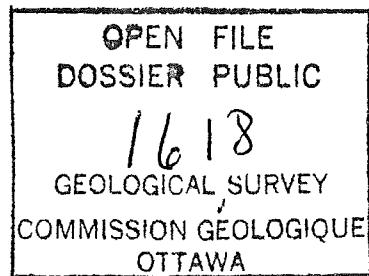


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Report No. EPGS-DOM.10-86AMV

Vitrinite Reflectance (Ro Max)
of coal samples from
Soquip et al. Tyrone No. 1



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Vitrinite Reflectance (Ro Max) of coal samples from Soquip et al. Tyrone No.1

G.S.C. Locality No: D143 Location: 46°16'15"N, 63°20'19"W

R.T. Elevation: 3760' Ground Level: 362.6' Total Depth: 13,688'

Sample Interval: 170-13,670' Interval Studied: 8500-10,440'

Information Release: July 19, 1977 Depth Units: feet referenced to R.T.

At the request of J.S. Bell, vitrinite reflectance (Ro Max by rotation) has been determined on 9 coal samples, separated mechanically from selected rotary cuttings (Table II) for the purpose of establishing the amount of stratigraphic section missing due to erosion.

Soquip et al. Tyrone No. 1 is classified as a new-field wildcat well, located on Prince Edward Island approximately 21 km (13 miles) west of Charlottetown.

Reflectances were determined using the Zeiss Photomultiplier III Zonax microcomputer system. Improved software provides three dynamic histograms that are continuously updated as the reflectance data are acquired. Sample preparation followed the procedures listed in Appendix I.

The analysis of the well revealed the thermal maturation levels given in Table I. Specific maturation levels as set out in this report were based on those of Dow (1977) with modified terminology. These data suggest that approximately 3500 feet of section were removed by erosion.

Table I
Inferred Thermal Maturation Levels**

(g.l. - 544')*	0.36-0.4	% Ro	immature
(544-1975')*	0.4-0.5	% Ro	immature approaching maturity
(1975-3064')*	0.5-0.6	% Ro	m marginally mature
(3064')*	0.6	% Ro	onset of significant oil generation
(4780')*	0.8	% Ro	peak of oil generation
(6112')*	1.0	% Ro	onset of significant wet gas generation
(7200')*	1.2	% Ro	onset of significant dry gas generation
7903'	1.35	% Ro	oil floor
10,249'	2.0	% Ro	wet gas floor
(12,669')*	3.0	% Ro	dry gas floor
(T.D.=13,488')*	3.56	% Ro	

* Bracketed depths have been projected at 0.239 log Ro/km maturation gradient.

** Maturation levels provided for all types of organic matter. Actual hydrocarbon products depend on type of organic matter present.

Remarks

The samples from this well are grouped into two small sections of Pennsylvanian strata from the Pictou Group at depths 8750 and 10,000' (Hacquebard, 1986, Figure 6; Barss *et al.*, 1976). Figure 1 shows the dispersal of the samples that cover only the lower section of the well. A linear regression line of Ro data was calculated for these samples by the least squares method and plotted on a semi-log scale (Figure 1). The slope of this line is 0.239 log Ro/km.

The reflectance histograms (Appendix III) show essentially single populations with normal distributions and therefore they support the reliability of these data.

The slope of the maturation profiles of the wells is similar to the slope of the Maritime coalification curve; 0.212 log Ro/km (Hacquebard, 1975). The zero level of maturity is usually considered to be approximately 0.2 % Ro Max (Dow, 1977). This conclusion is supported by maturation gradients that have been determined for numerous Canadian east coast offshore wells that are believed to be at maximum burial depth at present. Two examples are the Scotian Shelf Wenonah J-75 well (Avery, 1986) and the southern Grand Banks Puffin B-90 well (Avery, 1985). The zero level in these wells are 0.198 % Ro and 0.210 % Ro respectively. The amount of overburden eroded is based on the projection of the maturation gradient to 0.20 % Ro Max. At Tyrone No. 1 a projection of the maturation gradient to 0.20 % Ro yields an estimate of 3492' of removed section.

These vitrinite reflectance maturation data also provide evidence that the thermal regime at Tyrone No. 1 was suitable for the generation and preservation of hydrocarbons within the drilled section assuming potential source rocks and traps are present.

References

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- Dow, W.G., 1977. Kerogen studies and geological interpretations. Journal of Geochemical Exploration, no. 7, p. 79-99.

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December 4, 1986

A.M. Vonk/M.P. Avery
Eastern Petroleum Geology Subdivision

AMV/nk

c.c. J.S. Bell, I.S.P.G., Calgary
K.D. McAlpine, E.P.G.S., Dartmouth
P.A. Hacquebard, E.P.G.S., Dartmouth
A.E. Jackson, E.P.G.S., Dartmouth
E.P.G.S. Files, Dartmouth
G.R. Campbell, C.O.G.L.A., Ottawa
C. Beaumont, Dalhousie, Halifax
H.J. Maccagno, C.O.G.L.A., Halifax
Central Technical Files, Ottawa

Table II
Data Summary

Seq. #	Sample #	Depth in feet	Ro Max (S.D.)	Number of readings
1	PH 1416	8500	1.54 (.08)	50
2	PH 1417	8680	1.46 (.06)	50
3	PH 1418	8850	1.57 (.11)	20
4	PH 1419	9790	1.88 (.12)	50
5	PH 1420	9880	1.93 (.11)	50
6	PH 1421	9970	2.01 (.12)	50
7	PH 1422	10140	1.92 (.11)	50
8	PH 1423	10370	2.04 (.10)	35
9	PH 1424	10440	1.98 (.11)	50

Table III
Formation tops (Soquip et al., 1975)

Red bed unit	0-3090'
Pictou Group	3090-4300' 4300-10750'
*	
Canso Group	10750-12800'
Windsor Group	12800-13670'

* Unconformity between these two groups

Table IV
Pictou Group (Barss et al., 1979)

Age	Spore Zone	Depth
Stephanian	D Potoniesporites	4290-5960'
Westphalian C	B Torispora	8240-9550'
Westphalian Early C	A Vestispora	9830-10250'
Viséan (Late)	-	10330-12610'

Depth in Feet x1000 & Km

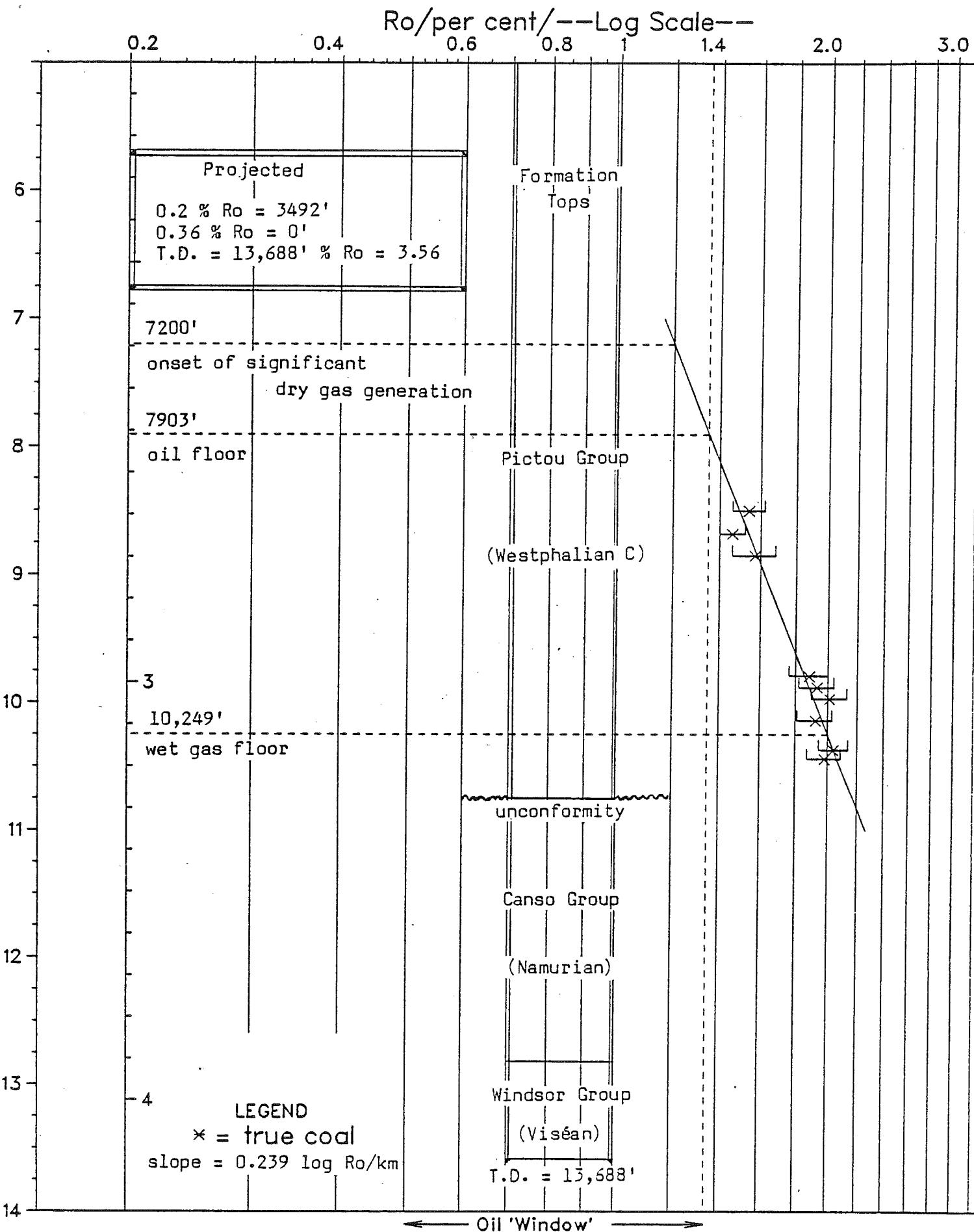


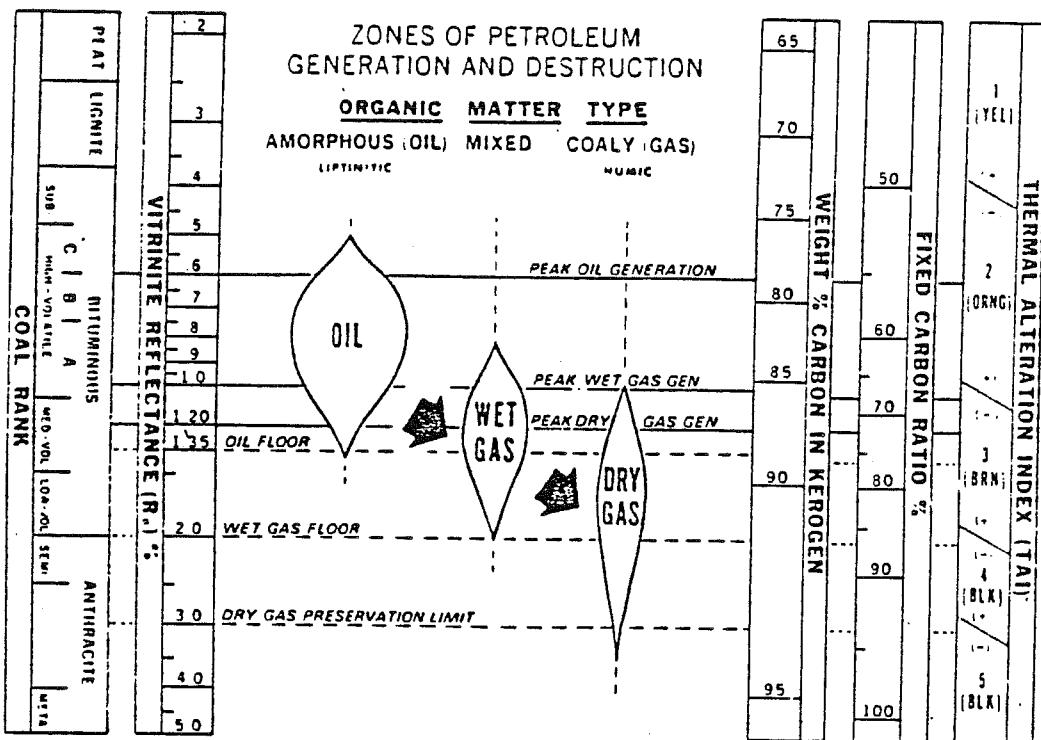
Fig. 1 Tyrone #1 % Ro Max

Appendix I

Sample preparation

- sample locations to be examined were selected by visual estimates of % of coal particles in prewashed rotary cuttings.
- selected samples were washed to remove drilling mud
- specific gravity separation using tetrachloro ethylene (C_2Cl_2 s.g.= 1.62)
- coal mounted using epoxy resin (epo-tek-301) in predrilled plastic stubs and 1" diameter molds
- mounted samples were polished using modified coal petrology methods
- examined under immersion oil with total magnification of 1000 x

Appendix II (Dow, 1977)



Note: For these reports, the terminology used to describe the various maturation levels has been modified. The 'peak' designation, as used in this figure, has been changed to 'onset of significant' and 0.8 R_o is now used as the 'peak of oil generation' (Table I, Figure 1).

Appendix III

Vitrinite Reflectance Histograms

FILE >> PH1416 DESCRIPTION FOLLOWS :
 INT. >8490'-8500', TYRONE #1 , AMV, NOV-21-86

COL> 1 2 3 4 5 6 7 8 9 0

RND

ROW	1	2	3	4	5	6	7	8	9	0
1	1.45	1.47	1.35	1.32	1.26	1.44	1.34	1.38	1.26	.94
2	1.44	1.55	1.42	1.43	1.48	1.54	1.21	1.48	1.50	1.38
3	1.30	1.28	1.43	1.18	1.43	1.62	1.48	1.36	1.27	1.16
4	1.64	1.49	1.48	1.14	1.08	1.55	1.08	1.11	.94	1.24
	1.20	1.39	1.09	1.20	1.31	1.37	1.48	1.11	1.47	1.46

MAX

ROW	1	2	3	4	5	6	7	8	9	0
1	1.62	1.51	1.56	1.54	1.44	1.64	1.53	1.67	1.62	1.44
2	1.53	1.56	1.49	1.49	1.52	1.63	1.54	1.49	1.57	1.71
3	1.47	1.45	1.59	1.50	1.72	1.64	1.53	1.53	1.58	1.57
4	1.71	1.60	1.57	1.50	1.57	1.55	1.50	1.45	1.36	1.46
	1.49	1.42	1.41	1.49	1.60	1.51	1.58	1.53	1.56	1.53

MIN

ROW	1	2	3	4	5	6	7	8	9	0
1	1.27	1.44	1.32	1.16	1.14	1.14	1.32	1.04	.89	.95
2	1.42	1.00	1.09	1.42	1.09	1.52	1.05	1.07	1.08	1.02
3	.96	1.23	.94	1.17	1.38	1.51	1.44	.98	1.24	1.02
4	1.62	1.42	1.42	.95	1.06	1.05	1.02	1.08	.93	1.10
	1.15	.97	1.05	1.14	1.25	1.28	1.25	1.07	1.41	1.28

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.34	.17	.94	1.64	66.96
MAX >	1.54	.08	1.36	1.72	77.07
MIN >	1.18	.18	.89	1.62	58.8

V-TYPES FREQUENCY (PERCENT)

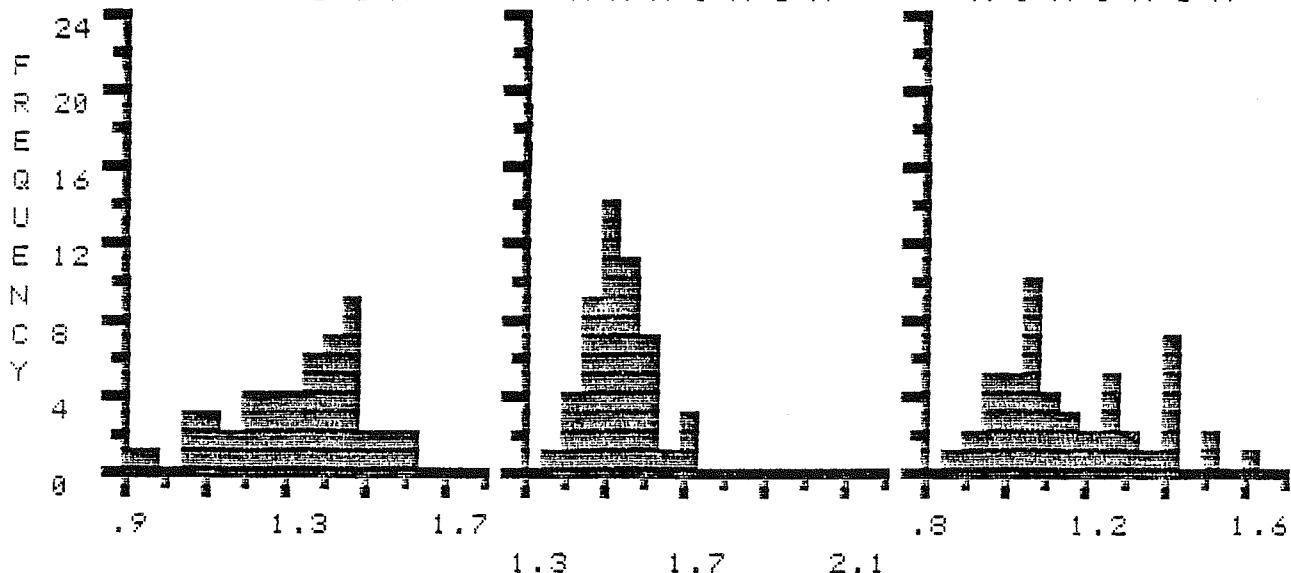
	V 8	V 9	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17
RND >		4 %	6 %	10 %	16 %	20 %	32 %	8 %	4 %	
MAX >						2 %	26 %	50 %	16 %	6 %
MIN >	2 %	14 %	30 %	14 %	14 %	6 %	14 %	4 %	2 %	

% R E F L E C T A N C E

R A N D O M

M A X I M U M

M I N I M U M



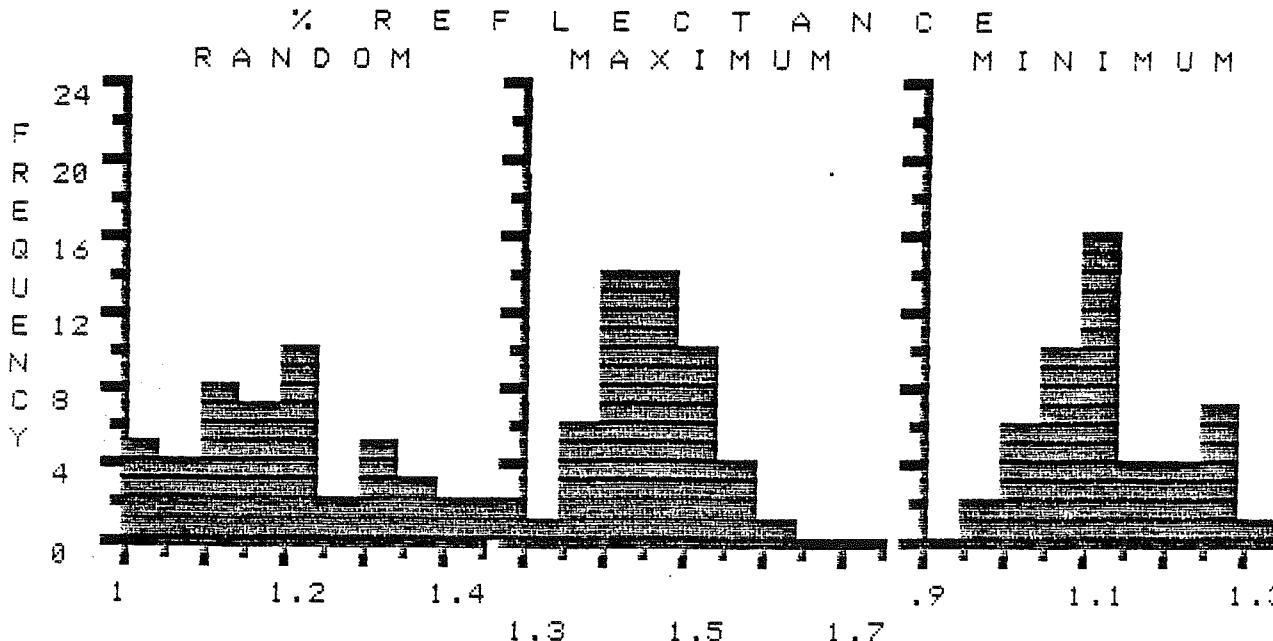
FILE >> PH1417 DESCRIPTION FOLLOWS :
 INT. >8660'-8680', TYRONE #1 , AMV, NOV-21-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.14	1.37	1.15	1.21	1.22	1.38	1.31	1.17	1.57	1.18
1	1.04	1.16	1.35	1.31	1.14	1.08	1.45	1.17	1.27	1.10
2	1.24	1.24	1.23	1.02	1.24	1.14	1.05	1.09	1.32	1.19
3	1.24	1.13	1.16	1.30	1.42	1.09	1.23	1.02	1.03	1.01
4	1.28	1.14	1.32	1.57	1.13	1.23	1.24	1.41	1.48	1.14
MAX										
ROW	1.45	1.60	1.40	1.50	1.39	1.52	1.47	1.45	1.59	1.44
1	1.44	1.44	1.41	1.39	1.43	1.46	1.48	1.42	1.39	1.41
2	1.33	1.47	1.54	1.53	1.47	1.46	1.40	1.37	1.50	1.40
3	1.46	1.51	1.43	1.46	1.51	1.40	1.56	1.49	1.35	1.47
4	1.46	1.35	1.52	1.57	1.43	1.53	1.43	1.55	1.50	1.46
MIN										
ROW	1.13	1.27	1.03	1.12	1.13	1.21	1.28	1.07	1.08	1.13
1	1.04	1.16	1.18	1.08	1.14	1.06	1.27	1.07	1.18	1.08
2	1.10	1.20	1.23	.99	1.12	1.13	1.04	1.06	1.28	1.14
3	1.04	1.11	1.10	1.28	1.27	1.09	1.12	1.00	.99	1.01
4	1.26	1.13	1.18	1.06	1.06	1.10	1.12	1.34	1.20	1.11

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.22	.14	1.01	1.57	61.1
MAX >	1.46	.06	1.33	1.60	72.99
MIN >	1.13	.09	.99	1.34	56.57

V-TYPES	FREQUENCY (PERCENT)
	V 9 V 10 V 11 V 12 V 13 V 14 V 15 V 16
RND >	18 % 30 % 24 % 16 % 8 % 4 %
MAX >	14 %
MIN >	56 % 28 % 2 %
	4 % 32 % 40 % 22 %



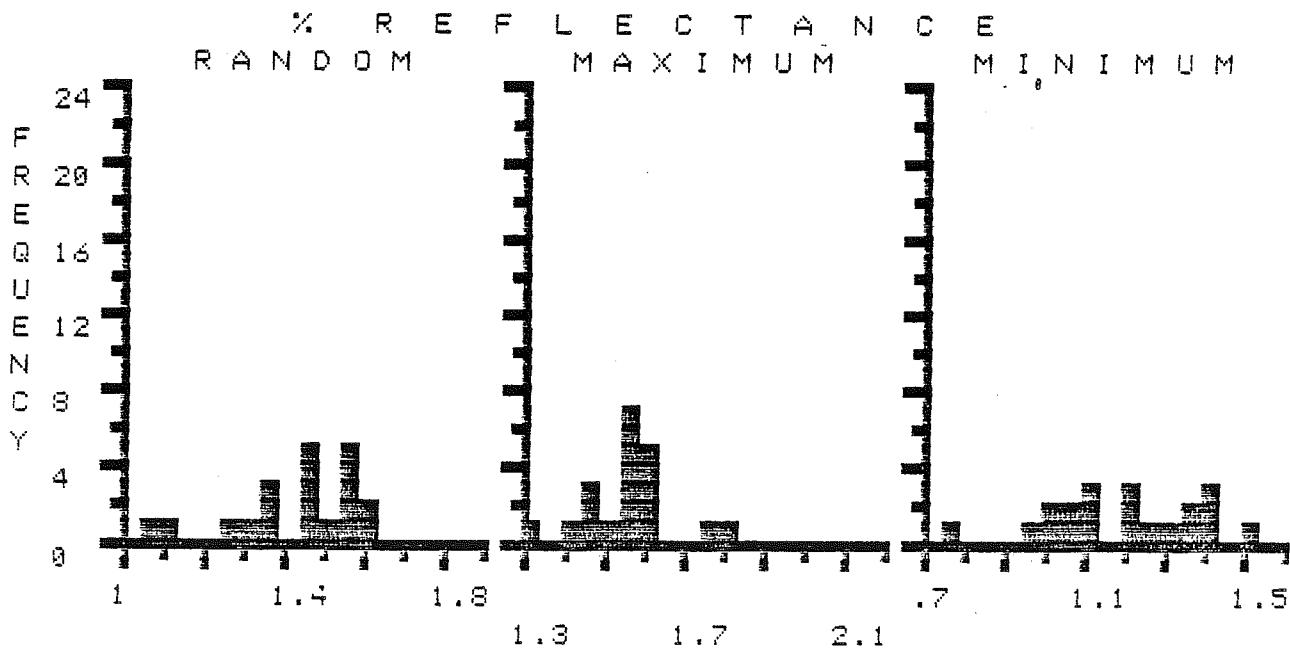
FILE >> PH1418 DESCRIPTION FOLLOWS :
INT. >8830'-8850', TYRONE #1 , AMV, NOV-21-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.37	1.56	1.49	1.55	1.39	1.14	1.59	1.54	1.60	1.59
1	1.45	1.39	1.45	1.56	1.47	1.46	1.61	1.32	1.25	1.08
MAX										
ROW	1.62	1.56	1.49	1.61	1.79	1.34	1.63	1.56	1.60	1.59
1	1.80	1.55	1.50	1.59	1.49	1.59	1.63	1.55	1.42	1.46
MIN										
ROW	.79	1.03	1.05	1.04	1.38	1.13	1.51	1.24	1.22	1.25
1	1.41	1.32	1.24	1.44	1.44	1.12	1.39	1.13	.99	1.07

STATISTICS BASED ON 20 POINTS.

	MEAN	STAND. DEV.	MIN	MAX	SUM
RND >	1.44	.15	1.08	1.61	28.86
MAX >	1.57	.11	1.34	1.80	31.37
MIN >	1.21	.19	.79	1.51	24.19

V-TYPES	FREQUENCY (PERCENT)									
	V 7	V 8	V 9	V 10	V 11	V 12	V 13	V 14	V 15	V 16
17 V 18										
RND >					5 %	5 %	5 %	29 %	25 %	30 %
MAX >								5 %	20 %	40 %
5 %	5 %									25 %
MIN >	5 %			5 %	20 %	15 %	20 %	15 %	15 %	5 %



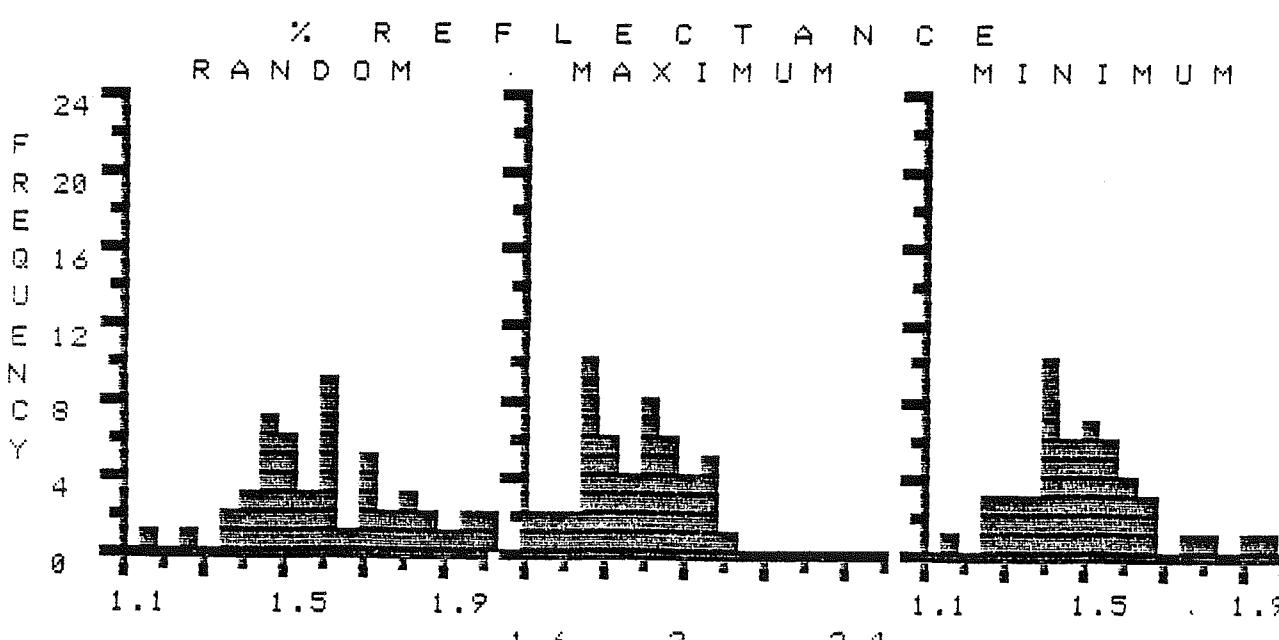
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 INT. >9770'-9790', TYRONE #1, AMV, NOV-22-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.45	1.73	1.80	2.00	1.53	1.74	1.86	1.60	1.98	1.45
1	1.92	1.61	1.57	1.49	1.62	1.99	1.82	1.46	1.26	1.43
2	1.77	1.64	1.61	1.50	1.59	1.70	1.70	1.41	2.00	1.69
3	1.79	1.53	1.48	1.85	1.39	1.50	1.63	1.46	1.59	1.53
4	1.71	1.39	1.49	1.64	1.19	1.64	1.61	1.83	1.41	1.52
MAX										
ROW	1.64	1.73	1.82	2.00	1.97	1.76	1.86	2.02	1.98	1.94
1	2.07	1.90	1.79	1.79	1.92	2.06	1.96	2.00	1.84	2.05
2	1.98	1.83	1.78	1.77	1.61	1.81	2.00	1.83	2.00	1.69
3	1.91	1.92	1.75	2.06	1.91	1.66	1.95	2.10	1.82	1.79
4	1.98	1.79	1.73	1.76	1.89	1.94	1.87	1.88	1.91	1.78
MIN										
ROW	1.43	1.46	1.68	1.65	1.40	1.30	1.44	1.58	1.91	1.44
1	1.54	1.60	1.41	1.46	1.56	1.98	1.34	1.43	1.25	1.43
2	1.76	1.58	1.55	1.49	1.25	1.59	1.67	1.41	1.52	1.52
3	1.68	1.50	1.39	1.84	1.37	1.47	1.51	1.29	1.56	1.45
4	1.63	1.38	1.42	1.64	1.17	1.53	1.34	1.49	1.40	1.51

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.62	.19	1.19	2.00	81.1
MAX >	1.88	.12	1.61	2.10	93.88
MIN >	1.50	.16	1.17	1.98	75.12

V-TYPES	FREQUENCY (PERCENT)									
	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19	V 20
21										
RND >	2 %	2 %	4 %	20 %	18 %	20 %	14 %	10 %	6 %	4 %
MAX >							8 %	24 %	20 %	28 %
2 %										
MIN >	2 %	6 %	12 %	32 %	26 %	14 %	2 %	2 %	4 %	



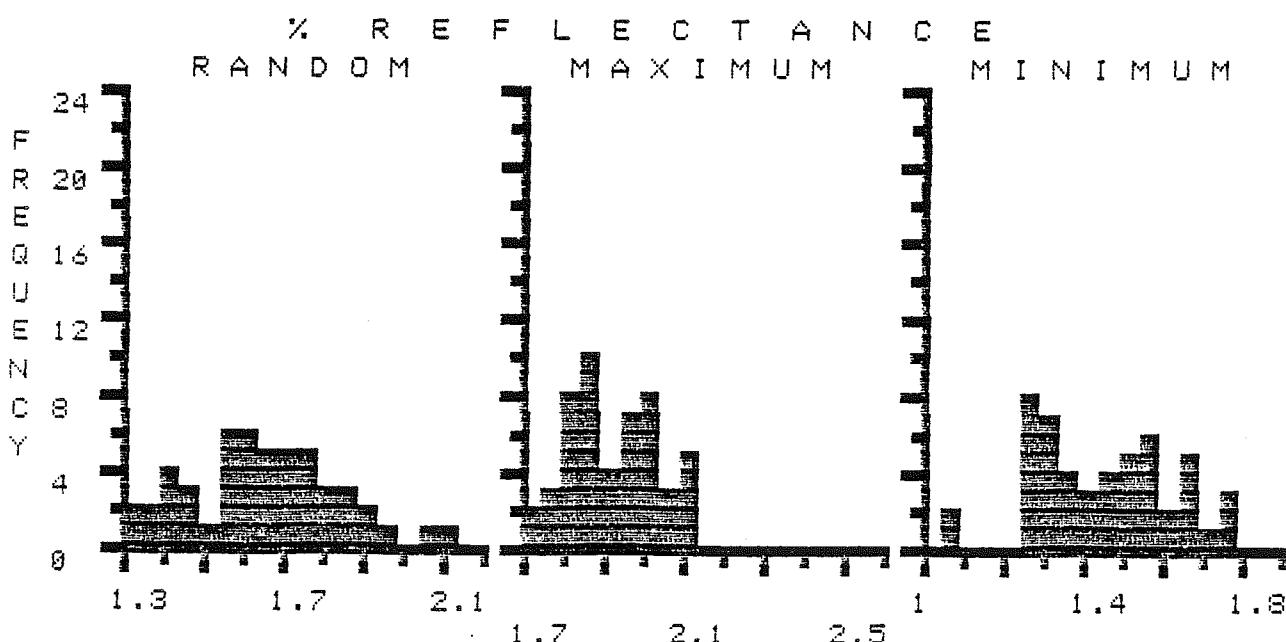
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 INT. >> 9870'-9880', TYRONE #1, AMV, NOV-22-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	2.05	1.89	1.91	1.75	1.67	1.84	1.45	1.55	1.56	1.61
1	1.75	1.69	2.11	1.56	1.74	1.43	1.47	1.81	1.64	1.38
2	1.95	1.37	1.80	1.63	1.85	1.72	1.94	1.59	1.43	1.38
3	1.36	1.85	1.65	1.74	1.48	1.67	1.65	1.60	1.78	1.72
4	1.76	1.79	1.63	1.57	1.41	1.52	1.59	1.40	1.70	1.62
MAX										
ROW	2.05	1.89	2.04	1.81	1.91	2.14	1.98	1.86	2.07	1.80
1	1.98	1.91	2.14	1.83	2.04	2.13	2.14	1.86	1.87	1.91
2	1.95	2.02	1.98	1.99	1.87	2.01	1.95	1.78	1.87	1.86
3	1.78	1.89	1.83	1.84	1.87	1.75	1.74	2.02	1.81	2.06
4	1.99	2.00	1.94	2.02	2.13	2.00	1.81	1.86	1.84	1.72
MIN										
ROW	1.42	1.67	1.76	1.65	1.63	1.50	1.35	1.46	1.54	1.59
1	1.31	1.35	1.49	1.30	1.07	1.29	1.28	1.26	1.40	1.26
2	1.29	1.36	1.55	1.47	1.29	1.66	1.76	1.57	1.38	1.27
3	1.34	1.55	1.09	1.65	1.45	1.62	1.42	1.38	1.70	1.31
4	1.65	1.78	1.52	1.57	1.33	1.51	1.55	1.29	1.53	1.39

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.66	.19	1.30	2.11	82.9
MAX >	1.93	.11	1.72	2.14	96.54
MIN >	1.45	.17	1.07	1.78	72.65

V-TYPES	FREQUENCY (PERCENT)									
	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19
20 V 21										
RND >					8 %	14 %	14 %	22 %	20 %	12 %
2 % 2 %										6 %
MAX >									10 %	36 %
22 % 10 %										22 %
MIN >	4 %			16 %	22 %	14 %	22 %	14 %	6 %	



FILE >> PH1421 DESCRIPTION FOLLOWS :
 INT. >9960'-9970', TYRONE #1, AMV, NOV-24-86

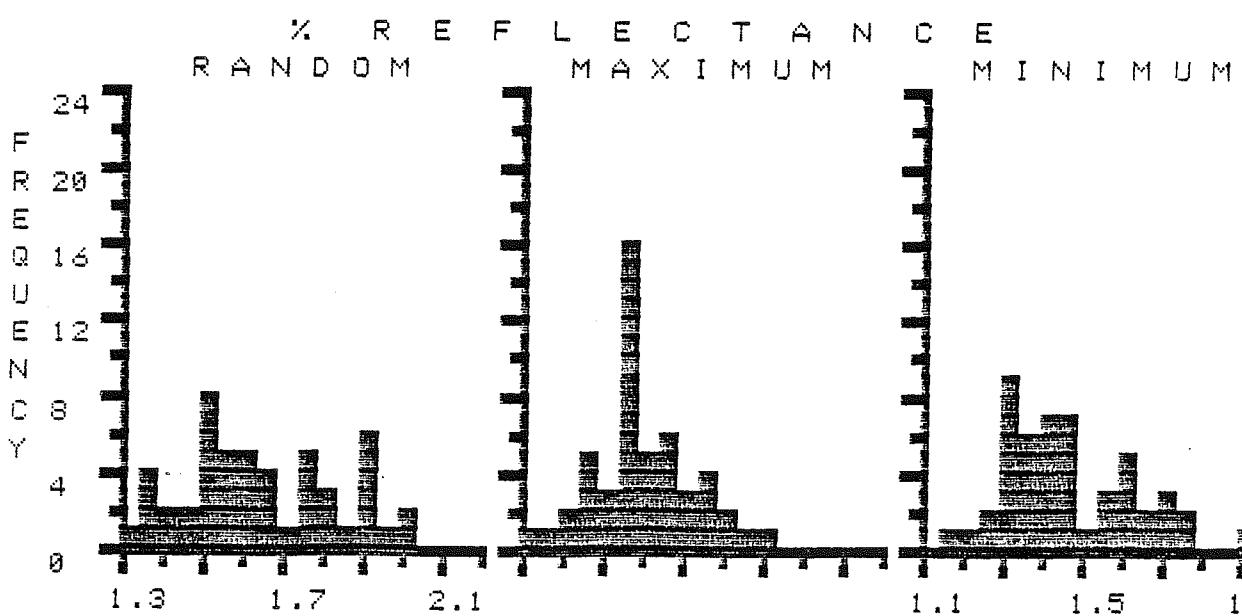
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.62	1.77	1.58	1.70	1.94	1.59	1.58	1.67	1.98	1.37
1	1.48	1.77	1.84	1.55	1.89	1.37	1.90	1.93	1.41	1.35
2	1.60	1.51	1.32	1.75	1.53	1.63	1.51	2.04	1.62	1.58
3	1.39	1.50	1.77	1.82	1.78	2.03	1.54	1.94	1.68	1.66
4	1.92	1.90	1.63	1.44	1.57	1.84	1.47	1.58	1.53	1.66
MAX										
ROW	1.99	2.05	1.99	2.03	2.07	2.00	1.96	1.82	2.03	1.78
1	1.96	1.95	2.17	1.97	2.16	2.16	2.05	2.10	2.21	1.88
2	1.89	1.98	2.27	1.91	1.96	1.99	2.15	2.30	1.97	2.12
3	1.98	1.86	2.09	2.01	2.03	2.23	1.90	1.94	2.06	2.07
4	2.14	1.97	1.96	1.84	1.98	1.87	1.96	1.97	1.72	1.87
MIN										
ROW	1.33	1.31	1.49	1.69	1.93	1.26	1.43	1.34	1.56	1.37
1	1.40	1.75	1.45	1.42	1.66	1.36	1.63	1.30	1.32	1.33
2	1.60	1.38	1.30	1.31	1.47	1.61	1.48	1.71	1.60	1.57
3	1.37	1.45	1.72	1.55	1.18	1.77	1.43	1.35	1.38	1.63
4	1.73	1.33	1.45	1.42	1.45	1.52	1.44	1.29	1.20	1.41

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.66	.19	1.32	2.04	82.87
MAX >	2.01	.12	1.72	2.30	100.32
MIN >	1.47	.16	1.18	1.93	73.43

V-TYPES FREQUENCY (PERCENT)

	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19	V 20
21	V 22	V 23								
RND >				10 %	8 %	26 %	18 %	12 %	8 %	14 %
MAX >								4 %	14 %	38 %
14 %	6 %	2 %								22 %
MIN >	2 %	6 %	30 %	28 %	8 %	14 %	10 %			2 %



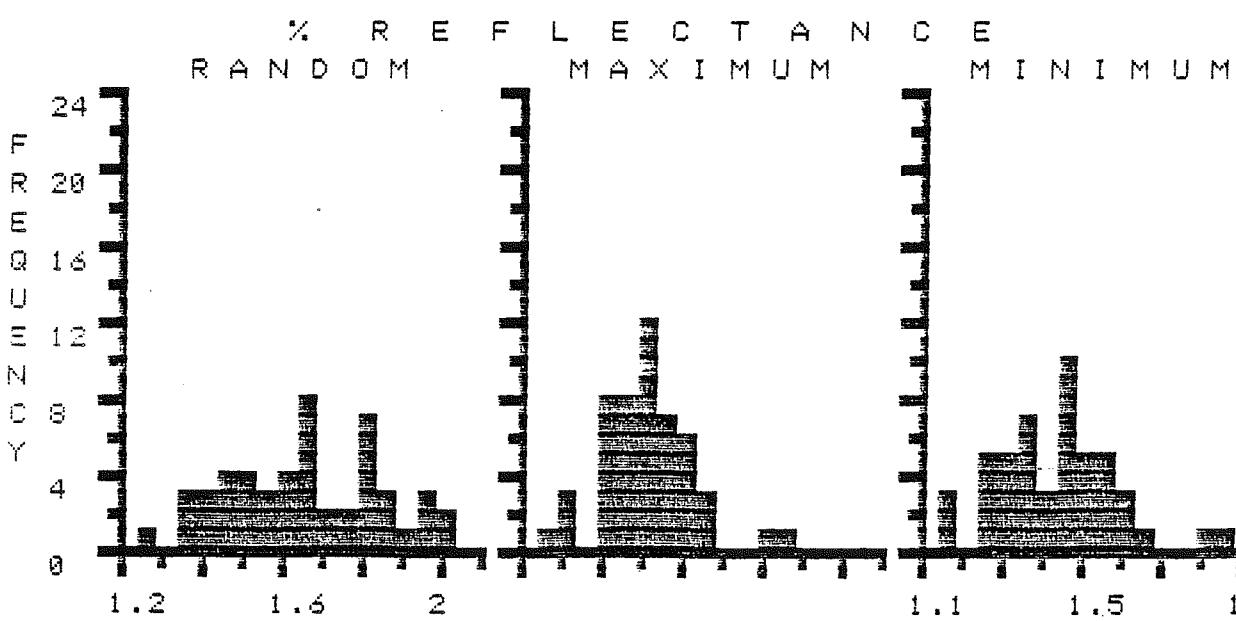
FILE >> PH1422 DESCRIPTION FOLLOWS :
 INT. >10130' - 10140', TYRONE #1, AMV, NOV-24-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.36	1.88	1.79	1.93	1.62	1.85	1.97	1.69	1.68	1.35
1	1.48	1.52	1.80	1.55	1.26	1.82	2.00	1.83	1.39	1.69
2	1.49	1.42	1.82	1.52	1.88	1.61	1.48	1.58	1.48	1.95
3	1.58	1.99	1.43	1.51	1.67	1.66	1.83	1.67	1.80	2.04
4	1.60	1.83	1.71	1.42	1.64	1.77	1.68	1.71	1.67	1.50
MAX										
ROW	1.86	1.90	1.86	2.21	2.01	2.07	1.97	1.83	2.29	1.93
1	1.88	1.93	1.97	1.96	1.91	1.88	2.01	1.83	1.82	1.82
2	2.04	1.95	2.02	1.90	1.91	1.84	1.80	1.96	1.98	2.05
3	1.93	2.03	1.90	1.90	1.96	1.86	1.85	1.83	1.89	2.05
4	1.67	1.84	1.71	1.90	1.89	1.93	1.73	2.00	1.70	1.98
MIN										
ROW	1.26	1.46	1.25	1.33	1.51	1.39	1.82	1.29	1.64	1.35
1	1.48	1.35	1.60	1.52	1.25	1.48	1.34	1.16	1.36	1.55
2	1.31	1.40	1.54	1.40	1.34	1.36	1.45	1.33	1.47	1.87
3	1.52	1.95	1.36	1.49	1.45	1.44	1.65	1.52	1.64	1.35
4	1.58	1.58	1.45	1.18	1.48	1.29	1.56	1.16	1.55	1.45

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.67	.19	1.26	2.04	83.4
MAX >	1.92	.11	1.67	2.29	95.86
MIN >	1.45	.17	1.16	1.95	72.51

V-TYPES	FREQUENCY (PERCENT)									
	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19	V 20
21 V 22										
RND >		2 %	6 %	14 %	14 %	24 %	8 %	20 %	8 %	4 %
MAX >							2 %	6 %	32 %	38 %
	4 %								16 %	
MIN >	6 %	10 %	24 %	26 %	20 %	8 %		4 %	2 %	



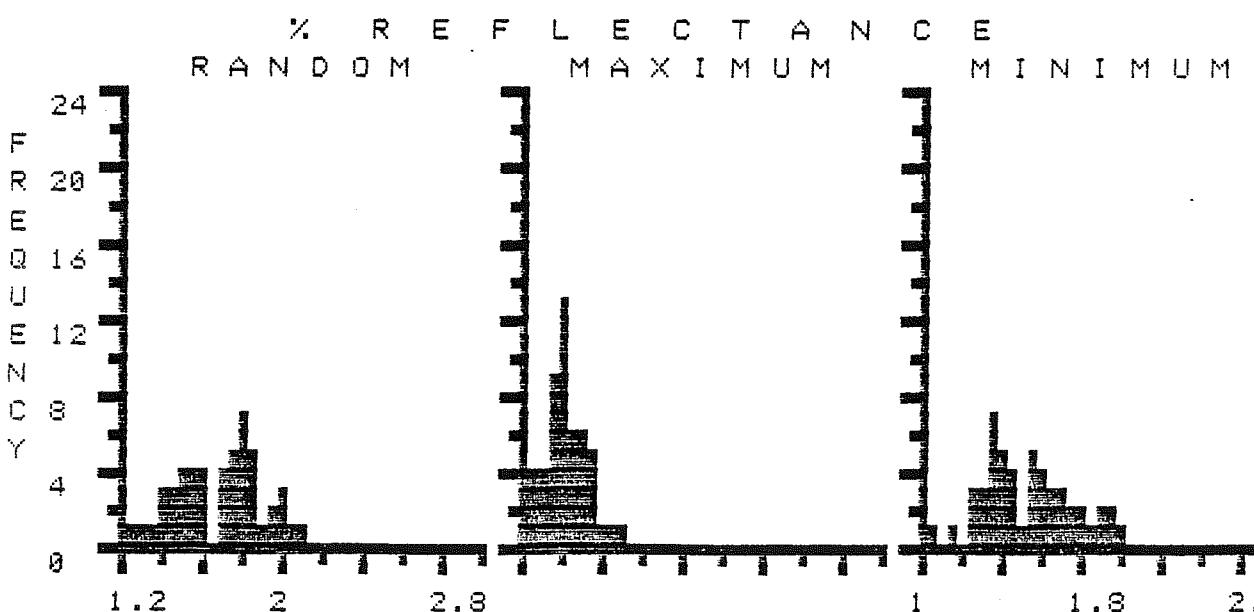
FILE >> PH1423 DESCRIPTION FOLLOWS :
 INT. >10360' -10370', TYRONE #1, AMV, NOV-25-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.46	1.27	1.39	1.75	1.80	1.58	1.84	1.95	2.08	1.56
1	2.02	1.79	1.83	1.44	1.88	1.72	1.81	1.58	2.04	1.92
2	1.53	2.13	1.72	1.47	1.86	1.86	1.34	1.63	1.70	1.60
3	1.51	1.50	1.56	1.79	1.62	1.70	1.43	1.49	1.89	1.82
4	1.75	1.61	1.80	1.77	1.82	1.87	1.51	1.98	1.40	2.04
MAX										
ROW	2.19	2.08	2.06	2.02	2.07	2.04	2.15	2.01	2.11	2.25
1	2.02	1.98	2.07	1.97	2.00	2.14	2.00	1.96	2.19	2.04
2	2.05	2.16	2.00	2.16	2.32	2.04	2.10	2.08	2.07	2.00
3	1.86	1.86	1.96	2.13	1.94	2.01	1.96	1.97	1.93	1.86
4	1.92	1.98	2.14	1.99	2.00	1.88	1.90	2.20	1.95	2.13
MIN										
ROW	1.32	1.25	1.36	1.36	1.45	1.44	1.44	1.93	1.98	1.55
1	1.42	1.74	1.68	1.27	1.87	1.39	1.80	1.57	1.68	1.91
2	1.38	2.03	1.71	1.31	1.25	1.79	1.34	1.63	1.05	1.57
3	1.37	1.49	1.44	1.77	1.62	1.67	1.36	1.44	1.53	1.58
4	1.61	1.57	1.46	1.71	1.80	1.61	1.47	1.97	1.39	1.19

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.71	.21	1.27	2.13	85.41
MAX >	2.04	.10	1.86	2.32	101.82
MIN >	1.55	.22	1.05	2.03	77.52

V-TYPES	FREQUENCY (PERCENT)									
	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19
20	V 21	V 22	V 23							
RND >				2 %	4 %	12 %	16 %	8 %	18 %	24 %
8 %	2 %									6 %
MAX >										
38 %	22 %	4 %	2 %							8 %
MIN >	2 %	2 %	6 %	20 %	18 %	12 %	14 %	10 %	6 %	8 %
2 %										



FILE >> PH1424 DESCRIPTION FOLLOWS :
 INT. >10430'-10440', TYRONE #1, AMV, NOV-25-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.58	1.62	2.00	1.53	1.47	1.49	2.07	1.54	1.93	1.23
1	1.81	1.95	1.76	1.51	1.34	1.61	1.54	1.84	1.81	1.60
2	1.53	1.48	1.57	1.65	1.60	1.77	1.76	1.69	1.77	1.89
3	1.65	1.48	1.59	1.65	1.82	1.99	1.67	1.45	1.38	1.63
4	1.54	1.45	1.82	1.90	1.71	1.47	1.69	1.40	1.76	1.63
MAX										
ROW	2.00	1.97	2.00	2.04	1.82	1.96	2.17	2.00	2.06	1.92
1	1.90	2.05	2.14	1.88	1.96	1.98	2.01	1.89	2.23	1.96
2	1.92	1.91	1.86	1.91	1.96	2.14	1.84	1.93	1.97	1.89
3	1.85	1.92	2.19	1.79	2.07	2.09	1.86	2.00	1.97	1.89
4	2.08	1.90	1.93	1.95	1.98	2.14	2.14	2.01	1.79	2.10
MIN										
ROW	1.38	1.26	1.69	1.48	1.45	1.47	1.86	1.56	1.51	1.15
1	1.46	1.45	1.69	1.50	1.23	1.24	1.26	1.31	1.47	1.36
2	1.42	1.11	1.45	1.17	1.34	1.50	1.34	1.28	1.40	1.33
3	1.46	1.47	1.51	1.64	1.47	1.67	1.58	1.44	1.37	1.52
4	1.51	1.45	1.31	1.86	1.38	1.23	1.25	1.22	1.69	1.62

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.65	.18	1.23	2.07	82.62
MAX >	1.98	.11	1.79	2.23	98.92
MIN >	1.43	.17	1.11	1.86	71.62

V-TYPES FREQUENCY (PERCENT)

	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18	V 19	V 20
21 V 22										
RND >		2 %	4 %	16 %	18 %	24 %	12 %	12 %	8 %	4 %
MAX >	14 %	2 %					4 %	18 %	38 %	24 %
MIN >	6 %	16 %	18 %	28 %	16 %	12 %		4 %		

X R E F L E C T A N C E
 RANDOM MAXIMUM MINIMUM

