36.27	21.57	102.00	12.58	8.83
18.50	0.67	2.18	0.55	12.90	41.94	37.10	8.06	62.00	12.31	8.14
19.50	0.69	2.73	0.53	11.84	11.84	40.79	35.53	76.00	13.02	9.18
20.50	0.64	4.69	0.58	42.86	21.43	35.71	0.00	56.00	12.11	8.08
21.50	0.68	4.15	0.47	18.33	43.33	38.33	0.00	60.00	13.34	9.40
22.50	0.66	3.52	0.45	22.03	40.68	30.51	6.78	59.00	14.15	9.65
23.50	0.61	7.99	0.41	61.11	0.00	33.33	5.56	18.00	11.57	7.89
24.50	0.62	2.61	0.54	30.43	47.83	21.74	0.00	23.00	15.72	9.60
25.50	0.88	7.35	0.40	0.00	0.00	0.00	100.00	3.00	17.00	17.00
26.50	0.42	28.79	0.20	100.00	0.00	0.00	0.00	1.00	6.30	3.50
27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	0.65	5.19	0.33	33.33	0.00	33.33	33.33	3.00	18.63	13.50
29.50	0.63	5.72	0.50	0.00	0.00	100.00	0.00	3.00	16.50	11.20
30.50	0.74	0.00	0.30	0.00	0.00	0.00	100.00	3.00	23.50	17.00
31.50	0.70	-2.92	0.40	0.00	100.00	0.00	0.00	4.00	26.00	16.50
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.61	5.67	0.60	100.00	0.00	0.00	0.00	4.00	18.00	11.50
34.50	0.74	6.96	0.40	0.00	0.00	100.00	0.00	1.00	19.20	16.20
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.69	0.83	0.40	0.00	0.00	0.00	100.00	3.00	26.00	17.50
37.50	0.54	-2.19	0.20	0.00	100.00	0.00	0.00	1.00	27.00	12.80
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

66.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.50	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using B-axis for size on all Gileston point B sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.77	9.15	0.50	0.00	0.00	100.00	0.00	1.00	3.50	1.70
2.50	0.66	7.05	0.49	14.29	14.29	42.86	28.57	14.00	5.40	1.99
3.50	0.65	5.18	0.53	11.11	27.78	47.22	13.89	36.00	6.91	2.56
4.50	0.67	3.81	0.59	16.92	22.39	38.81	21.89	201.00	7.47	3.13
5.50	0.65	2.52	0.58	22.06	31.25	31.25	15.44	272.00	8.80	3.66
6.50	0.66	0.68	0.59	17.15	39.84	22.43	20.58	379.00	9.49	4.18
7.50	0.65	-0.03	0.59	14.36	47.10	17.63	20.91	397.00	10.55	4.68
8.50	0.65	-0.06	0.55	10.64	49.86	18.77	20.73	357.00	11.99	5.35
9.50	0.66	-1.25	0.56	6.05	54.80	13.17	25.98	281.00	12.74	5.90
10.50	0.65	-1.50	0.54	11.54	52.40	13.46	22.60	208.00	14.09	6.34
11.50	0.67	-1.51	0.55	9.20	48.28	12.64	29.89	174.00	15.56	7.39
12.50	0.66	-1.96	0.53	7.69	52.14	10.26	29.91	117.00	16.21	7.62
13.50	0.69	-0.82	0.53	4.88	45.12	9.76	40.24	82.00	17.60	8.75
14.50	0.69	-1.10	0.53	3.51	45.61	10.53	40.35	57.00	18.89	9.57
15.50	0.64	-2.36	0.51	7.69	56.41	12.82	23.08	39.00	20.66	9.21
16.50	0.65	-2.17	0.49	3.45	68.97	6.90	20.69	29.00	21.38	9.92
17.50	0.65	-1.54	0.48	0.00	57.14	19.05	23.81	21.00	23.37	10.73
18.50	0.69	-0.37	0.51	0.00	42.86	14.29	42.86	7.00	24.64	12.23
19.50	0.65	-3.27	0.50	0.00	52.94	11.76	35.29	17.00	24.72	11.65
20.50	0.70	-1.95	0.51	0.00	66.67	0.00	33.33	9.00	25.41	13.24
21.50	0.73	-4.09	0.52	0.00	84.62	0.00	15.38	13.00	23.91	12.54
22.50	0.74	-3.63	0.50	0.00	33.33	0.00	66.67	3.00	25.10	15.17
23.50	0.66	-4.51	0.53	0.00	100.00	0.00	0.00	3.00	27.60	13.60
24.50	0.60	-5.62	0.55	0.00	83.33	0.00	16.67	6.00	28.57	12.25
25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.68	-3.37	0.50	0.00	100.00	0.00	0.00	3.00	31.50	16.00
27.50	0.51	-4.10	0.20	0.00	100.00	0.00	0.00	1.00	37.00	11.50
28.50	0.51	-7.37	0.50	0.00	100.00	0.00	0.00	1.00	34.50	11.30
29.50	0.62	-5.04	0.40	0.00	100.00	0.00	0.00	1.00	34.00	15.50
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.52	-3.71	0.50	0.00	100.00	0.00	0.00	1.00	43.00	14.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using C-axis for size on all Gileston point B sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.49	-5.50	0.50	8.82	76.47	5.88	8.82	34.00	6.19	4.67
2.50	0.54	-1.96	0.55	29.39	60.00	6.53	4.08	245.00	8.03	5.61
3.50	0.61	-0.34	0.56	19.23	55.19	16.54	9.04	520.00	9.21	6.38
4.50	0.63	-0.19	0.57	14.68	54.68	17.98	12.66	545.00	10.89	7.70
5.50	0.67	0.22	0.57	9.61	45.08	22.65	22.65	437.00	12.05	8.65
6.50	0.70	0.89	0.58	8.06	36.77	25.81	29.35	310.00	13.52	9.67
7.50	0.73	1.28	0.57	4.57	28.77	22.37	44.29	219.00	14.52	10.46
8.50	0.74	1.67	0.57	2.16	19.42	31.65	46.76	139.00	15.93	11.42
9.50	0.74	0.95	0.54	1.12	25.84	21.35	51.69	89.00	17.82	12.98
10.50	0.74	1.92	0.56	0.00	22.06	25.00	52.94	68.00	19.85	14.21
11.50	0.74	1.73	0.51	0.00	31.82	25.00	43.18	44.00	22.09	15.92
12.50	0.79	0.30	0.50	0.00	21.74	13.04	65.22	23.00	21.16	16.36
13.50	0.79	2.99	0.51	0.00	20.83	25.00	54.17	24.00	22.92	16.68
14.50	0.76	1.05	0.48	0.00	23.08	23.08	53.85	13.00	26.02	19.69
15.50	0.79	4.25	0.49	0.00	12.50	37.50	50.00	8.00	26.77	18.68
16.50	0.80	-12.84	0.52	0.00	50.00	0.00	50.00	6.00	26.53	21.90
17.50	0.89	2.49	0.60	0.00	0.00	0.00	100.00	2.00	22.45	19.05
18.50	0.81	0.93	0.60	0.00	0.00	0.00	100.00	3.00	28.43	22.67
19.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
20.50	1.95	0.72	0.50	0.00	0.00	0.00	100.00	1.00	2.60	21.50
21.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
23.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using A-axis for size on all Gileston point C1 sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	[illegible]	[illegible]
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	1.95	0.72	0.50	0.00	0.00	0.00	100.00	1.00	21.50	20.40
3.50	0.79	3.60	0.56	0.00	14.29	14.29	71.43	7.00	3.00	2.31
4.50	0.67	-1.89	0.55	5.26	42.11	10.53	42.11	19.00	3.57	2.23
5.50	0.64	-2.06	0.58	4.17	64.58	4.17	27.08	48.00	4.28	2.53
6.50	0.68	-1.74	0.64	4.32	55.40	4.32	35.97	139.00	5.20	3.33
7.50	0.65	-2.13	0.62	8.52	57.39	10.23	23.86	176.00	5.83	3.50
8.50	0.66	-0.72	0.59	12.28	48.07	18.95	20.70	285.00	6.30	3.95
9.50	0.65	-0.03	0.58	12.45	47.17	19.62	20.75	265.00	6.86	4.25
10.50	0.65	-0.30	0.56	12.29	48.12	17.75	21.84	293.00	7.65	4.73
11.50	0.65	0.01	0.55	12.75	48.37	21.24	17.65	306.00	8.23	5.07
12.50	0.66	0.27	0.56	11.69	47.19	18.61	22.51	231.00	8.97	5.69
13.50	0.67	0.64	0.55	13.07	35.68	19.60	31.66	199.00	9.75	6.39
14.50	0.65	1.38	0.55	16.97	40.00	21.82	21.21	165.00	9.95	6.35
15.50	0.65	0.48	0.53	15.52	43.10	24.14	17.24	116.00	10.70	6.83
16.50	0.66	1.59	0.55	13.68	32.63	32.63	21.05	95.00	11.29	7.41
17.50	0.67	1.76	0.51	17.39	29.35	23.91	29.35	92.00	12.05	8.06
18.50	0.67	2.81	0.51	14.55	20.00	36.36	29.09	55.00	12.19	8.32
19.50	0.62	0.02	0.54	30.00	40.00	5.00	25.00	40.00	13.72	8.11
20.50	0.64	1.24	0.55	19.51	41.46	24.39	14.63	41.00	13.82	8.55
21.50	0.70	3.25	0.52	16.13	19.35	32.26	32.26	31.00	14.34	10.34
22.50	0.64	1.29	0.49	6.45	51.61	29.03	12.90	31.00	15.32	9.38
23.50	0.69	1.02	0.54	10.00	40.00	20.00	30.00	10.00	16.94	11.59
24.50	0.66	3.36	0.48	14.29	28.57	42.86	14.29	14.00	15.61	10.60
25.50	0.57	-2.59	0.42	10.00	60.00	20.00	10.00	10.00	18.19	9.29
26.50	0.69	2.04	0.53	6.25	37.50	25.00	31.25	16.00	18.23	12.61
27.50	0.71	3.87	0.47	0.00	25.00	41.67	33.33	12.00	17.95	13.14
28.50	0.68	4.43	0.55	0.00	41.67	58.33	0.00	12.00	17.29	12.28
29.50	0.63	0.65	0.40	0.00	44.44	55.56	0.00	9.00	20.12	12.06
30.50	0.69	4.65	0.50	0.00	0.00	100.00	0.00	1.00	18.50	13.50
31.50	0.71	-0.19	0.52	0.00	60.00	20.00	20.00	5.00	24.00	16.24
32.50	0.50	9.76	0.35	50.00	0.00	50.00	0.00	2.00	14.15	7.50
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.57	-6.20	0.45	0.00	100.00	0.00	0.00	2.00	28.75	13.40
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.51	-4.10	0.20	0.00	100.00	0.00	0.00	1.00	27.50	11.50
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.52	-3.71	0.50	0.00	100.00	0.00	0.00	1.00	32.00	14.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
50.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
51.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
52.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
54.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
56.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
57.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
61.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
65.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

66.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
81.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using B-axis for size on all Gileston point C1 sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.71	3.12	0.56	12.50	18.75	31.25	37.50	16.00	4.10	1.94
3.50	0.71	3.79	0.56	17.65	21.57	45.10	15.69	51.00	6.06	2.79
4.50	0.66	3.03	0.60	20.00	22.86	36.43	20.71	140.00	7.29	3.08
5.50	0.65	1.05	0.59	17.20	40.80	24.00	18.00	250.00	8.24	3.51
6.50	0.64	0.27	0.57	20.21	42.55	18.44	18.79	282.00	9.56	4.06
7.50	0.67	0.52	0.57	14.24	40.13	23.62	22.01	309.00	10.74	4.90
8.50	0.67	-0.29	0.58	8.76	45.42	19.12	26.69	251.00	11.76	5.48
9.50	0.68	0.09	0.57	7.76	42.24	19.83	30.17	232.00	13.16	6.34
10.50	0.70	-0.15	0.56	5.26	37.32	14.83	42.58	209.00	14.01	7.12
11.50	0.69	-0.23	0.55	8.86	36.71	15.19	39.24	158.00	15.60	7.64
12.50	0.70	0.25	0.54	6.63	32.53	19.88	40.96	166.00	17.27	8.66
13.50	0.72	0.12	0.55	5.51	37.01	11.02	46.46	127.00	17.95	9.50
14.50	0.72	-0.38	0.54	3.92	33.33	21.57	41.18	102.00	19.67	10.40
15.50	0.68	1.74	0.52	12.33	30.14	20.55	36.99	73.00	23.31	10.41
16.50	0.67	-1.99	0.49	1.96	54.90	13.73	29.41	51.00	21.62	10.36
17.50	0.72	0.26	0.56	2.00	28.00	26.00	44.00	50.00	24.04	12.42
18.50	0.67	0.59	0.54	2.50	55.00	25.00	17.50	40.00	26.39	12.11
19.50	0.68	0.93	0.52	18.75	31.25	18.75	31.25	32.00	27.92	12.92
20.50	0.70	2.04	0.51	5.71	28.57	34.29	31.43	35.00	30.20	14.67
21.50	0.63	1.39	0.50	8.70	52.17	30.43	8.70	23.00	33.04	13.41
22.50	0.69	1.43	0.49	6.67	33.33	33.33	26.67	30.00	32.20	15.60
23.50	0.68	-0.71	0.57	0.00	53.85	0.00	46.15	13.00	30.66	14.99
24.50	0.70	0.43	0.54	8.00	24.00	8.00	60.00	25.00	33.05	16.66
25.50	0.68	2.07	0.60	12.50	25.00	25.00	37.50	8.00	37.00	17.19
26.50	0.69	2.49	0.52	0.00	30.00	30.00	40.00	10.00	39.70	18.47
27.50	0.68	-0.26	0.54	16.67	25.00	16.67	41.67	12.00	37.17	17.80
28.50	0.70	-1.31	0.51	0.00	64.29	0.00	35.71	14.00	35.93	18.50
29.50	0.62	-1.49	0.58	0.00	50.00	25.00	25.00	4.00	39.50	16.75
30.50	0.68	-4.38	0.53	0.00	50.00	25.00	25.00	4.00	36.88	18.63
31.50	0.53	-7.09	0.37	0.00	66.67	33.33	0.00	3.00	41.97	14.80
32.50	0.62	-4.51	0.50	0.00	100.00	0.00	0.00	3.00	38.57	17.17
33.50	0.63	-7.50	0.60	0.00	50.00	0.00	50.00	2.00	36.00	17.50
34.50	0.74	0.79	0.43	0.00	33.33	33.33	33.33	3.00	45.67	25.00
35.50	0.63	-1.77	0.50	0.00	100.00	0.00	0.00	1.00	46.00	20.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.62	-4.30	0.50	0.00	100.00	0.00	0.00	1.00	47.00	21.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using C-axis for size on all Gileston point C1 sediments

0.50	0.35	-17.62	0.40	0.00	100.00	0.00	0.00	1.00	3.70	3.20
1.50	0.50	-4.21	0.49	34.29	60.00	0.00	5.71	35.00	5.97	4.28
2.50	0.55	-2.27	0.55	21.79	64.10	8.97	5.13	234.00	7.87	5.58
3.50	0.61	-0.24	0.57	21.30	51.63	17.29	9.77	399.00	9.08	6.31
4.50	0.65	-0.28	0.57	16.62	50.99	15.77	16.62	355.00	10.57	7.54
5.50	0.68	0.04	0.55	9.29	42.63	22.76	25.32	312.00	12.10	8.65
6.50	0.69	0.95	0.57	5.91	37.80	25.20	31.10	254.00	13.99	9.83
7.50	0.72	1.09	0.57	7.39	28.79	22.57	41.25	257.00	15.06	10.85
8.50	0.73	1.74	0.56	4.30	25.27	29.03	41.40	186.00	16.56	11.77
9.50	0.74	0.91	0.56	3.25	23.38	16.88	56.49	154.00	17.59	13.03
10.50	0.75	1.36	0.54	3.23	19.35	22.58	54.84	124.00	19.35	14.18
11.50	0.73	2.00	0.56	3.26	28.26	25.00	43.48	92.00	22.84	15.94
12.50	0.75	2.45	0.59	2.47	16.05	30.86	50.62	81.00	23.44	16.32
13.50	0.77	1.74	0.55	5.17	15.52	22.41	56.90	58.00	23.92	17.53
14.50	0.73	3.00	0.51	3.45	20.69	41.38	34.48	29.00	28.56	19.20
15.50	0.69	2.00	0.52	10.00	35.00	20.00	35.00	20.00	33.07	22.42
16.50	0.75	3.82	0.50	3.03	12.12	39.39	45.45	33.00	32.22	20.70
17.50	0.89	-0.74	0.54	0.00	8.70	26.09	65.22	23.00	28.47	20.24
18.50	0.74	3.42	0.52	0.00	15.63	37.50	46.88	32.00	35.09	23.40
19.50	0.76	1.27	0.54	0.00	12.50	43.75	43.75	16.00	34.06	25.12
20.50	0.76	4.07	0.53	0.00	12.50	37.50	50.00	16.00	38.08	25.16
21.50	0.76	1.32	0.53	0.00	14.29	28.57	57.14	7.00	37.86	28.26
22.50	0.71	0.16	0.50	0.00	0.00	50.00	50.00	2.00	44.00	31.50
23.50	0.81	4.30	0.57	0.00	0.00	0.00	100.00	3.00	37.67	26.67
24.50	0.79	6.25	0.53	0.00	0.00	50.00	50.00	4.00	44.75	27.60
25.50	0.82	7.64	0.50	0.00	0.00	100.00	0.00	1.00	43.00	26.00
26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27.50	0.79	1.44	0.50	0.00	0.00	0.00	100.00	1.00	44.00	34.00
28.50	0.76	4.92	0.40	0.00	0.00	100.00	0.00	1.00	53.00	34.00
29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using A-axis for size on all Gileston point C2 sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3.50	0.78	1.59	0.61	0.00	28.57	28.57	42.86	7.00	3.59	2.76
4.50	0.68	-2.05	0.65	10.00	65.00	10.00	15.00	20.00	3.67	2.29
5.50	0.67	-2.26	0.64	2.17	58.70	8.70	30.43	46.00	4.45	2.74
6.50	0.68	-0.97	0.63	6.10	46.34	10.98	36.59	82.00	5.06	3.28
7.50	0.69	-1.16	0.62	6.56	45.08	13.11	35.25	122.00	5.83	3.79
8.50	0.68	-0.03	0.64	9.62	39.10	14.74	36.54	156.00	6.31	4.15
9.50	0.70	-0.20	0.63	8.14	38.37	13.37	40.12	172.00	7.24	4.94
10.50	0.71	0.07	0.60	8.03	33.58	14.60	43.80	137.00	7.97	5.51
11.50	0.71	0.38	0.59	4.14	37.24	20.00	38.62	145.00	8.62	5.96
12.50	0.70	0.46	0.59	10.14	33.78	16.89	39.19	148.00	9.25	6.34
13.50	0.72	1.75	0.58	6.62	24.26	24.26	44.85	136.00	9.71	7.06
14.50	0.72	1.52	0.58	11.61	23.21	17.86	47.32	112.00	10.46	7.54
15.50	0.73	1.79	0.59	8.05	21.84	28.74	41.38	87.00	11.19	8.26
16.50	0.72	1.02	0.57	4.11	38.36	20.55	36.99	73.00	12.12	8.60
17.50	0.70	1.28	0.53	10.39	29.87	23.38	36.36	77.00	12.72	8.92
18.50	0.71	1.65	0.56	7.46	29.85	20.90	41.79	67.00	13.15	9.33
19.50	0.71	1.65	0.53	8.70	26.09	28.26	36.96	46.00	13.89	9.88
20.50	0.68	0.67	0.57	12.82	43.59	15.38	28.21	39.00	14.71	9.71
21.50	0.70	2.10	0.53	5.26	31.58	31.58	31.58	38.00	14.94	10.53
22.50	0.73	3.71	0.49	3.57	14.29	46.43	35.71	28.00	14.98	11.37
23.50	0.69	3.23	0.54	21.74	8.70	34.78	34.78	23.00	15.62	11.21
24.50	0.68	1.84	0.53	7.14	57.14	28.57	7.14	14.00	16.90	11.49
25.50	0.64	0.37	0.56	4.55	40.91	36.36	18.18	22.00	17.85	11.03
26.50	0.68	1.92	0.53	16.67	25.00	33.33	25.00	12.00	18.04	12.35
27.50	0.67	3.82	0.49	26.67	20.00	46.67	6.67	15.00	17.30	11.99
28.50	0.77	2.88	0.55	0.00	18.18	45.45	36.36	11.00	20.24	16.22
29.50	0.70	1.18	0.58	12.50	31.25	25.00	31.25	16.00	21.07	14.56
30.50	0.69	-0.23	0.56	0.00	50.00	16.67	33.33	12.00	22.89	15.09
31.50	0.66	1.36	0.58	11.76	29.41	35.29	23.53	17.00	21.52	13.98
32.50	0.67	2.90	0.55	18.18	27.27	27.27	27.27	11.00	21.33	15.07
33.50	0.68	1.55	0.53	0.00	46.15	15.38	38.46	13.00	23.00	15.52
34.50	0.69	2.43	0.50	0.00	33.33	41.67	25.00	12.00	23.11	15.85
35.50	0.63	0.57	0.56	16.67	50.00	27.78	5.56	18.00	24.33	14.66
36.50	0.66	2.30	0.51	12.50	37.50	37.50	12.50	8.00	23.94	15.63
37.50	0.66	4.62	0.52	0.00	30.00	70.00	0.00	10.00	21.81	15.00
38.50	0.67	4.73	0.53	0.00	25.00	50.00	25.00	4.00	22.93	16.00
39.50	0.66	2.72	0.49	28.57	28.57	35.71	7.14	14.00	25.43	16.91
40.50	0.57	-0.27	0.51	0.00	44.44	44.44	11.11	9.00	26.99	14.61
41.50	0.63	5.05	0.59	14.29	14.29	57.14	14.29	7.00	23.00	15.43
42.50	0.67	4.59	0.59	30.00	10.00	40.00	20.00	10.00	25.70	18.20
43.50	0.64	9.21	0.55	0.00	0.00	100.00	0.00	2.00	20.00	15.00
44.50	0.56	2.03	0.47	66.67	33.33	-0.00	0.00	3.00	28.00	15.67
45.50	0.70	2.53	0.45	0.00	50.00	50.00	0.00	4.00	30.50	21.25
46.50	0.58	-5.17	0.60	0.00	100.00	0.00	0.00	2.00	38.00	18.50
47.50	0.59	-0.45	0.50	0.00	100.00	0.00	0.00	1.00	33.00	18.00
48.50	0.62	1.55	0.47	33.33	33.33	33.33	0.00	6.00	31.67	19.00
49.50	0.63	-1.31	0.60	0.00	50.00	50.00	0.00	4.00	36.00	20.50
50.50	0.63	5.00	0.45	33.33	16.67	50.00	0.00	6.00	28.67	18.67
51.50	0.42	-7.06	0.70	0.00	100.00	0.00	0.00	1.00	38.00	12.00
52.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
53.50	0.73	6.81	0.40	0.00	0.00	100.00	0.00	1.00	30.00	25.00
54.50	0.56	-9.20	0.40	0.00	100.00	0.00	0.00	1.00	50.00	22.00
55.50	0.84	6.55	0.40	0.00	0.00	100.00	0.00	1.00	36.00	34.00
56.50	0.67	0.78	0.45	50.00	0.00	0.00	50.00	2.00	40.50	27.00
57.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
58.50	0.57	6.44	0.50	100.00	0.00	0.00	0.00	1.00	30.00	18.00
59.50	0.69	9.09	0.60	0.00	0.00	100.00	0.00	2.00	28.50	23.50
60.50	0.66	7.29	0.50	50.00	0.00	0.00	50.00	2.00	33.00	25.00
61.50	0.51	1.78	0.40	100.00	0.00	0.00	0.00	2.00	37.00	17.50
62.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
63.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

65.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
66.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
70.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.50	0.51	11.73	0.60	100.00	0.00	0.00	0.00	1.00	30.50	17.60
76.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.50	0.56	3.83	0.60	100.00	0.00	0.00	0.00	1.00	45.00	25.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.66	6.25	0.60	0.00	0.00	100.00	0.00	1.00	44.00	32.00
81.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using B-axis for size on all Gileston point C2 sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.76	5.81	0.60	0.00	0.00	100.00	0.00	1.00	3.10	1.60
2.50	0.67	6.62	0.50	20.00	10.00	50.00	20.00	10.00	5.01	1.92
3.50	0.67	4.33	0.68	11.63	30.23	46.51	11.63	43.00	6.33	2.63
4.50	0.68	2.32	0.61	17.39	26.09	30.43	26.09	92.00	6.85	3.12
5.50	0.66	1.10	0.62	15.34	35.23	25.00	24.43	176.00	8.20	3.69
6.50	0.69	1.03	0.61	8.33	37.50	21.88	32.29	192.00	9.37	4.46
7.50	0.70	0.13	0.61	5.61	40.31	19.90	34.18	196.00	10.23	5.11
8.50	0.71	0.58	0.60	10.62	30.53	18.58	40.27	226.00	11.68	5.91
9.50	0.72	0.64	0.59	7.14	31.63	14.29	46.94	196.00	12.92	6.73
10.50	0.72	0.42	0.60	4.17	33.33	20.14	42.36	144.00	14.22	7.41
11.50	0.74	0.98	0.54	2.40	23.20	19.20	55.20	125.00	15.50	8.50
12.50	0.72	0.86	0.58	11.61	33.93	16.96	37.50	112.00	17.26	8.86
13.50	0.70	-0.09	0.55	1.18	43.53	16.47	38.82	85.00	18.10	9.17
14.50	0.71	0.39	0.57	6.78	32.20	13.56	47.46	59.00	19.80	10.03
15.50	0.73	0.72	0.55	3.03	28.79	19.70	48.48	66.00	21.18	11.25
16.50	0.70	-0.18	0.59	4.26	36.17	23.40	36.17	47.00	22.41	11.28
17.50	0.67	-0.33	0.54	8.33	45.83	29.17	16.67	24.00	24.23	11.38
18.50	0.68	-0.49	0.52	8.00	48.00	20.00	24.00	25.00	25.82	12.16
19.50	0.68	4.28	0.60	19.05	19.05	52.38	9.52	21.00	32.52	13.87
20.50	0.68	2.26	0.53	12.90	22.58	35.48	29.03	31.00	31.36	14.25
21.50	0.72	0.93	0.52	6.25	31.25	25.00	37.50	16.00	29.56	15.16
22.50	0.72	2.10	0.52	5.56	27.78	22.22	44.44	18.00	32.21	16.29
23.50	0.68	1.96	0.53	21.74	21.74	21.74	34.78	23.00	34.22	15.89
24.50	0.69	1.75	0.57	13.33	13.33	20.00	53.33	15.00	35.73	16.77
25.50	0.66	1.38	0.56	9.09	54.55	27.27	9.09	11.00	38.32	16.62
26.50	0.65	-2.28	0.51	0.00	73.33	20.00	6.67	15.00	34.09	15.63
27.50	0.63	-4.02	0.51	0.00	85.71	0.00	14.29	7.00	33.39	15.16
28.50	0.62	-1.08	0.50	20.00	60.00	10.00	10.00	10.00	39.10	16.05
29.50	0.65	-2.87	0.55	0.00	66.67	0.00	33.33	6.00	36.35	17.35
30.50	0.61	-0.19	0.52	27.27	45.45	18.18	9.09	11.00	45.27	17.42
31.50	0.63	-1.44	0.50	20.00	40.00	20.00	20.00	5.00	42.00	18.20
32.50	0.57	-4.33	0.50	0.00	75.00	25.00	0.00	4.00	43.00	16.25
33.50	0.62	-4.24	0.53	0.00	83.33	0.00	16.67	6.00	41.00	17.83
34.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
35.50	0.55	-5.63	0.55	0.00	100.00	0.00	0.00	2.00	43.00	16.00
36.50	0.84	6.55	0.40	0.00	0.00	100.00	0.00	1.00	55.00	34.00
37.50	0.53	0.00	0.48	75.00	25.00	0.00	0.00	4.00	56.50	17.75
38.50	0.41	-12.21	0.60	0.00	100.00	0.00	0.00	2.00	45.50	11.00
39.50	0.78	-3.11	0.55	0.00	50.00	0.00	50.00	2.00	43.50	28.50
40.50	0.55	-5.97	0.60	0.00	100.00	0.00	0.00	2.00	48.50	18.00
41.50	0.61	-5.57	0.55	0.00	100.00	0.00	0.00	2.00	48.00	21.00
42.50	0.79	3.77	0.50	0.00	0.00	0.00	100.00	1.00	60.00	35.00
43.50	0.67	-7.59	0.40	0.00	100.00	0.00	0.00	1.00	45.00	24.00
44.50	0.73	3.90	0.50	0.00	0.00	50.00	50.00	2.00	68.00	34.00
45.50	0.56	3.83	0.60	100.00	0.00	0.00	0.00	1.00	78.00	25.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.52	-11.85	0.60	0.00	100.00	0.00	0.00	1.00	49.00	18.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using C-axis for size on all Gileston point C2 sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.53	-0.52	0.56	39.29	42.86	10.71	7.14	28.00	5.84	3.86
2.50	0.58	-1.82	0.61	20.74	62.22	13.33	3.70	135.00	7.16	5.09
3.50	0.62	-0.03	0.59	16.36	53.74	16.82	13.08	214.00	8.98	6.22
4.50	0.67	-0.01	0.60	9.88	46.50	18.52	25.10	243.00	9.88	7.17
5.50	0.69	-0.07	0.60	7.97	39.84	18.33	33.86	251.00	11.37	8.39
6.50	0.72	1.19	0.61	5.13	26.50	20.94	47.44	234.00	12.89	9.27
7.50	0.74	1.18	0.59	4.74	23.68	21.58	50.00	190.00	14.16	10.35
8.50	0.75	1.27	0.59	3.87	25.81	19.35	50.97	155.00	15.57	11.50
9.50	0.75	1.18	0.57	1.57	25.20	22.05	51.18	127.00	17.61	13.10
10.50	0.73	1.58	0.55	2.88	22.12	27.88	47.12	104.00	21.00	14.87
11.50	0.77	1.89	0.56	8.11	12.16	18.92	60.81	74.00	20.96	15.11
12.50	0.73	2.06	0.59	9.62	25.00	21.15	44.23	52.00	25.23	17.84
13.50	0.74	2.40	0.54	6.67	22.22	33.33	37.78	45.00	26.68	18.52
14.50	0.72	1.66	0.55	7.14	28.57	25.00	39.29	28.00	29.34	20.60
15.50	0.71	2.36	0.55	5.00	30.00	37.50	27.50	40.00	32.01	21.53
16.50	0.71	0.67	0.54	9.09	22.73	27.27	40.91	22.00	33.03	23.70
17.50	0.73	3.16	0.54	6.25	25.00	31.25	37.50	16.00	35.65	23.58
18.50	0.67	2.43	0.54	20.00	28.00	40.00	12.00	25.00	42.70	28.06
19.50	0.73	5.50	0.49	8.33	8.33	58.33	25.00	12.00	40.75	24.33
20.50	0.80	3.47	0.55	0.00	6.25	18.75	75.00	16.00	34.28	24.51
21.50	0.74	2.79	0.50	0.00	14.29	42.86	42.86	7.00	40.43	28.00
22.50	0.73	0.38	0.56	0.00	28.57	28.57	42.86	7.00	42.71	32.10
23.50	0.77	5.47	0.55	0.00	0.00	100.00	0.00	2.00	43.50	27.50
24.50	0.67	-7.59	0.40	0.00	100.00	0.00	0.00	1.00	45.00	43.00
25.50	0.75	4.08	0.47	14.29	14.29	42.86	28.57	7.00	50.29	32.43
26.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
27.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
28.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.76	1.81	0.65	0.00	0.00	50.00	50.00	2.00	61.00	41.50
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.84	6.55	0.40	0.00	0.00	100.00	0.00	1.00	55.00	36.00
35.50	0.79	3.77	0.50	0.00	0.00	0.00	100.00	1.00	60.00	42.00
36.50	0.81	1.56	0.40	0.00	0.00	0.00	100.00	1.00	56.00	44.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using A-axis for size on all Gileston point D sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	1.18	5.23	0.20	0.00	0.00	0.00	100.00	1.00	4.20	3.00
2.50	0.54	-6.22	0.60	0.00	100.00	0.00	0.00	1.00	2.30	1.00
3.50	0.67	-4.16	0.73	0.00	50.00	0.00	50.00	4.00	2.98	1.75
4.50	0.70	-1.36	0.67	0.00	52.63	5.26	42.11	19.00	3.67	2.47
5.50	0.74	1.11	0.63	8.33	19.44	25.00	47.22	36.00	4.13	3.05
6.50	0.73	-1.05	0.62	1.75	38.60	10.53	49.12	57.00	5.27	3.68
7.50	0.72	-0.77	0.58	5.62	30.34	10.11	53.93	89.00	5.90	4.11
8.50	0.73	0.15	0.60	7.69	23.08	14.10	55.13	78.00	6.54	4.73
9.50	0.73	0.47	0.58	7.89	28.95	16.67	46.49	114.00	7.13	5.17
10.50	0.72	0.90	0.60	7.97	31.16	20.29	40.58	138.00	7.87	5.56
11.50	0.71	1.78	0.55	9.79	20.98	23.78	45.45	143.00	8.24	5.95
12.50	0.71	0.70	0.56	9.66	31.72	20.00	38.62	145.00	9.26	6.48
13.50	0.70	0.92	0.58	15.83	21.58	14.39	48.20	139.00	9.90	6.87
14.50	0.69	0.70	0.51	10.34	31.03	23.28	35.34	116.00	10.58	7.23
15.50	0.68	1.67	0.54	17.54	21.93	28.95	31.58	114.00	10.72	7.27
16.50	0.69	1.32	0.52	12.75	26.47	20.59	40.20	102.00	11.75	8.20
17.50	0.64	2.29	0.48	19.00	26.00	29.00	26.00	100.00	11.55	7.41
18.50	0.64	0.70	0.48	22.22	28.40	16.05	33.33	81.00	12.89	8.21
19.50	0.61	0.59	0.50	27.45	29.41	15.69	27.45	51.00	13.55	7.99
20.50	0.62	0.97	0.48	31.67	20.00	20.00	28.33	60.00	13.83	8.52
21.50	0.60	1.35	0.45	16.33	34.69	30.61	18.37	49.00	13.90	8.23
22.50	0.62	1.29	0.46	23.68	34.21	21.05	21.05	38.00	15.20	9.31
23.50	0.62	4.76	0.39	32.35	14.71	29.41	23.53	34.00	14.19	9.25
24.50	0.61	2.39	0.44	25.81	35.48	19.35	19.35	31.00	16.12	9.84
25.50	0.76	0.13	0.58	0.00	42.86	14.29	42.86	21.00	20.78	15.44
26.50	0.66	2.72	0.41	18.18	18.18	33.33	30.30	33.00	17.45	11.82
27.50	0.74	1.61	0.57	5.26	26.32	21.05	47.37	19.00	20.18	14.97
28.50	0.71	2.42	0.48	8.00	32.00	20.00	40.00	25.00	19.88	14.22
29.50	0.66	0.54	0.50	3.45	44.83	27.59	24.14	29.00	20.77	13.21
30.50	0.72	-1.11	0.54	0.00	47.62	9.52	42.86	21.00	24.44	16.65
31.50	0.68	0.15	0.56	0.00	47.62	19.05	33.33	21.00	23.01	14.99
32.50	0.74	1.34	0.54	2.86	25.71	25.71	45.71	35.00	24.01	17.75
33.50	0.67	-0.28	0.56	6.67	44.44	26.67	22.22	45.00	24.45	15.54
34.50	0.69	0.34	0.54	6.45	41.94	16.13	35.48	31.00	24.97	16.57
35.50	0.66	-0.33	0.55	9.09	40.91	27.27	22.73	44.00	25.72	16.09
36.50	0.70	-0.53	0.51	3.03	45.45	12.12	39.39	33.00	27.74	18.52
37.50	0.62	-3.10	0.52	4.55	68.18	13.64	13.64	22.00	29.05	16.00
38.50	0.62	-1.67	0.54	12.90	58.06	19.35	9.68	31.00	28.23	15.85
39.50	0.65	-1.35	0.53	7.69	57.69	19.23	15.38	26.00	29.50	17.63
40.50	0.61	-1.96	0.53	12.50	68.75	6.25	12.50	16.00	30.13	16.56
41.50	0.66	-1.04	0.57	7.89	57.89	13.16	21.05	38.00	31.13	19.37
42.50	0.61	-0.99	0.54	9.76	56.10	17.07	17.07	41.00	30.36	17.05
43.50	0.62	-0.39	0.54	8.82	55.88	17.65	17.65	34.00	30.59	18.00
44.50	0.67	0.55	0.55	6.25	50.00	28.13	15.63	32.00	31.81	20.53
45.50	0.67	1.75	0.53	9.30	30.23	32.56	27.91	43.00	30.72	20.33
46.50	0.65	0.61	0.53	4.35	47.83	34.78	13.04	23.00	31.96	20.30
47.50	0.61	1.64	0.56	18.75	37.50	37.50	6.25	16.00	30.13	17.75
48.50	0.65	-1.08	0.53	13.79	48.28	17.24	20.69	29.00	36.07	21.86
49.50	0.65	0.18	0.53	22.22	33.33	33.33	11.11	18.00	35.17	22.06
50.50	0.59	1.25	0.61	30.00	35.00	25.00	10.00	20.00	32.30	18.30
51.50	0.57	4.59	0.52	42.11	15.79	42.11	0.00	19.00	28.58	16.37
52.50	0.58	-4.62	0.54	6.25	68.75	12.50	12.50	16.00	41.25	20.56
53.50	0.66	0.36	0.54	15.79	57.89	15.79	10.53	19.00	38.37	24.28
54.50	0.60	0.05	0.53	22.22	44.44	33.33	0.00	9.00	37.00	20.44
55.50	0.67	1.70	0.53	14.29	33.33	23.81	28.57	21.00	37.86	25.38
56.50	0.63	0.28	0.51	10.00	40.00	30.00	20.00	10.00	39.10	23.20
57.50	0.63	-0.24	0.53	9.09	45.45	27.27	18.18	11.00	40.48	24.00
58.50	0.59	0.08	0.58	17.65	52.94	23.53	5.88	17.00	39.53	21.94
59.50	0.55	-7.16	0.53	0.00	100.00	0.00	0.00	9.00	49.78	22.00
60.50	0.63	3.37	0.53	5.26	57.89	15.79	21.05	19.00	42.21	25.55
61.50	0.70	-1.61	0.55	0.00	50.00	25.00	25.00	4.00	49.00	32.00
62.50	0.62	-0.81	0.49	0.00	42.86	42.86	14.29	14.00	44.44	25.71
63.50	0.58	-1.15	0.47	0.00	66.67	33.33	0.00	3.00	44.67	23.67
64.50	0.70	0.27	0.59	0.00	57.14	14.29	28.57	7.00	47.57	31.86

65.50	0.58	-1.47	0.53	23.08	30.77	15.38	30.77	13.00	46.38	24.08
66.50	0.55	-5.43	0.59	11.11	88.89	0.00	0.00	9.00	52.22	24.33
67.50	0.81	6.00	0.53	0.00	0.00	33.33	66.67	3.00	43.33	39.00
68.50	0.72	6.96	0.53	25.00	0.00	75.00	0.00	4.00	39.75	32.75
69.50	0.60	5.97	0.40	50.00	0.00	0.00	50.00	2.00	40.00	25.50
70.50	0.54	-6.97	0.50	0.00	57.14	28.57	14.29	7.00	53.29	24.43
71.50	0.66	1.51	0.47	16.67	0.00	16.67	66.67	6.00	49.00	32.00
72.50	0.61	0.05	0.50	0.00	66.67	33.33	0.00	3.00	50.00	29.00
73.50	0.55	-4.72	0.60	0.00	100.00	0.00	0.00	2.00	57.50	26.50
74.50	0.56	2.40	0.63	50.00	25.00	25.00	0.00	4.00	47.00	25.50
75.50	0.57	-1.17	0.62	0.00	80.00	20.00	0.00	5.00	52.40	26.80
76.50	0.49	-0.37	0.53	66.67	33.33	0.00	0.00	3.00	49.00	21.00
77.50	0.63	7.95	0.50	33.33	0.00	33.33	33.33	3.00	43.27	30.67
78.50	0.53	-1.47	0.60	0.00	100.00	0.00	0.00	3.00	54.00	25.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.52	1.10	0.55	50.00	25.00	25.00	0.00	4.00	50.25	23.75
81.50	0.49	-5.63	0.60	0.00	100.00	0.00	0.00	4.00	62.00	24.00
82.50	0.71	4.35	0.58	0.00	20.00	30.00	0.00	5.00	51.80	39.40
83.50	0.38	-10.36	0.60	0.00	100.00	0.00	0.00	1.00	64.00	17.00
84.50	0.56	-8.89	0.60	0.00	100.00	0.00	0.00	4.00	77.00	34.00
85.50	0.59	-0.52	0.53	66.67	16.67	16.67	0.00	6.00	58.33	32.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.44	-16.92	0.50	0.00	100.00	0.00	0.00	1.00	88.00	26.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.61	0.65	0.50	0.00	50.00	0.00	50.00	2.00	63.00	36.50
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.62	4.22	0.55	100.00	0.00	0.00	0.00	2.00	58.50	37.50

Size/shape analysis using B-axis for size on all Gileston point D sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.65	2.46	0.67	0.00	50.00	33.33	16.67	6.00	4.45	1.82
3.50	0.65	7.49	0.55	11.90	21.43	50.00	16.67	42.00	7.96	2.50
4.50	0.69	4.49	0.52	15.85	19.51	36.59	28.05	82.00	7.99	3.36
5.50	0.69	3.62	0.52	15.32	21.77	33.06	29.84	124.00	8.99	3.92
6.50	0.71	3.55	0.56	13.75	20.00	32.50	33.75	160.00	10.27	4.81
7.50	0.70	2.26	0.53	16.67	16.16	26.77	40.40	198.00	11.34	5.32
8.50	0.68	2.21	0.55	20.00	25.00	19.00	36.00	200.00	12.93	5.81
9.50	0.70	1.73	0.55	13.51	23.78	21.62	41.08	185.00	13.78	6.69
10.50	0.68	1.13	0.55	18.13	22.50	21.25	38.13	160.00	15.13	7.03
11.50	0.68	-0.29	0.56	12.50	28.47	13.89	45.14	144.00	15.84	7.65
12.50	0.71	0.18	0.53	13.39	25.00	12.50	49.11	112.00	17.02	8.68
13.50	0.67	-0.90	0.52	14.52	29.03	12.90	43.55	124.00	18.50	8.77
14.50	0.66	-2.60	0.50	9.09	46.75	5.19	38.96	77.00	18.56	8.81
15.50	0.68	-1.19	0.55	1.64	49.18	16.39	32.79	61.00	20.76	10.00
16.50	0.65	-3.41	0.52	2.86	51.43	8.57	37.14	35.00	20.86	9.94
17.50	0.68	-0.01	0.50	3.70	33.33	22.22	40.74	27.00	24.88	11.75
18.50	0.64	-0.45	0.50	11.76	41.18	26.47	20.59	34.00	27.46	11.47
19.50	0.66	-1.59	0.51	2.78	38.89	47.22	11.11	36.00	27.68	12.56
20.50	0.71	2.19	0.56	0.00	34.21	26.32	39.47	38.00	30.30	14.74
21.50	0.69	2.47	0.52	5.26	26.32	50.00	18.42	38.00	32.41	15.13
22.50	0.71	2.48	0.55	12.50	21.43	28.57	37.50	56.00	33.36	16.06
23.50	0.69	2.18	0.57	12.24	30.61	26.53	30.61	49.00	34.90	16.11
24.50	0.74	2.53	0.55	6.52	19.57	28.26	45.65	46.00	34.97	18.37
25.50	0.65	0.12	0.54	20.59	29.41	23.53	26.47	34.00	36.02	16.05
26.50	0.69	1.95	0.51	11.36	22.73	22.73	43.18	44.00	38.63	18.09
27.50	0.66	0.16	0.55	12.50	41.67	29.17	16.67	24.00	38.37	17.44
28.50	0.65	-1.13	0.57	8.89	60.00	15.56	15.56	45.00	38.34	17.24
29.50	0.66	0.26	0.57	24.39	41.46	9.76	24.39	41.00	41.46	18.48
30.50	0.66	-0.12	0.53	12.24	44.90	14.29	28.57	49.00	42.02	19.04
31.50	0.66	-1.06	0.53	7.14	52.38	16.67	23.81	42.00	41.83	19.57
32.50	0.63	-2.32	0.55	8.20	65.57	4.92	21.31	61.00	41.91	18.76
33.50	0.64	-0.93	0.53	13.33	50.00	13.33	23.33	30.00	45.80	20.03
34.50	0.56	-1.94	0.54	26.67	60.00	13.33	0.00	15.00	48.73	17.20
35.50	0.62	-2.68	0.54	7.32	70.73	12.20	9.76	41.00	46.02	19.66
36.50	0.63	-2.22	0.55	15.79	52.63	10.53	21.05	19.00	48.37	21.11
37.50	0.66	-2.43	0.54	0.00	58.33	20.83	20.83	24.00	48.04	22.83
38.50	0.62	-3.13	0.55	7.69	84.62	0.00	7.69	13.00	49.23	21.15
39.50	0.60	-2.88	0.52	0.00	62.96	22.22	14.81	27.00	52.33	21.26
40.50	0.66	-2.04	0.55	0.00	52.17	8.70	39.13	23.00	52.04	25.23
41.50	0.65	-0.87	0.56	5.88	52.94	17.65	23.53	17.00	56.47	25.76
42.50	0.63	-4.73	0.52	0.00	75.00	0.00	25.00	16.00	50.63	23.31
43.50	0.54	-5.08	0.54	17.65	64.71	5.88	11.76	17.00	56.24	19.76
44.50	0.67	-0.12	0.52	0.00	44.44	22.22	33.33	9.00	60.67	29.11
45.50	0.62	-2.02	0.51	5.56	55.56	16.67	22.22	18.00	60.33	25.67
46.50	0.60	-5.40	0.51	0.00	84.62	7.69	7.69	13.00	55.92	23.62
47.50	0.51	-7.45	0.45	0.00	100.00	0.00	0.00	4.00	56.75	19.00
48.50	0.60	-3.62	0.55	8.33	66.67	0.00	25.00	12.00	62.75	26.17
49.50	0.56	-5.85	0.55	0.00	100.00	0.00	0.00	4.00	59.50	22.75

Size/shape analysis using C-axis for size on all Gileston point D sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.43	-7.57	0.44	25.00	75.00	0.00	0.00	28.00	7.17	5.21
2.50	0.50	-0.70	0.42	29.52	49.52	15.24	5.71	105.00	10.69	6.71
3.50	0.56	1.80	0.43	35.96	57.44	15.27	11.33	203.00	12.43	7.54
4.50	0.62	0.36	0.48	25.55	37.96	16.79	19.71	274.00	12.14	8.15
5.50	0.69	1.14	0.53	13.54	29.26	23.58	33.62	229.00	12.34	8.46
6.50	0.73	1.86	0.59	5.66	20.75	26.42	47.17	212.00	12.99	9.10
7.50	0.73	1.45	0.59	7.39	21.02	26.14	45.45	176.00	14.66	10.46
8.50	0.74	1.26	0.59	4.19	23.04	24.61	48.17	191.00	16.42	11.95
9.50	0.76	1.80	0.62	2.27	22.73	22.73	52.27	132.00	17.10	12.78
10.50	0.72	0.45	0.59	10.34	18.10	17.24	54.31	116.00	22.10	15.98
11.50	0.70	-0.28	0.56	7.14	33.67	16.33	42.86	98.00	26.63	19.62
12.50	0.64	-1.43	0.57	5.13	55.13	6.41	33.33	78.00	30.22	22.75
13.50	0.65	-0.34	0.56	12.33	47.95	17.81	21.92	73.00	33.21	23.64
14.50	0.66	-0.72	0.54	6.94	45.83	22.22	25.00	72.00	32.19	23.87
15.50	0.62	-1.06	0.54	9.64	33.01	19.28	18.07	83.00	38.86	28.02
16.50	0.63	-1.63	0.57	7.94	49.21	12.70	30.16	63.00	39.48	29.50
17.50	0.66	-0.46	0.53	11.36	45.45	27.27	15.91	44.00	40.20	28.79
18.50	0.67	0.65	0.56	12.36	43.82	26.97	16.85	89.00	40.89	28.78
19.50	0.67	-0.49	0.52	9.38	48.44	17.19	25.00	64.00	42.09	31.05
20.50	0.67	0.82	0.52	12.86	44.29	21.43	21.43	70.00	45.52	32.11
21.50	0.70	0.18	0.55	7.02	40.35	19.30	33.33	57.00	43.31	32.19
22.50	0.72	0.92	0.57	3.70	25.93	29.63	40.74	54.00	45.96	32.92
23.50	0.73	2.11	0.56	11.11	22.22	27.78	38.89	18.00	44.78	31.94
24.50	0.75	1.03	0.56	0.00	35.48	6.45	58.06	31.00	46.55	35.68
25.50	0.70	0.76	0.55	0.00	34.29	22.86	42.86	35.00	52.34	37.94
26.50	0.75	1.50	0.49	0.00	29.41	41.18	29.41	17.00	49.71	37.21
27.50	0.70	0.59	0.52	0.00	37.50	45.83	16.67	24.00	55.54	40.75
28.50	0.72	1.55	0.51	0.00	45.45	27.27	27.27	11.00	56.27	39.91
29.50	0.75	3.07	0.53	0.00	8.33	41.67	50.00	12.00	56.33	38.83
30.50	0.70	-0.48	0.57	0.00	47.62	23.81	28.57	21.00	60.10	45.96
31.50	0.80	1.85	0.50	0.00	0.00	14.29	85.71	7.00	50.29	38.71
32.50	0.70	-1.29	0.56	33.33	16.67	16.67	33.33	12.00	65.33	49.75
33.50	0.70	-0.03	0.59	0.00	62.50	25.00	12.50	8.00	66.00	49.88
34.50	0.60	-7.12	0.56	0.00	80.00	0.00	20.00	5.00	79.60	71.20
35.50	0.78	3.96	0.52	5.26	0.00	26.32	68.42	19.00	63.26	43.32
36.50	0.76	1.09	0.54	0.00	20.00	0.00	80.00	5.00	63.40	48.80
37.50	0.78	0.16	0.55	0.00	0.00	0.00	100.00	2.00	61.00	48.00
38.50	0.84	3.46	0.52	0.00	0.00	20.00	60.00	5.00	59.60	42.80
39.50	0.85	6.45	0.53	0.00	0.00	33.33	66.67	3.00	61.33	41.00
40.50	0.74	4.93	0.50	33.33	0.00	66.67	0.00	3.00	79.67	50.67
41.50	0.73	4.10	0.58	0.00	0.00	80.00	20.00	5.00	81.00	52.60
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.89	6.10	0.60	0.00	0.00	50.00	50.00	2.00	60.50	44.00
44.50	0.83	3.07	0.50	0.00	0.00	0.00	100.00	2.00	71.00	53.50
45.50	0.81	5.07	0.50	0.00	0.00	50.00	50.00	2.00	76.00	51.50
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using A-axis for size on all Gileston point E sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2.50	0.85	30.61	0.20	0.00	100.00	0.00	0.00	1.00	11.30	4.30
3.50	0.69	-2.03	0.58	20.00	40.00	0.00	40.00	5.00	2.88	1.88
4.50	0.59	-4.41	0.52	10.53	52.63	10.53	26.32	19.00	3.48	1.87
5.50	0.59	-3.60	0.43	12.24	53.06	10.20	24.49	49.00	4.20	2.22
6.50	0.65	-2.05	0.51	22.22	37.78	0.00	40.00	45.00	5.14	3.21
7.50	0.60	-2.82	0.39	16.25	55.00	10.00	18.75	80.00	5.64	3.06
8.50	0.57	-1.68	0.35	23.02	51.59	15.08	10.32	126.00	6.07	3.16
9.50	0.59	-1.63	0.32	9.93	53.19	21.28	15.60	141.00	6.82	3.70
10.50	0.55	-0.49	0.28	32.31	39.23	17.69	10.77	130.00	7.12	3.59
11.50	0.59	0.26	0.29	25.00	40.12	18.02	16.86	172.00	7.82	4.43
12.50	0.55	-0.81	0.31	30.77	37.28	17.75	14.20	169.00	8.53	4.36
13.50	0.56	0.06	0.33	24.73	42.31	23.08	9.89	182.00	8.90	4.65
14.50	0.53	-0.79	0.29	33.33	39.51	16.05	11.11	162.00	9.58	4.66
15.50	0.53	-2.49	0.32	32.91	49.37	6.33	11.39	158.00	10.81	5.12
16.50	0.55	1.39	0.30	38.46	27.56	21.79	12.18	156.00	10.32	5.46
17.50	0.54	0.15	0.27	33.91	38.26	20.00	7.83	115.00	11.34	5.62
18.50	0.54	1.75	0.30	33.33	36.19	19.05	11.43	105.00	11.55	5.89
19.50	0.54	5.30	0.26	45.05	17.58	32.97	4.40	91.00	10.78	5.79
20.50	0.51	0.66	0.26	34.44	41.11	20.00	4.44	90.00	12.51	5.79
21.50	0.48	0.57	0.28	41.38	36.21	20.69	1.72	58.00	13.04	5.70
22.50	0.48	0.39	0.30	38.10	39.68	15.87	6.35	63.00	13.51	5.87
23.50	0.53	3.23	0.27	38.10	33.33	16.67	11.90	42.00	14.03	7.19
24.50	0.52	4.17	0.28	44.74	31.58	15.79	7.89	38.00	14.22	7.08
25.50	0.55	6.56	0.27	45.45	18.18	23.64	12.73	55.00	14.16	8.09
26.50	0.48	1.01	0.33	55.00	30.00	10.00	5.00	20.00	16.36	7.33
27.50	0.63	6.05	0.39	44.00	8.00	16.00	32.00	25.00	16.07	10.98
28.50	0.55	6.72	0.35	40.63	18.75	21.88	18.75	32.00	15.56	9.08
29.50	0.62	1.98	0.43	12.50	21.88	31.25	34.38	32.00	18.78	11.93
30.50	0.60	0.48	0.39	33.33	18.52	18.52	29.63	27.00	20.38	12.30
31.50	0.65	0.00	0.46	16.13	35.48	12.90	35.48	31.00	22.97	14.57
32.50	0.60	-4.99	0.47	8.33	58.33	12.50	20.83	24.00	25.27	13.79
33.50	0.62	3.08	0.36	21.74	30.43	34.78	13.04	23.00	21.19	13.11
34.50	0.63	0.29	0.50	11.54	61.54	15.38	11.54	26.00	24.27	14.70
35.50	0.60	-3.47	0.43	10.00	70.00	5.00	15.00	20.00	27.42	15.06
36.50	0.58	1.24	0.44	27.27	45.45	9.09	18.18	11.00	24.79	13.92
37.50	0.68	2.36	0.49	23.53	29.41	35.29	11.76	17.00	25.09	17.31
38.50	0.65	-3.15	0.46	9.52	66.67	14.29	9.52	21.00	30.91	18.32
39.50	0.71	4.50	0.43	4.88	7.32	48.78	39.02	41.00	24.96	18.94
40.50	0.66	-1.77	0.47	8.33	58.33	25.00	8.33	12.00	31.00	18.83
41.50	0.64	0.47	0.48	12.50	45.83	29.17	12.50	24.00	28.83	17.56
42.50	0.69	-1.79	0.48	0.00	33.33	33.33	33.33	12.00	32.67	20.58
43.50	0.75	1.93	0.50	0.00	25.00	25.00	50.00	4.00	31.75	24.25
44.50	0.70	1.65	0.56	14.29	21.43	14.29	50.00	14.00	31.50	22.36
45.50	0.61	0.14	0.46	12.50	25.00	50.00	12.50	8.00	30.50	17.38
46.50	0.64	6.77	0.42	27.27	0.00	72.73	0.00	11.00	24.27	17.09
47.50	0.68	4.99	0.48	11.11	11.11	66.67	11.11	9.00	28.11	20.56
48.50	0.54	-6.00	0.38	0.00	75.00	25.00	0.00	4.00	36.75	17.00
49.50	0.71	2.79	0.55	0.00	0.00	50.00	50.00	2.00	33.50	24.50
50.50	0.61	-0.93	0.44	0.00	40.00	60.00	0.00	5.00	35.20	19.80
51.50	0.65	0.84	0.46	20.00	40.00	20.00	20.00	5.00	35.60	22.40
52.50	0.58	-0.33	0.57	22.22	55.56	22.22	0.00	9.00	35.56	18.78
53.50	0.68	1.13	0.55	0.00	25.00	50.00	25.00	4.00	37.50	25.00
54.50	0.62	3.54	0.52	25.00	37.50	25.00	12.50	8.00	33.13	20.63
55.50	0.59	1.33	0.50	0.00	33.33	66.67	0.00	3.00	35.33	20.00
56.50	0.66	5.38	0.55	0.00	0.00	50.00	50.00	2.00	32.50	23.00
57.50	0.46	-0.58	0.40	50.00	50.00	0.00	0.00	2.00	36.50	14.50
58.50	0.69	11.58	0.62	16.67	0.00	83.33	0.00	6.00	24.00	21.33
59.50	0.39	-12.83	0.30	0.00	100.00	0.00	0.00	1.00	49.00	13.00
60.50	0.59	2.84	0.55	0.00	50.00	50.00	0.00	2.00	36.50	21.00
61.50	0.47	-4.89	0.50	0.00	100.00	0.00	0.00	1.00	45.00	17.00
62.50	0.73	6.80	0.50	0.00	0.00	100.00	0.00	1.00	35.00	29.00
63.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

65.50	0.63	6.23	0.52	33.33	0.00	66.67	0.00	6.00	36.33	24.83
66.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
67.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
68.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
69.50	0.55	0.00	0.40	0.00	100.00	0.00	0.00	1.00	46.00	23.00
70.50	0.73	4.29	0.50	0.00	0.00	100.00	0.00	1.00	45.00	35.00
71.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
72.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
73.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
74.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
76.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
77.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
78.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
79.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
80.50	0.63	5.33	0.50	0.00	0.00	100.00	0.00	1.00	45.00	30.00
81.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
82.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
83.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
84.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
85.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
86.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
87.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
88.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
89.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
91.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
92.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
93.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
94.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
95.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
96.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
97.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
98.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
99.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Size/shape analysis using B-axis for size on all Gileston point E sediments

0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.50	0.61	20.13	0.20	0.00	0.00	100.00	0.00	1.00	5.90	1.40
2.50	0.57	15.25	0.35	33.33	4.76	57.14	4.76	21.00	8.38	1.96
3.50	0.58	6.23	0.39	34.00	20.00	30.00	16.00	50.00	7.27	2.15
4.50	0.57	7.46	0.32	38.32	17.37	37.72	6.59	167.00	9.50	2.77
5.50	0.60	6.52	0.33	24.55	19.16	43.71	12.57	167.00	11.39	3.67
6.50	0.57	3.55	0.32	37.21	25.19	26.74	10.85	258.00	11.77	3.75
7.50	0.54	1.03	0.30	41.51	36.60	15.47	6.42	265.00	12.64	3.84
8.50	0.56	1.12	0.26	37.29	31.36	17.37	13.98	236.00	14.02	4.66
9.50	0.55	0.90	0.28	37.73	33.64	16.36	12.27	220.00	15.61	5.06
10.50	0.52	-1.51	0.30	33.97	44.50	11.00	10.53	209.00	16.13	4.96
11.50	0.53	-3.02	0.30	28.02	30.00	8.79	13.19	182.00	16.64	5.42
12.50	0.55	-1.41	0.32	27.89	49.66	10.88	11.56	147.00	18.66	6.36
13.50	0.57	-3.21	0.36	24.30	49.53	4.67	21.50	107.00	18.87	6.92
14.50	0.50	-6.37	0.31	14.94	65.52	6.90	12.64	87.00	19.64	6.28
15.50	0.51	-6.49	0.29	15.38	69.23	1.28	14.10	78.00	20.73	6.67
16.50	0.48	-6.59	0.34	16.67	52.08	22.92	8.33	48.00	24.84	7.30
17.50	0.48	-8.29	0.33	10.71	67.86	7.14	14.29	28.00	23.07	7.05
18.50	0.52	-7.54	0.32	7.69	74.36	7.69	10.26	39.00	23.87	8.25
19.50	0.66	-2.07	0.44	2.86	42.86	31.43	22.86	35.00	27.41	12.77
20.50	0.69	-1.97	0.39	16.67	38.89	19.44	25.00	36.00	28.89	11.76
21.50	0.68	1.38	0.44	12.50	25.00	43.75	18.75	32.00	31.69	14.86
22.50	0.69	2.37	0.54	7.89	15.79	36.84	39.47	38.00	33.87	15.91
23.50	0.60	-0.71	0.47	0.00	47.83	43.48	8.70	23.00	38.20	14.69
24.50	0.64	0.23	0.44	16.00	36.00	20.00	28.00	25.00	35.28	14.97
25.50	0.61	-0.88	0.45	12.12	33.33	39.39	15.15	33.00	37.29	15.08
26.50	0.67	2.23	0.45	13.64	27.27	31.82	27.27	22.00	40.57	17.93
27.50	0.63	-1.78	0.48	10.34	68.97	6.90	13.79	29.00	36.12	15.65
28.50	0.73	-0.20	0.46	0.00	23.81	23.81	52.38	21.00	37.43	20.02
29.50	0.61	-2.33	0.44	17.65	52.94	17.65	11.76	17.00	40.53	16.58
30.50	0.73	-0.08	0.39	0.00	25.00	5.00	70.00	20.00	38.40	21.63
31.50	0.62	-4.01	0.46	14.29	64.29	14.29	7.14	14.00	41.21	17.67
32.50	0.71	-1.57	0.57	0.00	45.45	0.00	54.55	11.00	39.73	21.64
33.50	0.69	-0.04	0.49	14.29	33.33	9.52	42.86	21.00	44.81	22.10
34.50	0.70	0.28	0.52	12.50	25.00	25.00	37.50	8.00	46.50	23.30
35.50	0.64	-3.84	0.51	0.00	72.73	18.18	9.09	11.00	43.64	20.00
36.50	0.60	-5.69	0.42	0.00	66.67	16.67	16.67	6.00	44.83	19.00
37.50	0.63	-6.00	0.61	0.00	93.33	0.00	6.67	15.00	43.07	19.93
38.50	0.63	-3.46	0.45	0.00	75.00	25.00	0.00	4.00	49.50	22.25
39.50	0.68	-2.78	0.56	0.00	57.14	0.00	42.86	7.00	48.29	24.14
40.50	0.63	-5.17	0.60	0.00	100.00	0.00	0.00	4.00	47.75	21.75
41.50	0.71	-0.79	0.55	0.00	50.00	0.00	50.00	2.00	52.50	27.50
42.50	0.55	-2.45	0.55	0.00	75.00	25.00	0.00	4.00	58.50	20.50
43.50	0.76	4.33	0.60	0.00	0.00	100.00	0.00	1.00	65.00	35.00
44.50	0.52	-8.97	0.50	0.00	100.00	0.00	0.00	2.00	50.50	17.50
45.50	0.61	1.58	0.50	0.00	33.33	66.67	0.00	3.00	70.33	27.33
46.50	0.55	0.00	0.40	0.00	100.00	0.00	0.00	1.00	69.00	23.00
47.50	0.58	-7.38	0.60	0.00	100.00	0.00	0.00	1.00	53.00	22.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.39	-12.83	0.30	0.00	100.00	0.00	0.00	1.00	59.00	13.00

Size/shape analysis using C-axis for size on all Gileston point E sediments

0.50	0.29	-17.31	0.34	25.00	75.00	0.00	0.00	8.00	5.61	4.30
1.50	0.35	-6.73	0.31	46.31	52.71	0.99	0.00	203.00	10.85	7.13
2.50	0.43	-2.32	0.29	42.61	48.28	6.40	2.71	406.00	12.73	8.02
3.50	0.48	0.46	0.29	39.39	45.69	13.52	1.40	429.00	14.61	8.88
4.50	0.56	1.27	0.29	34.43	37.70	21.55	6.32	427.00	14.91	9.27
5.50	0.61	1.91	0.33	29.80	31.02	24.49	14.69	245.00	15.76	9.91
6.50	0.62	2.51	0.31	23.83	37.38	28.04	10.75	214.00	18.15	11.17
7.50	0.67	1.57	0.29	14.19	35.14	24.32	26.35	148.00	17.38	11.61
8.50	0.71	3.26	0.35	8.82	29.41	32.35	29.41	102.00	18.28	12.30
9.50	0.72	3.67	0.32	5.33	16.00	42.67	36.00	75.00	20.48	12.96
10.50	0.68	0.41	0.39	10.64	36.17	17.02	36.17	47.00	23.14	16.45
11.50	0.69	0.26	0.42	9.09	30.30	18.18	42.42	33.00	25.64	18.77
12.50	0.71	0.35	0.44	7.84	33.33	15.69	43.14	51.00	26.31	19.25
13.50	0.66	-0.90	0.47	21.74	34.78	17.39	26.09	23.00	32.20	23.99
14.50	0.68	2.74	0.50	10.53	31.58	36.84	21.05	19.00	31.89	20.77
15.50	0.67	0.72	0.49	3.45	51.72	27.59	17.24	29.00	34.72	24.93
16.50	0.66	-0.24	0.53	7.50	52.50	10.00	30.00	40.00	36.64	26.51
17.50	0.72	2.41	0.53	2.86	22.86	34.29	40.00	35.00	35.60	24.47
18.50	0.72	1.16	0.54	4.55	34.09	36.36	25.00	44.00	35.93	25.84
19.50	0.75	2.73	0.52	0.00	12.12	33.33	54.55	33.00	35.72	25.16
20.50	0.69	-0.51	0.57	0.00	41.94	25.81	32.26	31.00	41.61	31.10
21.50	0.76	4.29	0.49	5.88	23.53	64.71	5.88	17.00	40.35	26.59
22.50	0.72	4.39	0.52	3.85	15.38	57.69	23.08	26.00	46.76	28.92
23.50	0.75	1.11	0.53	0.00	30.43	43.48	26.09	23.00	42.52	31.55
24.50	0.85	2.21	0.50	0.00	0.00	14.29	85.71	7.00	34.29	27.57
25.50	0.78	0.72	0.54	0.00	20.00	30.00	50.00	10.00	42.50	32.40
26.50	0.77	0.34	0.55	0.00	25.00	0.00	75.00	4.00	44.75	35.50
27.50	0.77	5.46	0.53	0.00	0.00	66.67	33.33	3.00	50.33	31.67
28.50	0.84	-0.07	0.33	0.00	0.00	0.00	100.00	3.00	39.67	33.33
29.50	0.83	3.88	0.44	0.00	0.00	15.79	84.21	19.00	45.42	33.37
30.50	0.79	2.87	0.57	0.00	0.00	33.33	66.67	3.00	54.33	38.33
31.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
32.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
33.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
34.50	0.78	7.09	0.40	0.00	0.00	100.00	0.00	1.00	65.00	38.00
35.50	0.74	4.31	0.55	0.00	0.00	100.00	0.00	2.00	67.50	44.00
36.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
44.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
46.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
47.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
48.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
49.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

APPENDIX 6.2 EXAMPLE OF DATA USED IN SIZE-SHAPE-FREQUENCY ANALYSIS

Using the data contained in columns 1, 9 and 10 of data blocks from Appendix 6.1, this appendix shows how the data used in the construction of size-shape-frequency curves was computed (see section 6.7.2 of the text).

The figure at the top of each data block indicates the samples size. Other information is arranged as follows:

Column 1: This letter represents the principal particle size parameter chosen to represent size in the analysis (i.e. A, B or C)

Column 2: This gives the whole number of particles falling into each size class (see column 8 of Appendix 6.1)

Column 3: This gives the mean value of the A-axis for each particle group

Column 4: This gives the mean value of the B-axis for each particle group

Column 5: This gives the mean value of the C-axis for each particle group

Column 6: This gives the B/A ratio using the values from columns 3 and 4

Column 7: This gives the C/B ratio using the values from columns 4 and 5

Column 8: This gives the first letter of the Zingg shape represented by the A, B and C-axis values contained in columns 3, 4 and 5. This has been calculated by plotting the ratio values contained in columns 6 and 7 on a Zingg Diagram (see Fig: 3.1)

Point A Sediments

2760

A	9	4.50	3.49	2.93	.78	.84	S
A	25	5.50	4.75	2.84	.86	.60	D
A	60	6.50	5.31	2.95	.82	.56	D
A	144	7.50	6.21	4.07	.83	.66	D
A	219	8.50	6.49	4.29	.76	.66	D
A	208	9.50	7.37	4.78	.78	.65	D
A	232	10.50	7.74	5.50	.74	.71	S
A	291	11.50	8.08	5.90	.70	.73	S
A	225	12.50	8.50	5.61	.68	.66	D
A	256	13.50	9.93	6.21	.74	.63	D
A	257	14.50	10.21	7.02	.70	.69	S
A	198	15.50	11.68	7.65	.75	.65	D
A	154	16.50	11.96	8.19	.72	.68	S
A	102	17.50	12.58	8.83	.72	.70	S
A	62	18.50	12.31	8.14	.67	.66	B
A	76	19.50	13.02	9.18	.67	.71	S
A	56	20.50	12.11	8.08	.59	.67	R
A	60	21.50	13.34	9.40	.62	.70	R
A	59	22.50	14.15	9.65	.63	.68	R
A	18	23.50	11.57	7.89	.49	.68	R
A	23	24.50	15.72	9.60	.64	.61	B
A	3	25.50	17.00	17.00	.67	1.00	S
A	1	26.50	6.30	3.50	.24	.56	B
A	3	28.50	18.63	13.50	.65	.72	R
A	3	29.50	16.50	11.20	.56	.68	R
A	3	30.50	23.50	17.00	.77	.72	S
A	4	31.50	26.00	16.50	.83	.63	D
A	4	33.50	18.00	11.50	.54	.64	B
A	1	34.50	19.20	16.20	.56	.84	R
A	3	36.50	26.00	17.50	.71	.67	S
A	1	37.50	27.00	12.80	.72	.47	D

Point A Sediments

2760

B	5	5.64	2.50	2.26	.44	.90	R
B	12	7.45	3.50	2.48	.47	.71	R
B	107	8.85	4.50	3.37	.51	.75	R
B	179	8.53	5.50	3.78	.64	.69	R
B	328	9.75	6.50	4.43	.67	.68	S
B	397	10.72	7.50	5.24	.70	.70	S
B	371	12.27	8.50	5.85	.69	.69	S
B	310	12.89	9.50	6.15	.74	.65	D
B	232	15.54	10.50	6.99	.68	.67	D
B	238	16.16	11.50	8.56	.71	.74	S
B	213	16.98	12.50	8.79	.74	.70	S
B	114	17.03	13.50	8.25	.79	.61	D
B	80	18.04	14.50	7.77	.80	.54	D
B	64	18.52	15.50	9.22	.84	.59	D
B	56	20.59	16.50	10.45	.80	.63	D
B	35	21.23	17.50	11.15	.82	.64	D
B	4	33.00	18.50	11.50	.56	.62	S
B	3	28.67	19.50	16.80	.68	.86	S
B	1	28.90	22.50	19.40	.78	.86	S
B	3	30.00	23.50	17.00	.78	.72	S
B	7	33.14	26.50	16.93	.80	.64	D
B	1	37.50	27.50	12.80	.73	.47	D

Point A Sediments

2760

C	1	6.20	4.00	0.50	.65	.13	B
C	10	8.28	5.66	1.50	.68	.27	D
C	111	8.24	5.47	2.50	.66	.46	B
C	298	9.87	6.63	3.50	.67	.53	D
C	446	10.43	7.36	4.50	.71	.61	D
C	500	12.08	8.62	5.50	.71	.64	D
C	395	13.42	9.59	6.50	.71	.68	S
C	308	15.02	10.40	7.50	.69	.72	S
C	231	16.23	11.57	8.50	.71	.73	S
C	176	16.75	12.93	9.50	.77	.73	S
C	154	17.99	13.17	10.50	.73	.80	S
C	93	19.32	13.42	11.50	.69	.86	S
C	14	19.24	16.16	12.50	.84	.77	S
C	4	19.18	14.85	13.50	.77	.91	S
C	1	23.30	19.80	15.50	.85	.78	S
C	5	31.60	24.64	16.50	.78	.67	S
C	9	30.33	22.17	17.50	.73	.79	S
C	1	28.70	19.10	18.50	.67	.97	R
C	1	28.90	22.50	19.50	.78	.87	S

Point B Sediments

2760

A	7	3.50	3.00	2.31	.86	.77	S
A	19	4.50	3.57	2.23	.79	.62	D
A	48	5.50	4.28	2.53	.78	.59	D
A	139	6.50	5.20	3.33	.80	.64	D
A	176	7.50	5.83	3.50	.78	.60	D
A	285	8.50	6.30	3.95	.74	.63	D
A	265	9.50	6.86	4.25	.72	.62	D
A	293	10.50	7.65	4.73	.73	.62	D
A	306	11.50	8.23	5.07	.72	.62	D
A	231	12.50	8.97	5.69	.72	.63	D
A	199	13.50	9.75	6.39	.72	.66	D
A	165	14.50	9.95	6.35	.69	.64	D
A	116	15.50	10.70	6.83	.69	.64	D
A	95	16.50	11.29	7.41	.68	.66	D
A	92	17.50	12.05	8.06	.69	.67	S
A	55	18.50	12.19	8.32	.66	.68	R
A	40	19.50	13.72	8.11	.70	.59	D
A	41	20.50	13.82	8.55	.67	.62	D
A	31	21.50	14.34	10.34	.67	.72	S
A	31	22.50	15.32	9.38	.68	.61	D
A	10	23.50	16.94	11.59	.72	.68	S
A	14	24.50	15.61	10.60	.64	.68	R
A	10	25.50	18.19	9.29	.71	.51	D
A	16	26.50	18.23	12.61	.69	.69	S
A	12	27.50	17.95	13.14	.65	.73	R
A	12	28.50	17.29	12.28	.61	.71	R
A	9	29.50	20.12	12.06	.68	.60	D
A	1	30.50	18.50	13.50	.61	.73	R
A	5	31.50	24.00	16.24	.76	.68	S
A	2	32.50	14.15	7.50	.44	.53	B
A	2	34.50	28.75	13.40	.83	.47	D
A	1	37.50	27.50	11.50	.73	.42	D
A	1	43.50	32.00	14.00	.74	.44	D

Point B Sediments

2760

B	14	5.40	2.50	1.99	.46	.80	R
B	36	6.91	3.50	2.56	.51	.73	R
B	201	7.47	4.50	3.13	.60	.70	R
B	272	8.80	5.50	3.66	.63	.67	B
B	379	9.49	6.50	4.18	.68	.64	D
B	397	10.55	7.50	4.68	.71	.62	D
B	357	11.99	8.50	5.35	.71	.63	D
B	281	12.74	9.50	5.90	.75	.62	D
B	208	14.09	10.50	6.34	.75	.60	D
B	174	15.56	11.50	7.39	.74	.64	D
B	117	16.21	12.50	7.62	.77	.61	D
B	82	17.60	13.50	8.75	.77	.65	D
B	57	18.89	14.50	9.57	.77	.66	D
B	39	20.66	15.50	9.21	.75	.59	D
B	29	21.38	16.50	9.92	.77	.60	D
B	21	23.37	17.50	10.73	.75	.61	D
B	7	24.64	18.50	12.23	.75	.66	D
B	17	24.72	19.50	11.65	.79	.60	D
B	9	25.41	20.50	13.24	.81	.65	D
B	13	23.91	21.50	12.54	.90	.58	D
B	3	25.10	22.50	15.17	.90	.67	S
B	3	27.60	23.50	13.60	.85	.58	D
B	6	28.57	24.50	12.25	.86	.50	D
B	3	31.50	26.50	16.00	.84	.60	D
B	1	37.00	27.50	11.50	.74	.42	D
B	1	34.50	28.50	11.30	.83	.40	D
B	1	34.00	29.50	15.50	.87	.53	D
B	1	43.00	32.50	14.00	.76	.43	D

Point B Sediments

2760

C	34	6.19	4.67	1.50	.75	.32	D
C	245	8.03	5.61	2.50	.70	.45	D
C	520	9.21	6.38	3.50	.69	.55	D
C	545	10.89	7.70	4.50	.71	.58	D
C	437	12.05	8.65	5.50	.72	.64	D
C	310	13.52	9.67	6.50	.72	.67	S
C	219	14.52	10.46	7.50	.72	.72	S
C	139	15.93	11.42	8.50	.72	.74	S
C	89	17.82	12.98	9.50	.73	.73	S
C	68	19.85	14.21	10.50	.72	.74	S
C	44	22.09	15.92	11.50	.72	.72	S
C	23	21.16	16.36	12.50	.77	.76	S
C	24	22.92	16.68	13.50	.73	.81	S
C	13	26.02	19.69	14.50	.76	.74	S
C	8	26.77	18.68	15.50	.70	.83	S
C	6	26.53	21.90	16.50	.83	.75	S
C	2	22.45	19.05	17.50	.85	.92	S
C	3	28.43	22.67	18.50	.80	.82	S

Point C1 Sediments

2730

A	1	2.50	2.10	1.80	.84	.86	S
A	13	3.50	2.76	1.75	.79	.63	D
A	20	4.50	3.69	3.23	.82	.88	S
A	55	5.50	4.40	2.69	.80	.61	D
A	115	6.50	5.09	3.25	.78	.64	D
A	170	7.50	5.75	3.46	.77	.60	D
A	205	8.50	6.26	3.88	.74	.62	D
A	213	9.50	7.14	4.28	.75	.60	D
A	195	10.50	7.69	4.97	.73	.65	D
A	209	11.50	8.31	5.33	.72	.64	D
A	208	12.50	9.00	5.98	.72	.66	D
A	200	13.50	9.83	6.91	.73	.70	S
A	136	14.50	10.57	7.33	.73	.69	S
A	129	15.50	11.22	7.67	.72	.68	S
A	111	16.50	12.24	8.25	.74	.67	S
A	104	17.50	12.47	8.92	.71	.72	S
A	85	18.50	12.94	9.05	.70	.70	S
A	75	19.50	13.57	9.63	.70	.71	S
A	49	20.50	14.58	9.97	.71	.68	S
A	58	21.50	15.23	10.72	.71	.70	S
A	29	22.50	15.16	10.79	.67	.71	S
A	35	23.50	15.00	10.49	.64	.70	R
A	29	24.50	16.06	10.40	.66	.65	B
A	18	25.50	19.17	12.04	.75	.63	D
A	17	26.50	17.94	12.32	.68	.69	S
A	18	27.50	19.03	13.07	.69	.69	S
A	18	28.50	19.77	13.56	.69	.69	S
A	22	29.50	19.60	12.83	.66	.65	B
A	18	30.50	20.18	14.25	.66	.71	R
A	23	31.50	20.52	14.02	.65	.68	R
A	23	32.50	22.40	14.87	.69	.66	D
A	19	33.50	21.99	16.11	.66	.73	R
A	17	34.50	21.91	13.94	.64	.64	B
A	16	35.50	24.49	16.34	.69	.67	S
A	6	36.50	23.08	15.05	.63	.65	B
A	11	37.50	23.39	17.08	.62	.73	R
A	12	38.50	22.39	16.74	.58	.75	R
A	7	39.50	22.03	15.50	.56	.70	R
A	8	40.50	25.04	17.75	.62	.71	R
A	6	41.50	23.83	17.50	.57	.73	R
A	6	42.50	21.58	15.33	.51	.71	R
A	3	43.50	27.33	17.67	.63	.65	B
A	4	44.50	25.50	20.25	.57	.79	R
A	3	46.50	29.33	20.33	.63	.69	R
A	1	47.50	39.00	21.00	.82	.54	D
A	1	48.50	21.00	17.00	.43	.31	R
A	1	50.50	25.00	15.00	.50	.60	B
A	2	52.50	26.00	20.00	.50	.77	R
A	4	53.50	30.50	24.50	.57	.80	R
A	1	54.50	21.00	16.00	.39	.86	R
A	1	84.50	15.00	6.10	.18	.41	B

Point C1 Sediments

2730

B	16	4.10	2.50	1.94	.61	.78	R
B	51	6.06	3.50	2.79	.58	.80	R
B	140	7.29	4.50	3.08	.62	.68	R
B	250	8.24	5.50	3.51	.67	.64	D
B	282	9.56	6.50	4.06	.68	.62	D
B	309	10.74	7.50	4.90	.70	.65	D
B	251	11.76	8.50	5.48	.72	.64	D
B	232	13.16	9.50	6.34	.72	.67	S
B	209	14.01	10.50	7.12	.75	.68	S
B	158	15.60	11.50	7.64	.74	.66	D
B	166	17.27	12.50	8.66	.72	.69	S
B	127	17.95	13.50	9.50	.75	.70	S
B	102	19.67	14.50	10.40	.74	.72	S
B	73	23.31	15.50	10.41	.66	.67	R
B	51	21.62	16.50	10.36	.76	.63	D
B	50	24.04	17.50	12.42	.73	.71	S
B	40	26.39	18.50	12.11	.70	.65	D
B	32	27.92	19.50	12.92	.70	.66	D
B	35	30.20	20.50	14.67	.68	.72	S
B	23	33.04	21.50	13.41	.65	.62	B
B	30	32.20	22.50	15.60	.70	.69	S
B	13	30.66	23.50	14.99	.77	.64	D
B	25	33.05	24.50	16.66	.74	.68	S
B	8	37.00	25.50	17.19	.69	.67	S
B	10	39.70	26.50	18.47	.67	.70	S
B	12	37.17	27.50	17.80	.74	.65	D
B	14	35.93	28.50	18.50	.79	.65	D
B	4	39.50	29.50	16.75	.75	.57	D
B	4	36.38	30.50	18.63	.83	.61	D
B	3	41.97	31.50	14.80	.75	.47	D
B	3	38.57	32.50	17.17	.84	.53	D
B	2	36.00	33.50	17.50	.93	.52	D
B	3	45.67	34.50	25.00	.76	.72	S
B	1	46.00	35.50	20.00	.77	.56	D
B	1	47.00	39.50	21.00	.84	.53	D

Point C1 Sediments

2730

C	1	3.70	3.20	0.50	.86	.16	D
C	35	5.97	4.28	1.50	.72	.35	D
C	234	7.87	5.58	2.50	.71	.45	D
C	399	9.08	6.31	3.50	.69	.55	D
C	355	10.57	7.54	4.50	.71	.60	D
C	312	12.10	8.65	5.50	.71	.64	D
C	254	13.99	9.83	6.50	.70	.66	D
C	257	15.06	10.85	7.50	.72	.69	S
C	186	16.56	11.77	8.50	.71	.72	S
C	154	17.59	13.03	9.50	.74	.73	S
C	124	19.35	14.18	10.50	.73	.74	S
C	92	22.84	15.94	11.50	.70	.72	S
C	81	23.44	16.32	12.50	.70	.77	S
C	58	23.92	17.53	13.50	.73	.77	S
C	29	28.56	19.20	14.50	.67	.76	S
C	20	33.07	22.42	15.50	.68	.69	S
C	33	32.22	20.70	16.50	.64	.80	R
C	23	28.47	20.24	17.50	.71	.86	S
C	32	35.09	23.40	18.50	.67	.79	S
C	16	34.06	25.12	19.50	.74	.78	S
C	16	38.08	25.16	20.50	.66	.81	R
C	7	37.86	28.26	21.50	.75	.76	S
C	2	44.00	31.50	22.50	.72	.71	S
C	3	37.67	26.67	23.50	.71	.88	S
C	4	44.75	27.60	24.50	.62	.89	R
C	1	43.00	26.00	25.50	.60	.98	R
C	1	44.00	34.00	27.50	.77	.81	S
C	1	53.00	34.00	28.50	.64	.84	R

Point C2 Sediments

2040

A	20	4.50	3.67	2.29	.82	.62	D
A	46	5.50	4.45	2.74	.81	.62	D
A	82	6.50	5.06	3.28	.78	.65	D
A	122	7.50	5.83	3.79	.78	.65	D
A	156	8.50	6.31	4.15	.74	.66	D
A	172	9.50	7.24	4.94	.76	.68	S
A	137	10.50	7.97	5.51	.76	.69	S
A	145	11.50	8.62	5.96	.75	.69	S
A	148	12.50	9.25	6.34	.74	.69	S
A	136	13.50	9.71	7.06	.72	.73	S
A	112	14.50	10.46	7.54	.72	.72	S
A	87	15.50	11.19	8.26	.72	.74	S
A	73	16.50	12.12	8.60	.73	.71	S
A	77	17.50	12.72	8.92	.73	.70	S
A	67	18.50	13.15	9.33	.71	.71	S
A	46	19.50	13.89	9.88	.71	.71	S
A	39	20.50	14.71	9.71	.72	.66	D
A	38	21.50	14.94	10.53	.69	.70	S
A	28	22.50	14.98	11.37	.67	.76	R
A	23	23.50	15.62	11.21	.66	.72	R
A	14	24.50	16.90	11.49	.69	.68	S
A	22	25.50	17.85	11.03	.70	.62	D
A	12	26.50	18.04	12.35	.68	.68	S
A	15	27.50	17.30	11.99	.63	.69	R
A	11	28.50	20.24	16.22	.71	.80	S
A	16	29.50	21.07	14.56	.71	.69	S
A	12	30.50	22.89	15.09	.75	.66	D
A	17	31.50	21.52	13.98	.68	.65	D
A	11	32.50	21.33	15.07	.66	.71	R
A	13	33.50	23.00	15.52	.69	.67	S
A	12	34.50	23.11	15.85	.67	.69	S
A	18	35.50	24.33	14.66	.69	.60	D
A	8	36.50	23.94	15.63	.66	.65	B
A	10	37.50	21.81	15.00	.58	.69	R
A	4	38.50	22.93	16.00	.60	.70	R
A	14	39.50	25.43	16.91	.64	.66	B
A	9	40.50	26.99	14.61	.67	.54	B
A	7	41.50	23.00	15.43	.55	.67	R
A	10	42.50	25.70	18.20	.60	.71	R
A	2	43.50	20.00	15.00	.46	.75	R
A	3	44.50	28.00	15.67	.63	.56	B
A	4	45.50	30.50	21.25	.67	.70	S
A	2	46.50	38.00	18.50	.82	.49	D
A	1	47.50	33.00	18.00	.69	.55	D
A	6	48.50	31.67	19.00	.65	.60	B
A	4	49.50	36.00	20.50	.73	.57	D
A	6	50.50	28.67	18.67	.57	.65	B
A	1	51.50	38.00	12.00	.74	.32	D
A	1	53.50	30.00	25.00	.56	.83	R
A	1	54.50	50.00	22.00	.92	.44	D
A	1	55.50	36.00	34.00	.65	.94	R
A	2	56.50	40.50	27.00	.72	.67	S
A	1	58.50	30.00	18.00	.51	.60	B
A	2	59.50	28.50	23.50	.48	.82	R
A	2	60.50	33.00	25.00	.55	.76	R
A	2	61.50	37.00	17.50	.60	.47	B
A	1	75.50	30.50	17.60	.40	.58	B
A	1	78.50	45.00	25.00	.57	.56	B
A	1	80.50	44.00	32.00	.55	.73	R

Point C2 Sediments

2040

B	10	5.01	2.50	1.92	.50	.77	R
B	43	6.33	3.50	2.63	.55	.75	R
B	92	6.85	4.50	3.12	.66	.69	R
B	176	8.20	5.50	3.60	.67	.65	D
B	192	9.37	6.50	4.46	.69	.69	S
B	196	10.23	7.50	5.11	.73	.68	S
B	226	11.68	8.50	5.91	.73	.70	S
B	196	12.92	9.50	6.73	.74	.71	S
B	144	14.22	10.50	7.41	.74	.71	S
B	125	15.50	11.50	8.50	.74	.74	S
B	112	17.26	12.50	8.86	.72	.71	S
B	85	18.10	13.50	9.17	.75	.68	S
B	59	19.80	14.50	10.03	.73	.69	S
B	66	21.18	15.50	11.25	.73	.73	S
B	47	22.41	16.50	11.28	.74	.68	S
B	24	24.23	17.50	11.38	.72	.65	D
B	25	25.82	18.50	12.16	.72	.66	D
B	21	32.52	19.50	13.87	.60	.71	R
B	31	31.36	20.50	14.25	.65	.70	R
B	16	29.56	21.50	15.16	.73	.71	S
B	18	32.21	22.50	16.29	.70	.72	S
B	23	34.22	23.50	15.89	.69	.68	S
B	15	35.73	24.50	16.77	.69	.68	S
B	11	38.32	25.50	16.62	.67	.65	B
B	15	34.09	26.50	15.63	.78	.59	D
B	7	33.39	27.50	15.16	.82	.55	D
B	10	39.10	28.50	16.05	.73	.56	D
B	6	36.35	29.50	17.35	.81	.59	D
B	11	45.27	30.50	17.42	.67	.57	D
B	5	42.00	31.50	18.20	.75	.58	D
B	4	43.00	32.50	16.25	.76	.50	D
B	6	41.00	33.50	17.83	.82	.53	D
B	2	43.00	35.50	16.00	.83	.45	D
B	1	55.00	36.50	34.00	.66	.93	R
B	4	56.50	37.50	17.75	.66	.47	B
B	2	45.50	38.50	11.00	.85	.29	D
B	2	43.50	39.50	28.50	.91	.72	S
B	2	48.50	40.50	18.00	.84	.44	D
B	2	48.00	41.50	21.00	.86	.51	D
B	1	60.00	42.50	35.00	.71	.82	S
B	1	45.00	43.50	24.00	.97	.55	D
B	2	68.00	44.50	34.00	.65	.76	R
B	1	78.00	45.50	25.00	.58	.55	B
B	1	49.00	47.50	18.00	.97	.38	D

Point C2 Sediments

2040

C	28	5.84	3.86	1.50	.66	.39	B
C	135	7.16	5.09	2.50	.71	.49	D
C	214	8.98	6.22	3.50	.69	.56	D
C	243	9.88	7.17	4.50	.73	.63	D
C	251	11.37	8.39	5.50	.74	.66	D
C	234	12.89	9.27	6.50	.72	.70	S
C	190	14.16	10.35	7.50	.73	.72	S
C	155	15.57	11.50	8.50	.74	.74	S
C	127	17.61	13.10	9.50	.74	.73	S
C	104	21.00	14.87	10.50	.71	.71	S
C	74	20.96	15.11	11.50	.72	.76	S
C	52	25.23	17.84	12.50	.71	.70	S
C	45	26.68	18.52	13.50	.69	.73	S
C	28	29.34	20.60	14.50	.70	.70	S
C	40	32.01	21.53	15.50	.67	.72	S
C	22	33.03	23.70	16.50	.72	.70	S
C	16	35.65	23.58	17.50	.66	.74	R
C	25	42.70	28.06	18.50	.66	.66	B
C	12	40.75	24.33	19.50	.60	.80	R
C	16	34.28	24.51	20.50	.71	.84	S
C	7	40.43	28.00	21.50	.69	.77	S
C	7	42.71	32.10	22.50	.75	.70	S
C	2	43.50	27.50	23.50	.63	.85	R
C	1	45.00	43.00	24.50	.96	.57	D
C	7	50.29	32.43	25.50	.64	.79	R
C	2	61.00	41.50	32.50	.68	.78	S
C	1	55.00	36.00	34.50	.65	.96	R
C	1	60.00	42.00	35.50	.70	.85	S
C	1	56.00	44.00	36.50	.79	.83	S

Point D Sediments

2760

A	1	2.50	2.30	1.00	.92	.43	D
A	4	3.50	2.98	1.75	.85	.59	D
A	19	4.50	3.67	2.47	.82	.67	S
A	36	5.50	4.13	3.05	.75	.74	S
A	57	6.50	5.27	3.68	.81	.70	S
A	89	7.50	5.90	4.11	.79	.70	S
A	78	8.50	6.54	4.73	.77	.72	S
A	114	9.50	7.13	5.17	.75	.73	S
A	138	10.50	7.87	5.56	.75	.71	S
A	143	11.50	8.24	5.95	.72	.72	S
A	145	12.50	9.26	6.48	.74	.70	S
A	139	13.50	9.90	6.87	.73	.69	S
A	116	14.50	10.58	7.23	.73	.68	S
A	114	15.50	10.72	7.27	.69	.68	S
A	102	16.50	11.75	8.20	.71	.70	S
A	100	17.50	11.55	7.41	.66	.64	B
A	81	18.50	12.89	8.21	.70	.64	D
A	51	19.50	13.55	7.99	.69	.59	D
A	60	20.50	13.83	8.52	.67	.62	D
A	49	21.50	13.90	8.23	.65	.59	B
A	38	22.50	15.20	9.31	.68	.61	D
A	34	23.50	14.19	9.25	.60	.65	B
A	31	24.50	16.12	9.84	.66	.61	B
A	21	25.50	20.78	15.44	.81	.74	S
A	33	26.50	17.45	11.82	.66	.68	R
A	19	27.50	20.18	14.97	.73	.74	S
A	25	28.50	19.88	14.22	.70	.72	S
A	29	29.50	20.77	13.21	.70	.64	D
A	21	30.50	24.44	16.65	.80	.68	S
A	21	31.50	23.01	14.99	.73	.65	D
A	35	32.50	24.01	17.75	.74	.74	S
A	45	33.50	24.45	15.54	.73	.64	D
A	31	34.50	24.97	16.57	.72	.66	D
A	44	35.50	25.72	16.09	.72	.63	D
A	33	36.50	27.74	18.52	.76	.67	S
A	22	37.50	29.05	16.00	.77	.55	D
A	31	38.50	28.23	15.85	.73	.56	D
A	26	39.50	29.50	17.63	.75	.60	D
A	16	40.50	30.13	16.56	.74	.55	D
A	38	41.50	31.13	19.37	.75	.62	D
A	41	42.50	30.36	17.05	.71	.56	D
A	34	43.50	30.59	18.00	.70	.59	D
A	32	44.50	31.81	20.53	.71	.65	D
A	43	45.50	30.72	20.33	.68	.66	D
A	23	46.50	31.96	20.30	.69	.64	D
A	16	47.50	30.13	17.75	.63	.59	B
A	29	48.50	36.07	21.86	.74	.61	D
A	18	49.50	35.17	22.06	.71	.63	D
A	20	50.50	32.30	13.30	.64	.57	B
A	19	51.50	28.58	16.37	.55	.57	B
A	16	52.50	41.25	20.56	.79	.50	D
A	19	53.50	38.37	24.28	.72	.63	D
A	9	54.50	37.00	20.44	.68	.55	D
A	21	55.50	37.86	25.38	.68	.67	S
A	10	56.50	39.10	23.20	.69	.59	D
A	11	57.50	40.48	24.00	.70	.59	D
A	17	58.50	39.53	21.94	.68	.56	D
A	9	59.50	49.78	22.00	.84	.44	D
A	19	60.50	42.21	25.55	.70	.61	D
A	4	61.50	49.00	32.00	.80	.65	D
A	14	62.50	44.44	25.71	.71	.58	D
A	3	63.50	44.67	23.67	.70	.53	D
A	7	64.50	47.57	31.86	.74	.67	S
A	13	65.50	46.38	24.08	.71	.52	D
A	9	66.50	52.22	24.33	.79	.47	D

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A	3	67.50	43.33	39.00	.64	.90	R
A	4	68.50	39.75	32.75	.58	.82	R
A	2	69.50	40.00	25.50	.58	.64	B
A	7	70.50	53.29	24.43	.76	.46	D
A	6	71.50	49.00	32.00	.69	.65	D
A	3	72.50	50.00	29.00	.69	.58	D
A	2	73.50	57.50	26.50	.78	.46	D
A	4	74.50	47.00	25.50	.63	.54	B
A	5	75.50	52.40	26.80	.69	.51	D
A	3	76.50	49.00	21.00	.64	.43	B
A	3	77.50	43.27	30.67	.56	.71	R
A	3	78.50	54.00	25.00	.69	.46	D
A	4	80.50	50.25	23.75	.62	.47	B
A	4	81.50	62.00	24.00	.76	.39	D
A	5	82.50	51.80	39.40	.63	.76	R
A	1	83.50	64.00	17.00	.77	.27	D
A	4	84.50	77.00	34.00	.91	.44	D
A	6	85.50	58.33	32.00	.68	.55	D
A	1	88.50	88.00	26.00	.99	.30	D
A	2	93.50	63.00	36.50	.67	.58	D
A	2	99.50	58.50	37.50	.59	.64	B

Point D Sediments

2760

B	6	4.45	2.50	1.32	.56	.73	R
B	42	7.96	3.50	2.50	.44	.71	R
B	82	7.99	4.50	3.36	.56	.75	R
B	124	8.99	5.50	3.92	.61	.71	R
B	160	10.27	6.50	4.81	.63	.74	R
B	198	11.34	7.50	5.32	.66	.71	R
B	200	12.93	8.50	5.81	.66	.68	R
B	185	13.78	9.50	6.69	.69	.70	S
B	160	15.13	10.50	7.03	.69	.67	S
B	144	15.84	11.50	7.65	.73	.67	D
B	112	17.02	12.50	8.68	.73	.69	S
B	124	18.50	13.50	8.77	.73	.65	D
B	77	18.56	14.50	8.81	.78	.61	D
B	61	20.76	15.50	10.00	.75	.65	D
B	35	20.86	16.50	9.94	.79	.60	D
B	27	24.88	17.50	11.75	.70	.67	S
B	34	27.46	18.50	11.47	.67	.62	D
B	36	27.68	19.50	12.56	.70	.64	D
B	38	30.30	20.50	14.74	.68	.72	S
B	38	32.41	21.50	15.13	.66	.70	R
B	56	33.36	22.50	16.06	.67	.71	S
B	49	34.90	23.50	16.11	.67	.69	S
B	46	34.97	24.50	18.37	.70	.75	S
B	34	36.02	25.50	16.05	.71	.63	D
B	44	38.63	26.50	18.09	.69	.68	S
B	24	38.37	27.50	17.44	.72	.63	D
B	45	38.34	28.50	17.24	.74	.60	D
B	41	41.46	29.50	18.48	.71	.63	D
B	49	42.02	30.50	19.04	.73	.62	D
B	42	41.83	31.50	19.57	.75	.62	D
B	61	41.91	32.50	18.76	.78	.58	D
B	30	45.80	33.50	20.03	.73	.60	D
B	15	48.73	34.50	17.20	.71	.50	D
B	41	46.02	35.50	19.66	.77	.55	D
B	19	48.37	36.50	21.11	.75	.58	D
B	24	48.04	37.50	22.83	.78	.61	D
B	13	49.23	38.50	21.15	.78	.55	D
B	27	52.33	39.50	21.26	.75	.54	D
B	23	52.04	40.50	25.23	.78	.62	D
B	17	56.47	41.50	25.76	.73	.62	D
B	16	50.63	42.50	23.31	.84	.55	D
B	17	56.24	43.50	19.76	.77	.45	D
B	9	60.67	44.50	29.11	.73	.65	D
B	18	60.33	45.50	25.67	.75	.56	D
B	13	55.92	46.50	23.62	.83	.51	D
B	4	56.75	47.50	19.00	.84	.40	D
B	12	62.75	48.50	26.17	.77	.54	D
B	4	59.50	49.50	22.75	.83	.46	D

Point D Sediments

2760

C	28	7.17	5.21	1.50	.73	.29	D
C	105	10.69	6.71	2.50	.63	.37	B
C	203	12.43	7.54	3.50	.61	.46	B
C	274	12.14	8.15	4.50	.67	.55	D
C	229	12.34	8.46	5.50	.69	.65	D
C	212	12.99	9.10	6.50	.70	.71	S
C	176	14.66	10.46	7.50	.71	.72	S
C	191	16.42	11.95	8.50	.73	.71	S
C	132	17.10	12.78	9.50	.75	.74	S
C	116	22.10	15.98	10.50	.72	.66	D
C	98	26.63	19.62	11.50	.74	.59	D
C	78	30.22	22.75	12.50	.75	.55	D
C	73	33.21	23.64	13.50	.71	.57	D
C	72	32.19	23.87	14.50	.74	.61	D
C	83	38.86	28.02	15.50	.72	.55	D
C	63	39.48	29.50	16.50	.75	.56	D
C	44	40.20	28.79	17.50	.72	.61	D
C	89	40.89	28.78	18.50	.70	.64	D
C	64	42.09	31.05	19.50	.74	.63	D
C	70	45.52	32.11	20.50	.71	.64	D
C	57	43.31	32.19	21.50	.74	.67	S
C	54	45.96	32.92	22.50	.72	.68	S
C	18	44.78	31.94	23.50	.71	.74	S
C	31	46.55	35.68	24.50	.77	.69	S
C	35	52.34	37.94	25.50	.72	.67	S
C	17	49.71	37.21	26.50	.75	.71	S
C	24	55.54	40.75	27.50	.73	.67	S
C	11	56.27	39.91	28.50	.71	.71	S
C	12	56.33	38.83	29.50	.69	.76	S
C	21	60.10	45.96	30.50	.76	.66	D
C	7	50.29	38.71	31.50	.77	.81	S
C	12	65.33	49.75	32.50	.76	.65	D
C	8	66.00	49.88	33.50	.76	.67	S
C	5	79.60	71.20	34.50	.89	.48	D
C	19	63.26	43.32	35.50	.68	.82	S
C	5	63.40	48.80	36.50	.77	.75	S
C	2	61.00	48.00	37.50	.79	.78	S
C	5	59.60	42.80	38.50	.72	.90	S
C	3	61.33	41.00	39.50	.67	.96	S
C	3	79.67	50.67	40.50	.64	.80	R
C	5	81.00	52.60	41.50	.65	.79	R
C	2	60.50	44.00	43.50	.73	.99	S
C	2	71.00	53.50	44.50	.75	.33	S
C	2	76.00	51.50	45.50	.68	.88	S

Point E Sediments

2760

A	5	3.50	2.88	1.88	.82	.65	D
A	19	4.50	3.48	1.87	.77	.54	D
A	49	5.50	4.20	2.22	.76	.53	D
A	45	6.50	5.14	3.21	.79	.62	D
A	80	7.50	5.64	3.06	.75	.54	D
A	126	8.50	6.07	3.16	.71	.52	D
A	141	9.50	6.82	3.70	.72	.54	D
A	130	10.50	7.12	3.59	.68	.50	D
A	172	11.50	7.82	4.43	.68	.57	D
A	169	12.50	8.53	4.36	.68	.51	D
A	182	13.50	8.90	4.65	.66	.52	B
A	162	14.50	9.58	4.66	.66	.49	B
A	158	15.50	10.81	5.12	.70	.47	D
A	156	16.50	10.32	5.46	.63	.53	B
A	115	17.50	11.34	5.62	.65	.50	B
A	105	18.50	11.55	5.39	.62	.51	B
A	91	19.50	10.78	5.79	.55	.54	B
A	90	20.50	12.51	5.79	.61	.46	B
A	58	21.50	13.04	5.70	.61	.44	B
A	63	22.50	13.51	5.87	.60	.43	B
A	42	23.50	14.03	7.19	.60	.51	B
A	38	24.50	14.22	7.08	.58	.50	B
A	55	25.50	14.16	8.09	.56	.57	B
A	20	26.50	16.36	7.33	.62	.45	B
A	25	27.50	16.07	10.98	.58	.68	R
A	32	28.50	15.56	9.08	.55	.58	B
A	32	29.50	18.78	11.93	.64	.64	B
A	27	30.50	20.38	12.30	.67	.60	D
A	31	31.50	22.97	14.57	.73	.63	D
A	24	32.50	25.27	13.79	.78	.55	D
A	23	33.50	21.19	13.11	.63	.62	B
A	26	34.50	24.27	14.70	.70	.61	D
A	20	35.50	27.42	15.06	.77	.55	D
A	11	36.50	24.79	13.92	.68	.56	D
A	17	37.50	25.09	17.31	.67	.69	S
A	21	38.50	30.91	18.32	.80	.59	D
A	41	39.50	24.96	18.94	.63	.76	R
A	12	40.50	31.00	18.83	.77	.61	D
A	24	41.50	28.83	17.56	.69	.61	D
A	12	42.50	32.67	20.58	.77	.63	D
A	4	43.50	31.75	24.25	.73	.76	S
A	14	44.50	31.50	22.36	.71	.71	S
A	8	45.50	30.50	17.38	.67	.57	D
A	11	46.50	24.27	17.09	.52	.70	R
A	9	47.50	28.11	20.56	.59	.73	R
A	4	48.50	36.75	17.00	.76	.46	D
A	2	49.50	33.50	24.50	.68	.73	S
A	5	50.50	35.20	19.80	.70	.56	D
A	5	51.50	35.60	22.40	.69	.63	D
A	9	52.50	35.56	18.78	.63	.53	D
A	4	53.50	37.50	25.00	.70	.67	S
A	8	54.50	33.13	20.63	.61	.62	B
A	3	55.50	35.33	20.00	.64	.57	B
A	2	56.50	32.50	23.00	.58	.71	R
A	2	57.50	36.50	14.50	.63	.40	B
A	6	58.50	24.00	21.33	.41	.89	R
A	1	59.50	49.00	13.00	.82	.27	D
A	2	60.50	36.50	21.00	.60	.58	B
A	1	61.50	45.00	17.00	.73	.38	D
A	1	62.50	35.00	29.00	.56	.83	R
A	6	65.50	36.33	24.83	.55	.68	R
A	1	69.50	46.00	23.00	.66	.50	B
A	1	70.50	45.00	35.00	.64	.78	R
A	1	80.50	45.00	30.00	.56	.67	R

Point E Sediments

2760

B	1	5.90	1.50	1.40	.25	.93	R
B	21	8.38	2.50	1.96	.30	.78	R
B	50	7.27	3.50	2.15	.48	.61	B
B	167	9.50	4.50	2.77	.47	.62	B
B	167	11.39	5.50	3.67	.48	.67	R
B	258	11.77	6.50	3.75	.55	.58	B
B	265	12.64	7.50	3.84	.59	.51	B
B	236	14.02	8.50	4.66	.61	.55	B
B	220	15.61	9.50	5.06	.61	.53	B
B	209	16.13	10.50	4.96	.65	.47	B
B	182	16.64	11.50	5.42	.69	.47	D
B	147	18.66	12.50	6.36	.67	.51	D
B	107	18.87	13.50	6.92	.72	.51	D
B	87	19.64	14.50	6.28	.74	.43	D
B	78	20.73	15.50	6.67	.75	.43	D
B	48	24.84	16.50	7.30	.66	.44	B
B	28	23.07	17.50	7.05	.76	.40	D
B	39	23.87	18.50	8.25	.78	.45	D
B	35	27.41	19.50	12.77	.71	.65	D
B	36	28.89	20.50	11.76	.71	.57	D
B	32	31.69	21.50	14.86	.68	.69	S
B	38	33.87	22.50	15.91	.66	.71	R
B	23	38.20	23.50	14.69	.62	.63	B
B	25	35.28	24.50	14.97	.69	.61	D
B	33	37.29	25.50	15.08	.68	.59	D
B	22	40.57	26.50	17.93	.65	.68	R
B	29	36.12	27.50	15.65	.76	.57	D
B	21	37.43	28.50	20.02	.76	.70	S
B	17	40.53	29.50	16.58	.73	.56	D
B	20	38.40	30.50	21.63	.79	.71	S
B	14	41.21	31.50	17.67	.76	.56	D
B	11	39.73	32.50	21.64	.82	.67	D
B	21	44.81	33.50	22.10	.75	.66	D
B	8	46.50	34.50	23.30	.74	.68	S
B	11	43.64	35.50	20.00	.81	.56	D
B	6	44.83	36.50	19.00	.81	.52	D
B	15	43.07	37.50	19.93	.87	.53	D
B	4	49.50	38.50	22.25	.78	.58	D
B	7	48.29	39.50	24.14	.82	.61	D
B	4	47.75	40.50	21.75	.85	.54	D
B	2	52.50	41.50	27.50	.79	.66	D
B	4	58.50	42.50	20.50	.73	.48	D
B	1	65.00	43.50	35.00	.67	.80	S
B	2	50.50	44.50	17.50	.88	.39	D
B	3	70.33	45.50	27.33	.65	.60	B
B	1	69.00	46.50	23.00	.67	.49	D
B	1	53.00	47.50	22.00	.90	.46	D
B	1	59.00	49.50	13.00	.84	.26	D

Point E Sediments

2760

C	8	5.61	4.30	0.50	.77	.12	D
C	203	10.85	7.13	1.50	.66	.21	B
C	406	12.73	8.02	2.50	.63	.31	B
C	429	14.61	8.88	3.50	.61	.39	B
C	427	14.91	9.27	4.50	.62	.49	B
C	245	15.76	9.91	5.50	.63	.55	B
C	214	18.15	11.17	6.50	.62	.58	B
C	148	17.38	11.61	7.50	.67	.65	D
C	102	18.28	12.30	8.50	.67	.69	S
C	75	20.48	12.98	9.50	.63	.73	R
C	47	23.14	16.45	10.50	.71	.64	D
C	33	25.64	18.77	11.50	.73	.61	D
C	51	26.31	19.25	12.50	.73	.65	D
C	23	32.20	23.99	13.50	.75	.56	D
C	19	31.89	20.77	14.50	.65	.70	R
C	29	34.72	24.93	15.50	.72	.62	D
C	40	36.64	26.51	16.50	.72	.62	D
C	35	35.60	24.47	17.50	.69	.72	S
C	44	35.93	25.84	18.50	.72	.72	S
C	33	35.72	25.16	19.50	.70	.78	S
C	31	41.61	31.10	20.50	.75	.66	D
C	17	40.35	26.59	21.50	.66	.81	R
C	26	46.96	28.92	22.50	.62	.78	R
C	23	42.52	31.55	23.50	.74	.74	S
C	7	34.29	27.57	24.50	.80	.89	S
C	10	42.50	32.40	25.50	.76	.79	S
C	4	44.75	35.50	26.50	.79	.75	S
C	3	50.33	31.67	27.50	.63	.87	R
C	3	39.67	33.33	28.50	.84	.86	S
C	19	45.42	33.37	29.50	.73	.88	S
C	3	54.33	38.33	30.50	.71	.80	S
C	1	65.00	38.00	34.50	.58	.91	R
C	2	67.50	44.00	35.50	.65	.81	R

APPENDIX 7.1 PRE AND POST-SWASH ZONE EXPERIMENT SEDIMENT SAMPLE AND PROFILE DATA

This data was used to construct Figures 7.13A-O. Folk-1 and Folk-2 values are given according to the equations shown on Fig: 3.2, whereas C-axis and C-axis Standard Deviation values are given in centimetres. Profile data is set out in a similar format to that used in Appendix 5.1 with the upper set of co-ordinates representing the pre-experiment survey.

SWASH VELOCITY FOR: 01/11/79

01/11/79		
1.625	00.0
1.569	01.4
1.433	02.9
2.005	04.5
3.135	11.9
4.222	18.6
4.574	20.5
5.796	25.5
6.764	27.4
8.229	30.2
8.340	32.0
8.997	34.6
0.000	-1.0
1.625	00.0
1.435	01.8
1.775	05.7
2.587	09.8
4.324	16.6
5.498	22.6
6.459	26.2
7.319	28.2
8.150	30.1
8.292	31.0
8.340	32.0
8.997	34.6
0.000	-1.0

SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.60	0.56	5.93	1.40
FOR POINT: A AFTER	0.50	0.59	5.88	1.20
FOR POINT: B BEFORE	0.53	0.41	5.93	1.50
FOR POINT: B AFTER	0.56	0.59	7.93	1.32
FOR POINT: C BEFORE	0.57	0.49	5.90	0.89
FOR POINT: C AFTER	0.66	0.47	6.67	1.62
FOR POINT: D BEFORE	0.60	0.65	6.78	1.62
FOR POINT: D AFTER	0.58	0.54	7.69	1.61
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

SWASH VELOCITY FOR: 13/11/79 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.55	0.59	7.93	5.04
FOR POINT: A AFTER	0.54	0.48	6.55	1.09
FOR POINT: B BEFORE	0.58	0.62	7.22	1.71
FOR POINT: B AFTER	0.55	0.55	6.68	1.23
FOR POINT: C BEFORE	0.47	0.54	6.54	1.55
FOR POINT: C AFTER	0.62	0.55	7.93	3.71
FOR POINT: D BEFORE	0.55	0.60	6.93	1.23
FOR POINT: D AFTER	0.48	0.56	7.53	3.17
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

13/11/79

1.101	00.0
1.471	02.4
2.121	10.1
3.373	14.4
4.028	17.1
4.554	18.6
5.283	20.8
5.149	22.3
5.437	23.2
6.500	25.0
6.568	29.8
6.864	32.1
7.671	34.7
8.247	36.8
0.000	-1.0
1.101	00.0
1.426	03.1
2.788	09.4
3.503	14.5
3.700	16.4
5.038	20.1
5.283	20.8
5.149	22.3
5.439	23.2
6.500	25.0
6.568	29.8
6.864	32.1
7.671	34.7
8.247	36.8
0.000	-1.0

SWASH VELOCITY FOR: 27/11/79 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.59	0.49	6.94	0.94
FOR POINT: A AFTER	0.56	0.44	7.76	1.44
FOR POINT: B BEFORE	0.61	0.52	7.61	1.47
FOR POINT: B AFTER	0.61	0.53	5.76	1.42
FOR POINT: C BEFORE	0.53	0.56	14.82	11.28
FOR POINT: C AFTER	0.60	0.50	12.47	8.65
FOR POINT: D BEFORE	0.59	0.51	7.44	1.78
FOR POINT: D AFTER	0.57	0.48	6.36	1.36
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

27/11/79

1.156	00.0
1.263	01.5
2.345	09.2
3.325	14.7
4.520	19.7
6.245	27.1
7.271	29.2
7.344	30.7
7.654	32.0
7.720	33.9
8.375	36.7
0.000	-1.0
1.123	00.0
1.099	00.8
1.412	04.2
2.225	11.0
2.793	14.6
3.384	17.6
3.894	20.0
4.464	22.1
6.389	26.3
6.705	28.8
7.089	29.0
7.344	30.7
7.654	32.0
7.720	33.9
8.375	36.7
0.000	-1.0

SWASH VELOCITY FOR: 13/12/79 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.57	0.55	5.45	0.90
FOR POINT: A AFTER	0.57	0.55	5.45	0.90
FOR POINT: B BEFORE	0.60	0.61	7.82	2.05
FOR POINT: B AFTER	0.56	0.48	6.10	1.69
FOR POINT: C BEFORE	0.66	0.53	8.89	2.73
FOR POINT: C AFTER	0.58	0.47	5.36	1.16
FOR POINT: D BEFORE	0.59	0.55	10.24	5.37
FOR POINT: D AFTER	0.54	0.60	8.67	4.92
FOR POINT: E BEFORE	0.61	0.52	6.23	1.80
FOR POINT: E AFTER	0.62	0.52	6.24	1.80

13/12/79

1.206	00.0
1.347	02.5
2.049	09.2
3.416	16.4
4.336	20.3
4.866	21.8
5.240	23.2
5.531	25.5
5.841	26.9
7.000	30.5
7.435	31.6
7.828	32.6
8.257	33.8
8.327	36.0
8.685	38.7
0.000	-1.0
1.295	00.0
1.712	03.9
2.081	07.1
3.181	14.3
3.834	17.7
4.866	21.8
5.255	23.2
5.531	25.5
5.841	26.9
7.000	30.5
7.435	31.6
7.828	32.6
8.257	33.8
8.327	36.0
8.685	38.7
0.000	-1.0

SWASH VELOCITY FOR: 25/01/80 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.55	0.57	7.15	1.51
FOR POINT: A AFTER	0.57	0.45	6.75	1.79
FOR POINT: B BEFORE	0.57	0.48	6.93	1.85
FOR POINT: B AFTER	0.56	0.52	7.30	1.52
FOR POINT: C BEFORE	0.52	0.48	8.01	2.93
FOR POINT: C AFTER	0.62	0.47	7.43	1.45
FOR POINT: D BEFORE	0.51	0.55	6.07	1.36
FOR POINT: D AFTER	0.52	0.57	5.91	1.08
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

25/01/80

1.024	0.0
1.280	2.9
1.642	4.7
2.044	10.2
3.126	15.4
3.657	18.0
4.483	21.3
5.079	23.4
6.039	27.0
6.542	29.7
6.824	34.3
7.209	35.8
8.156	38.9
.000	-1.0
1.024	0.0
1.265	2.1
1.546	3.3
2.010	8.1
2.630	11.8
3.532	16.6
4.352	19.5
5.136	23.0
5.820	26.4
6.039	27.0
6.542	29.7
6.824	34.3
7.209	35.8
.000	-1.0

SWASH VELOCITY FOR: 25/02/80 SEDIMENT SAMPLE DATA

25/02/80	
1.671	0.0
2.081	3.9
2.434	7.8
3.120	11.2
3.764	13.7
4.764	16.8
4.990	18.8
5.697	21.2
6.627	23.3
6.927	24.3
7.464	31.3
8.087	33.3
8.329	34.2
.000	-1.0
1.671	0.0
2.072	3.6
2.409	7.8
2.864	10.1
3.866	13.7
4.730	16.1
4.990	18.8
5.697	21.2
6.627	23.3
6.927	24.3
7.464	31.3
.000	-1.0

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.54	0.43	5.17	1.53
FOR POINT: A AFTER	0.54	0.43	5.17	1.53
FOR POINT: B BEFORE	0.58	0.59	8.39	1.81
FOR POINT: B AFTER	0.59	0.54	6.72	1.40
FOR POINT: C BEFORE	0.62	0.51	7.94	5.77
FOR POINT: C AFTER	0.55	0.63	10.26	7.52
FOR POINT: D BEFORE	0.57	0.54	14.13	10.41
FOR POINT: D AFTER	0.57	0.50	12.78	12.30
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

SWASH VELOCITY FOR: 11/03/80 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.60	0.45	5.68	0.87
FOR POINT: A AFTER	0.60	0.45	5.68	0.87
FOR POINT: B BEFORE	0.60	0.52	7.14	1.30
FOR POINT: B AFTER	0.60	0.52	7.14	1.30
FOR POINT: C BEFORE	0.59	0.51	8.47	5.05
FOR POINT: C AFTER	0.61	0.54	7.15	6.19
FOR POINT: D BEFORE	0.58	0.53	8.68	5.62
FOR POINT: D AFTER	0.50	0.58	6.93	5.12
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

11/03/80

1.290	0.0
1.211	1.5
1.557	3.9
2.038	6.6
2.238	8.2
2.789	11.3
3.332	14.9
4.154	18.6
4.536	20.0
5.326	21.9
5.408	25.1
5.750	27.5
5.758	29.9
5.978	31.8
6.535	35.0
6.994	37.9
.000	-1.0
1.290	0.0
1.193	1.9
1.549	3.8
1.871	6.3
2.340	9.6
2.814	12.7
3.263	15.7
3.789	18.2
4.098	18.9
4.553	20.5
5.245	22.0
.000	-1.0

SWASH VELOCITY FOR: 24/03/80 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.55	0.55	5.74	1.41
FOR POINT: A AFTER	0.58	0.58	6.34	1.00
FOR POINT: B BEFORE	0.59	0.53	7.03	1.57
FOR POINT: B AFTER	0.60	0.54	7.39	1.70
FOR POINT: C BEFORE	0.61	0.47	7.10	1.08
FOR POINT: C AFTER	0.55	0.51	6.64	2.76
FOR POINT: D BEFORE	0.58	0.45	7.22	4.43
FOR POINT: D AFTER	0.56	0.53	7.34	2.44
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

24/03/80

1.356	0.0
1.309	2.2
1.831	7.2
2.557	9.6
2.874	11.8
3.493	15.4
4.001	18.4
4.627	21.9
5.186	24.9
5.977	28.6
6.682	31.9
7.035	33.9
7.833	36.2
8.072	37.6
.000	-1.0
1.356	0.0
1.273	1.9
1.855	7.8
2.636	11.4
2.939	13.1
3.567	15.2
4.189	16.8
4.131	18.7
4.627	21.9
5.186	24.9
5.977	28.6
6.682	31.9
7.035	33.9
7.833	36.2
8.072	37.6
.000	-1.0

SWASH VELOCITY FOR: 12/02/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.55	0.41	4.23	0.94
FOR POINT: A AFTER	0.62	0.51	6.16	1.65
FOR POINT: B BEFORE	0.63	0.47	5.55	1.72
FOR POINT: B AFTER	0.52	0.51	3.42	1.60
FOR POINT: C BEFORE	0.62	0.54	10.04	5.53
FOR POINT: C AFTER	0.68	0.50	6.05	2.09
FOR POINT: D BEFORE	0.57	0.53	9.99	4.17
FOR POINT: D AFTER	0.59	0.55	7.78	2.09
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

12/02/81

1.625	0.0
1.582	2.9
2.199	7.1
2.832	11.2
3.252	14.5
3.736	17.7
4.276	20.5
5.461	25.3
6.261	28.2
6.760	29.8
6.938	31.5
7.411	35.1
8.057	38.5
.000	-1.0
1.625	0.0
1.617	2.9
2.159	6.6
2.791	11.6
3.134	14.3
3.443	15.9
3.824	18.7
4.881	23.0
6.425	25.7
6.759	29.9
6.938	31.5
7.411	35.1
8.057	38.5
.000	-1.0

SWASH VELOCITY FOR: 27/02/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.56	0.53	4.49	1.38
FOR POINT: A AFTER	0.56	0.53	4.49	1.38
FOR POINT: B BEFORE	0.61	0.52	5.95	2.08
FOR POINT: B AFTER	0.59	0.56	4.89	2.33
FOR POINT: C BEFORE	0.59	0.58	6.60	4.31
FOR POINT: C AFTER	0.63	0.57	6.32	5.25
FOR POINT: D BEFORE	0.00	0.00	0.00	0.00
FOR POINT: D AFTER	0.00	0.00	0.00	0.00
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

27/02/81

1.625	0.0
2.000	5.4
2.430	7.0
2.405	10.2
3.245	14.6
3.772	17.7
4.053	19.7
5.040	23.2
5.471	24.3
6.159	27.2
6.872	29.4
7.430	32.0
7.939	36.7
0.000	-1.0
1.625	0.0
2.000	5.4
2.430	7.0
2.565	10.3
3.210	14.3
4.090	18.4
4.591	21.4
5.080	22.6
5.445	24.0
6.159	27.2
6.872	29.4
7.430	32.0
7.939	36.7
.000	-1.0

SWASH VELOCITY FOR: 14/03/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.45	0.47	2.32	1.09
FOR POINT: A AFTER	0.50	0.53	2.34	1.19
FOR POINT: B BEFORE	0.51	0.43	3.26	0.87
FOR POINT: B AFTER	0.50	0.56	2.60	0.64
FOR POINT: C BEFORE	0.47	0.51	3.19	1.04
FOR POINT: C AFTER	0.48	0.51	3.78	1.30
FOR POINT: D BEFORE	0.00	0.00	0.00	0.00
FOR POINT: D AFTER	0.00	0.00	0.00	0.00
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

14/03/81

1.625	0.0
1.550	1.0
2.154	3.2
2.706	5.9
2.850	7.1
3.210	11.3
3.527	14.0
3.730	16.5
4.042	20.4
4.848	27.3
5.618	32.2
6.304	34.4
6.656	35.3
7.537	36.6
.000	-1.0
1.625	0.0
1.541	1.0
2.219	4.2
2.860	7.5
3.213	10.9
3.467	14.6
3.890	18.6
4.202	22.5
4.993	28.3
5.618	32.2
6.304	34.4
6.656	35.3
7.537	36.6
.000	-1.0

SWASH VELOCITY FOR: 10/04/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.51	0.58	5.07	2.38
FOR POINT: A AFTER	0.46	0.57	4.47	3.30
FOR POINT: B BEFORE	0.50	0.51	4.75	1.96
FOR POINT: B AFTER	0.46	0.47	3.96	2.77
FOR POINT: C BEFORE	0.49	0.55	4.29	3.02
FOR POINT: C AFTER	0.49	0.55	4.29	3.02
FOR POINT: D BEFORE	0.00	0.00	0.00	0.00
FOR POINT: D AFTER	0.00	0.00	0.00	0.00
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

10/04/81

1.625	0.0
1.893	4.2
2.407	6.3
2.480	10.3
3.281	11.8
3.661	13.5
4.487	19.0
5.105	25.0
5.775	32.0
6.089	35.9
0.000	-1.0
1.625	0.0
1.893	4.2
2.407	6.3
2.480	10.3
3.289	12.8
3.800	14.2
4.200	17.4
4.585	20.3
5.175	25.1
5.843	32.3
6.111	36.6
.000	-1.0

SWASH VELOCITY FOR: 25/04/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.51	0.45	3.52	0.87
FOR POINT: A AFTER	0.51	0.45	3.52	0.87
FOR POINT: B BEFORE	0.45	0.47	2.37	0.68
FOR POINT: B AFTER	0.45	0.47	2.37	0.68
FOR POINT: C BEFORE	0.40	0.50	1.79	0.65
FOR POINT: C AFTER	0.47	0.43	2.82	3.27
FOR POINT: D BEFORE	0.51	0.58	3.64	1.04
FOR POINT: D AFTER	0.50	0.49	4.36	5.64
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

SWASH VELOCITY FOR: 09/05/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.48	0.55	4.41	1.39
FOR POINT: A AFTER	0.51	0.47	3.72	1.26
FOR POINT: B BEFORE	0.49	0.44	4.62	1.33
FOR POINT: B AFTER	0.48	0.41	2.83	1.05
FOR POINT: C BEFORE	0.57	0.55	10.72	8.20
FOR POINT: C AFTER	0.55	0.52	8.85	6.00
FOR POINT: D BEFORE	0.00	0.00	0.00	0.00
FOR POINT: D AFTER	0.00	0.00	0.00	0.00
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

09/05/81

1.625	0.0
1.574	2.9
2.266	6.9
3.166	10.8
3.813	14.7
4.142	17.0
4.687	21.2
5.076	23.5
5.313	27.5
5.514	30.6
6.253	36.3
.000	-1.0
1.625	0.0
1.569	2.0
1.812	4.6
2.352	7.2
2.836	9.5
3.466	14.3
4.106	17.7
4.766	23.6
5.437	28.0
5.683	29.7
5.883	34.1
6.253	36.3
.000	-1.0

SWASH VELOCITY FOR: 01/06/81 SEDIMENT SAMPLE DATA

	FOLK-1	FOLK-2	C-AXIS	ST.D.
FOR POINT: A BEFORE	0.51	0.41	5.25	1.23
FOR POINT: A AFTER	0.51	0.41	5.25	1.23
FOR POINT: B BEFORE	0.51	0.50	6.11	2.55
FOR POINT: B AFTER	0.54	0.46	5.24	2.12
FOR POINT: C BEFORE	0.57	0.48	7.28	5.24
FOR POINT: C AFTER	0.55	0.48	6.08	4.00
FOR POINT: D BEFORE	0.59	0.57	12.83	8.26
FOR POINT: D AFTER	0.60	0.59	12.66	7.61
FOR POINT: E BEFORE	0.00	0.00	0.00	0.00
FOR POINT: E AFTER	0.00	0.00	0.00	0.00

01/06/81

1.625	0.0
1.764	3.0
2.329	7.2
2.629	10.7
3.084	14.3
3.812	19.8
4.519	24.0
5.282	27.6
6.253	31.3
6.776	33.3
6.944	34.2
7.914	36.9
.000	-1.0
1.625	0.0
1.850	4.2
2.213	6.6
2.590	11.0
2.986	14.1
3.572	19.0
4.053	21.0
4.757	25.1
5.233	27.3
5.976	30.3
6.736	33.2
7.017	34.3
7.881	36.9
.000	-1.0