Report No. EPGS-DOM.11-86AMV

Vitrinite Reflectance (Ro Max) of coal samples from Irving-Chevron-Texaco Cablehead E-95

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G.S.C. Locality No: D230 Location: 46°44'16.689"N, 62°29'42.356"W

R.T. Elevation: 27.84 m Water Depth: 54.7 m Total Depth: 3235 m

Sample Interval: 118-3235 m Interval Studied: 955-2725 m

Information Release: Sept. 7, 1985 Depth Units: metres referenced to R.T.

At the request of J.S. Bell, vitrinite reflectance (Ro Max by rotation) has been determined on 11 coal samples, separated mechanically from selected rotary cuttings (Table II) for the purpose of establishing the amount of stratigraphic section missing due to erosion.

Irving-Chevron-Texaco Cablehead E-95 is a new-field wildcat well, located in the Gulf of St. Lawrence, approximately 30 km (19 miles) north of Cablehead, Prince Edward Island.

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 (Appendix II). These data suggest that approximately 2260 m (7400 feet) of section were removed by erosion.

Table I
Inferred Thermal Maturation Levels**

(seafloor)*	0.54	% Ro	onset of significant oil generation
(897 m)*	0.8	% Ro	peak of oil generation
1405 m	1.0	% Ro	onset of significant wet gas generation
1820 m	1.2	% Ro	onset of significant dry gas generation
2089 m	1.35	% Ro	oil floor
(2984 m)*	2.0	% Ro	wet gas floor
(3908 m)*	3.0	% Ro	dry gas floor

* Bracketed depths have been projected at 0.191 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 span approximately 1800 m (5900 ft) of Pennsylvanian strata of the Pictou Group from depths 955 to 2725 m (Hacquebard, 1986, Figure 6; Barss et al., 1976). Figure 1 shows the dispersal of the samples which cover most of the well. A linear regression line of Ro data was calculated for the true coal samples by the least squares method and plotted on a semi-log scale (Figure 1). The slope of the line is 0.191 log Ro/km.

In this well, samples were typed as 'Bark Vitrain' if they contained only non-banded vitrinite. This indicates that their origin is probably from allochthonous woody material rather than stratified peat which produces normal banded coal. The non-banded vitrinite therefore is coalified in an environment which differs considerably from banded 'true coal' vitrinite. In general, 'Bark Vitrain' yields higher reflectance values than true coal at the same maturity level. Higher Ro values for this type of coal are also reported in Stach's textbook of Coal Petrology (Teichmüller, 1982). Therefore because they are considered less reliable they are not included in the calculation of the coalification gradient.

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 profile is slightly lower than the slope of the Maritime coalification curve; 0.212 log Ro/km (Hacquebard, 1975). The zero level of maturity is 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 Cablehead E-95 a projection of the maturation gradient to 0.20 % Ro yields an estimate of 2260 m (7400 ft) of removed section.

These vitrinite reflectance data also provide evidence that the thermal regime at Cablehead E-95 was suitable for the generation and preservation of hydrocarbon within the drilled section assuming potential source rocks and traps are present.

References

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December 4, 1986

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Table II

Data Summary

Seq. #	Sample #	Depth in metres	Ro Max (S.D.)	Number of readings
1	PH 1379	950-955	1.16 (.09)*	50
2	PH 1380	1080-1090	.97 (.10)**	40
3	PH 1381	1270-1275	1.21 (.10)*	50
4	PH 1382	1425-1430	1.22 (.10)*	50
5	PH 1383	1525-1530	1.06 (.05)	50
6	PH 1384	1720-1725	1.03 (.08)	50
7	PH 1385	1910-1920	1.29 (.09)	50
8	PH 1386	2070-2080	1.30 (.07)	35
9	PH 1387	2165-2170	1.71 (.09)	50
10	PH 1390	2505-2510	1.58 (.05)	50
11	PH 1392	2720-2725	1.68 (.07)	50

* Not included in Figure 1.

** Bark Vitrain not included in calculation of slope of Figure 1.

Table III

Formation tops (Chevron, 1983)

Permian	Unnamed red beds	Spudded
Pennsylvanian	Pictou	945 m
	Riversdale	2950 m

Table IV

Pictou Group (Hacquebard, 1986)

Age	Spore Zone	Depth
Stephanian	D Potoniesporites	945-1700'
Westphalian D	C Thymospora	1700-2075'
Westphalian Late C	B Torispora	2075-2300'
Westphalian Early C	A Vestispora	2300-2750'

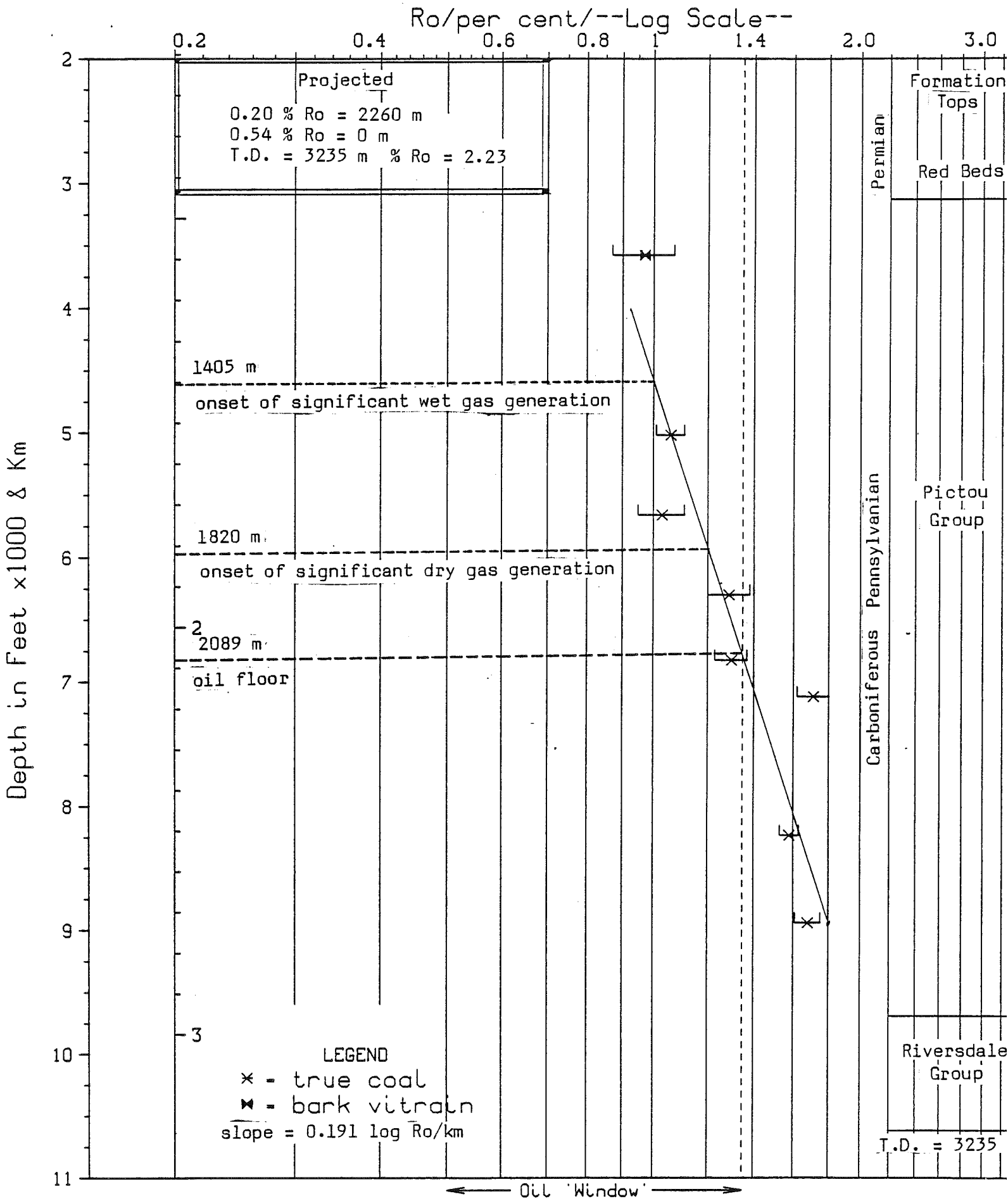


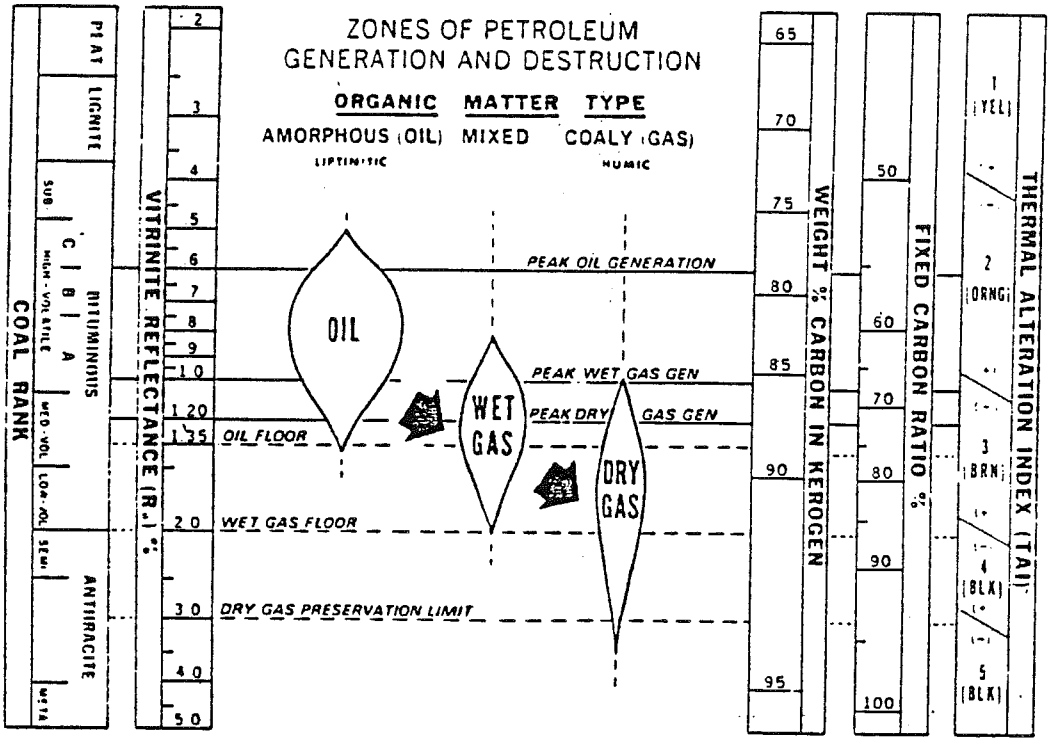
Fig. 1 Cablehead E-95 % RoMax

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 Ro is now used as the 'peak of oil generation' (Table I, Figure 1).

Appendix III

Vitrinite Reflectance Histograms

FILE >> PH1379 DESCRIPTION FOLLOWS :
INT. >950M-955M, CABLEHEAD E-95, AMV, NOV-13-86

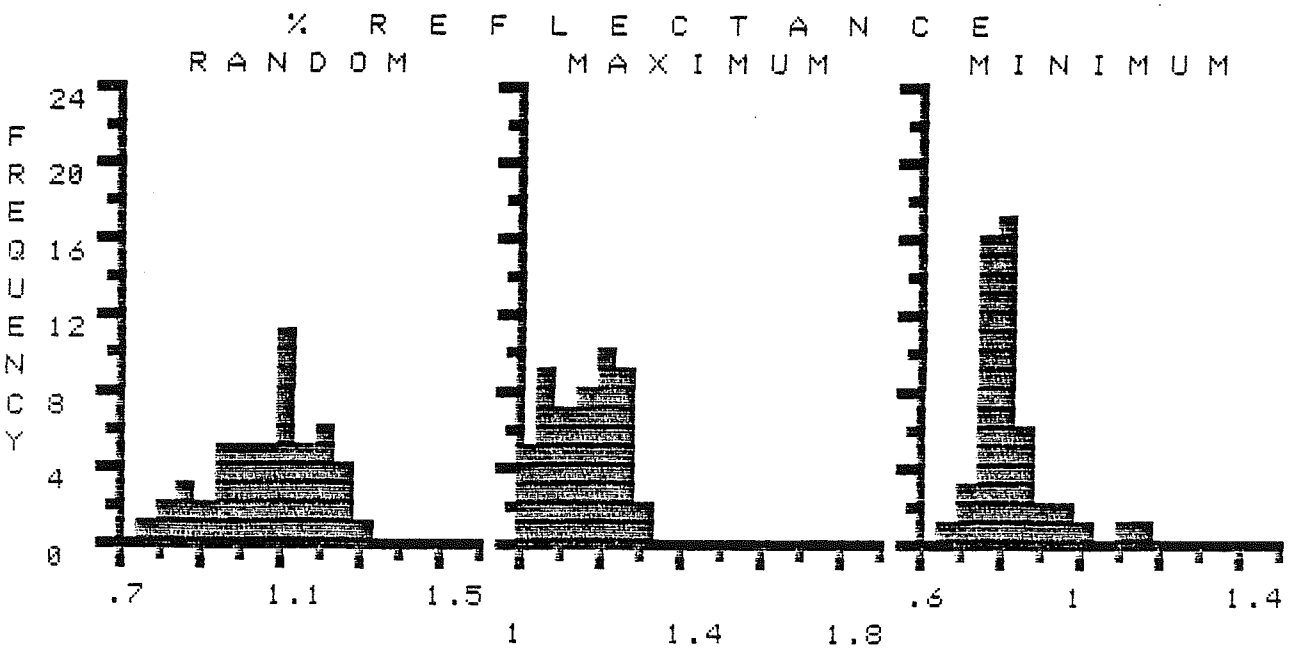
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.12	1.02	1.00	.89	.88	1.20	.93	.93	.78	1.09
1	1.12	.85	1.12	1.22	.95	.81	1.12	1.08	1.17	1.26
2	1.00	1.12	1.05	1.00	1.13	1.08	1.08	.95	1.19	1.23
3	.80	1.14	1.22	1.16	1.02	1.10	1.14	1.13	1.25	1.26
4	1.15	.95	1.30	1.22	.99	1.20	1.13	1.16	.97	1.25
MAX										
ROW	1.25	1.30	1.17	1.06	1.27	1.21	1.18	1.21	1.07	1.16
1	1.19	1.06	1.13	1.22	1.15	1.05	1.12	1.08	1.17	1.26
2	1.01	1.12	1.05	1.01	1.13	1.08	1.08	1.04	1.25	1.24
3	1.20	1.28	1.22	1.16	1.02	1.23	1.14	1.14	1.27	1.26
4	1.23	1.03	1.30	1.22	1.16	1.29	1.14	1.23	1.06	1.28
MIN										
ROW	.78	.78	.83	.78	.81	.81	.86	.83	.74	.83
1	.81	.83	.80	1.10	.89	.79	.89	.83	.84	.76
2	.78	.77	.75	.95	.92	.71	.74	.76	.65	.80
3	.78	.75	1.03	.85	.86	.82	.78	.78	.79	.81
4	.82	.84	.78	.97	.85	1.16	.78	.91	.81	.80

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.08	.13	.78	1.30	53.91
MAX >	1.16	.09	1.01	1.30	58.18
MIN >	.83	.09	.65	1.16	41.39

V-TYPES FREQUENCY (PERCENT)

	V 6	V 7	V 8	V 9	V 10	V 11	V 12	V 13
RND >		2 %	10 %	14 %	20 %	32 %	20 %	2 %
MAX >					28 %	30 %	38 %	4 %
MIN >	2 %	38 %	46 %	8 %	2 %	4 %		



FILE >> PH1381 DESCRIPTION FOLLOWS :
INT. >1270M-1275M, CABLEHEAD E-95, AMV, NOV-17-86

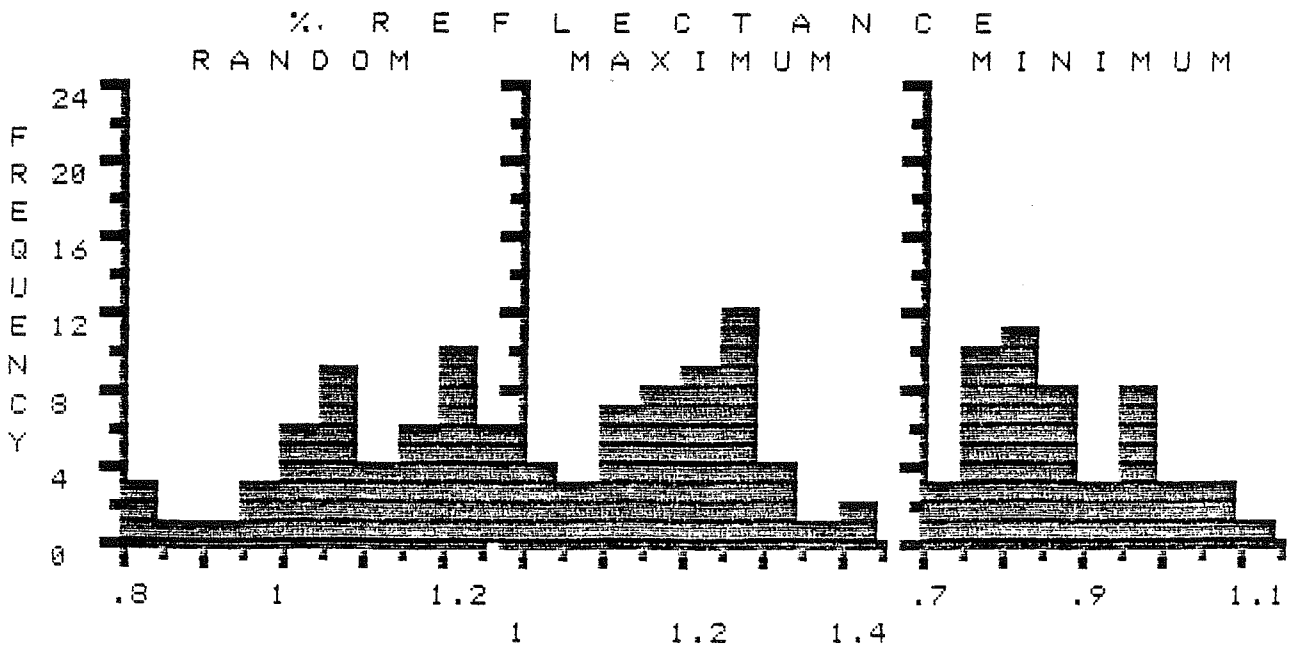
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.13	1.10	.81	.82	1.17	.84	1.03	1.16	1.03	1.07
1	.90	1.07	1.25	1.28	1.25	1.06	.89	1.01	.98	1.16
2	1.12	1.26	1.04	1.00	1.07	1.22	.99	1.23	1.23	1.05
3	1.09	1.17	1.21	.96	1.17	1.20	1.27	1.02	1.22	1.24
4	1.13	1.26	1.21	1.05	1.19	1.35	1.09	1.20	1.06	1.24
MAX										
ROW	1.17	1.14	1.12	1.11	1.29	1.11	1.04	1.20	1.09	1.19
1	1.22	1.14	1.26	1.28	1.25	1.34	1.10	1.29	1.31	1.19
2	1.13	1.26	1.04	1.01	1.09	1.22	1.17	1.28	1.23	1.05
3	1.40	1.18	1.28	1.26	1.22	1.31	1.38	1.02	1.22	1.28
4	1.26	1.27	1.22	1.19	1.19	1.42	1.23	1.21	1.15	1.30
MIN										
ROW	.91	.81	.77	.74	1.14	.80	.99	1.03	.97	.79
1	.86	.99	.96	.82	.79	1.02	.76	.81	.88	.78
2	.79	.91	.77	.80	.71	.92	.95	.81	1.06	.79
3	1.08	.74	.89	.95	.80	1.07	.99	.87	.87	.96
4	1.01	.86	.85	.78	.77	.84	.81	.84	.83	.89

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.11	.13	.81	1.35	55.55
MAX >	1.21	.10	1.01	1.42	60.31
MIN >	.88	.10	.71	1.14	43.83

V-TYPES FREQUENCY (PERCENT)

	V 7	V 8	V 9	V 10	V 11	V 12	V 13	V 14
RND >		8 %	8 %	30 %	20 %	32 %	2 %	
MAX >				14 %	30 %	42 %	10 %	4 %
MIN >	26 %	38 %	22 %	12 %	2 %			



FILE >> PH1382 DESCRIPTION FOLLOWS :
INT. >1425M-1430M, CABLEHEAD E-95, AMV, NOV-12-86

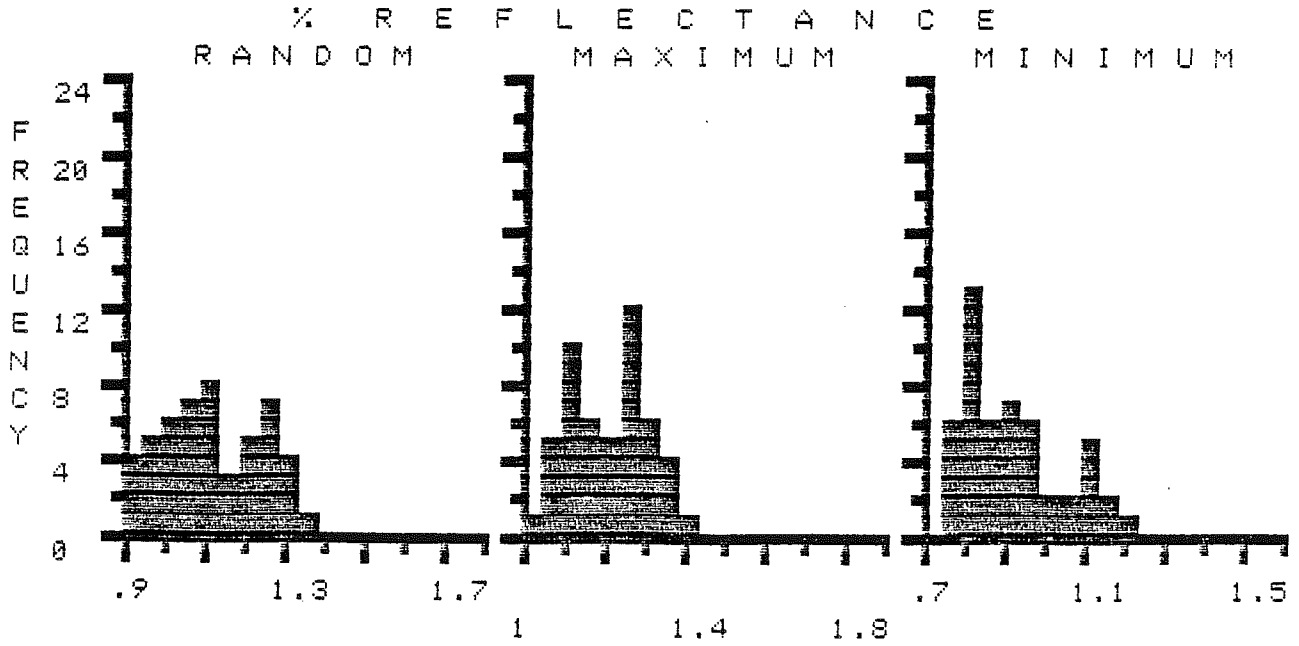
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	.96	1.10	1.24	1.32	1.07	1.14	1.21	.92	1.26	1.15
1	1.25	1.09	1.01	1.25	1.39	1.07	1.15	1.27	1.29	1.10
2	1.32	1.10	1.27	1.04	1.05	1.30	1.03	1.09	1.20	1.01
3	1.09	.94	1.22	.99	.99	1.13	1.26	1.08	1.16	1.30
4	1.14	.91	1.12	.99	.91	.97	1.03	1.00	1.10	1.24
MAX										
ROW	1.31	1.14	1.26	1.36	1.28	1.29	1.28	1.20	1.27	1.35
1	1.25	1.38	1.12	1.26	1.39	1.09	1.15	1.31	1.29	1.10
2	1.32	1.13	1.27	1.09	1.07	1.30	1.08	1.13	1.20	1.27
3	1.09	1.29	1.34	1.12	1.00	1.15	1.27	1.16	1.22	1.44
4	1.16	1.10	1.19	1.10	1.24	1.17	1.12	1.14	1.20	1.34
MIN										
ROW	.82	1.10	1.09	1.22	.83	.81	1.13	.91	1.12	.81
1	1.18	.99	.98	.94	.84	.79	.99	.86	.88	.92
2	1.01	.83	.88	1.04	.94	.86	.96	.75	.84	.91
3	.84	.90	1.18	.85	.78	.77	1.06	.96	1.13	1.11
4	.81	.86	.77	.92	.84	.81	.80	.78	.98	.81

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.12	.12	.91	1.39	56.22
MAX >	1.22	.10	1.00	1.44	60.78
MIN >	.92	.13	.75	1.22	46.19

V-TYPES FREQUENCY (PERCENT)

	V 7	V 8	V 9	V 10	V 11	V 12	V 13	V 14
RND >			18 %	26 %	22 %	24 %	10 %	
MAX >				12 %	32 %	34 %	20 %	2 %
MIN >	12 %	38 %	26 %	8 %	14 %	2 %		



FILE >> PH1383 DESCRIPTION FOLLOWS :
INT. >1525M-1530M, CABLEHEAD E-95, AMV, NOV-17-86

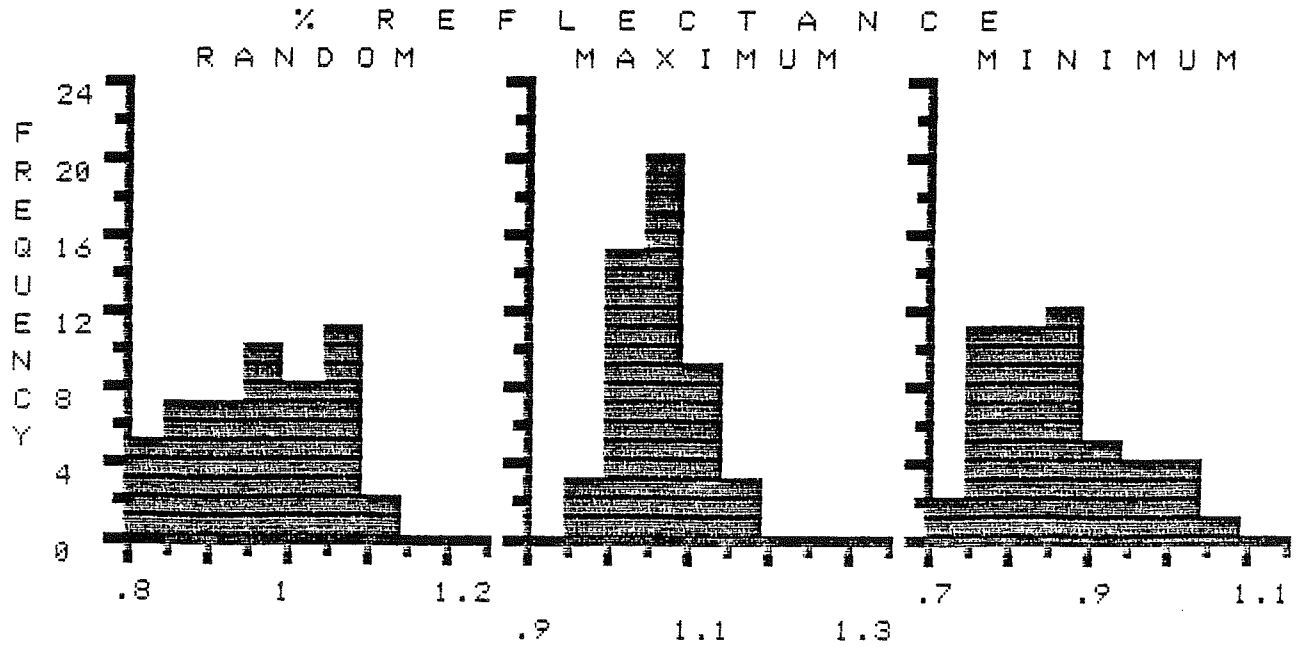
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	.99	1.06	1.03	.90	.91	.99	.82	.93	1.05	1.02
1	.81	.93	.80	.85	.85	.94	1.04	.83	.88	.85
2	1.06	.96	1.04	.97	1.05	1.09	.81	.96	1.08	.85
3	1.05	.85	.98	1.01	.88	1.03	1.09	.93	1.00	.97
4	.97	.95	.97	1.05	1.13	1.05	1.13	1.03	.92	1.08
MAX										
ROW	1.00	1.09	1.04	1.02	1.16	1.13	1.01	.95	1.06	1.02
1	1.06	1.05	1.08	1.09	1.11	1.10	1.06	1.12	1.06	1.01
2	1.18	1.02	1.07	.98	1.05	1.09	1.06	1.00	1.09	1.06
3	1.08	1.00	.98	1.04	1.04	1.04	1.09	1.05	1.13	1.00
4	1.10	1.01	1.03	1.10	1.17	1.08	1.14	1.08	1.07	1.10
MIN										
ROW	.76	.77	.85	.84	.78	.82	.80	.89	.80	.78
1	.75	.72	.79	.84	.85	.93	.89	.83	.80	.84
2	1.02	.76	.89	.89	.76	1.01	.78	.86	.90	.81
3	1.05	.82	.75	.99	.80	.87	.75	.91	.99	.96
4	.88	.93	.94	.88	.95	.70	.86	1.02	.88	1.00

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	.97	.09	.80	1.13	48.42
MAX >	1.06	.05	.95	1.18	53.15
MIN >	.86	.09	.70	1.05	42.94

V-TYPES FREQUENCY (PERCENT)

	V 7	V 8	V 9	V 10	V 11
RND >		24 %	34 %	38 %	4 %
MAX >			6 %	70 %	24 %
MIN >	26 %	46 %	18 %	10 %	



FILE >> PH1384 DESCRIPTION FOLLOWS :
INT. >1720M-1725M, CABLEHEAD E-95, AMV, NOV-17-86

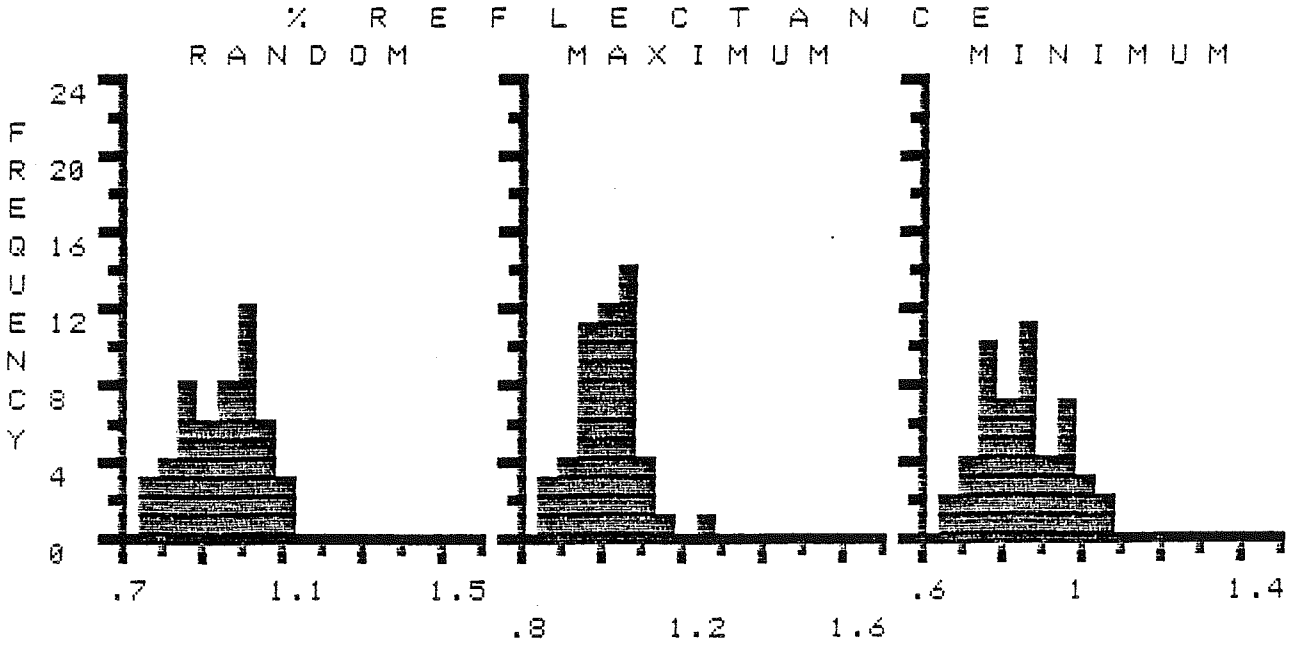
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	.96	.97	.97	1.01	1.03	.97	.88	.85	.87	.92
1	.76	.89	.79	.83	.76	.95	1.12	1.08	1.10	1.09
2	1.02	.88	1.03	.87	.91	.91	.87	.95	1.02	1.03
3	1.03	1.08	1.00	1.05	.81	.97	1.01	.83	.99	.92
4	.92	.83	1.06	1.09	.91	1.01	1.12	.88	1.03	1.00
MAX										
ROW	.97	.97	1.03	1.05	1.05	.99	.97	1.00	.88	.94
1	.89	.97	.93	1.01	.94	1.03	1.12	1.08	1.10	1.10
2	1.03	.93	1.08	.96	1.09	.97	1.18	.99	1.03	1.08
3	1.09	1.09	1.04	1.06	.85	1.07	1.04	.96	1.03	.95
4	1.09	1.02	1.08	1.25	1.08	1.03	1.14	.99	1.05	1.04
MIN										
ROW	.89	.89	.93	.99	.91	.87	.81	.83	.68	.78
1	.74	.86	.78	.82	.74	.93	.99	.97	1.00	1.08
2	.86	.69	.85	.86	.84	.77	.75	.93	.84	.99
3	.98	.77	.77	1.02	.80	.77	.95	.79	.98	.83
4	.88	.71	1.00	.88	.78	.76	1.09	.70	.88	.89

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	.96	.10	.76	1.12	47.83
MAX >	1.03	.08	.85	1.25	51.31
MIN >	.86	.10	.68	1.09	43.1

V-TYPES FREQUENCY (PERCENT)

	V 6	V 7	V 8	V 9	V 10	V 11	V 12
RND >		6 %	24 %	28 %	36 %	6 %	
MAX >			8 %	30 %	52 %	10 %	2 %
MIN >	4 %	28 %	36 %	22 %	10 %		



FILE >> PH1385 DESCRIPTION FOLLOWS :
INT. >1910M-1920M, CABLEHEAD E-95, AMV, NOV-18-86

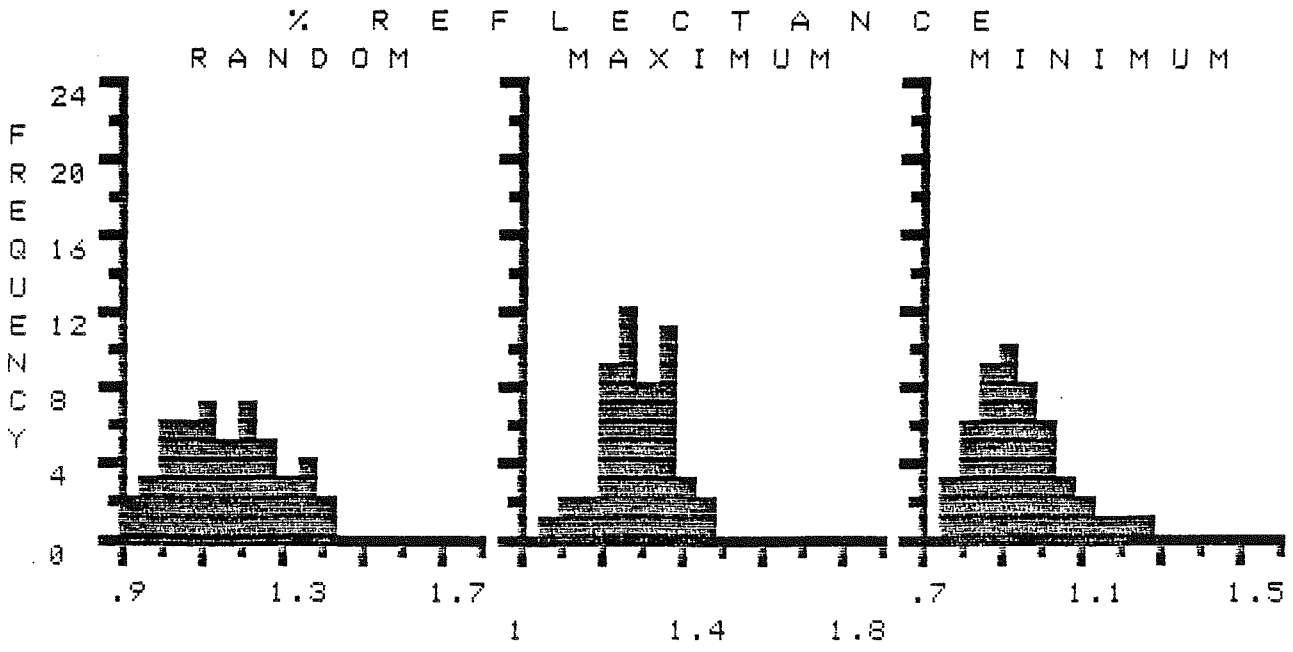
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.10	1.16	1.04	1.34	.91	1.36	1.39	1.15	1.14	1.43
1	.92	1.03	1.27	1.07	1.40	1.20	1.24	1.08	1.02	1.29
2	1.10	1.28	1.13	1.01	1.30	1.07	1.19	1.09	1.27	1.36
3	1.30	1.23	.97	1.17	1.07	1.14	1.04	1.36	1.04	1.27
4	1.10	1.08	1.17	.96	1.23	1.24	.99	1.21	1.22	1.10
MAX										
ROW	1.32	1.31	1.38	1.34	1.25	1.37	1.40	1.22	1.16	1.47
1	1.29	1.38	1.27	1.26	1.40	1.20	1.24	1.28	1.17	1.37
2	1.42	1.28	1.20	1.30	1.30	1.45	1.33	1.10	1.28	1.38
3	1.36	1.36	1.21	1.24	1.29	1.29	1.24	1.36	1.06	1.36
4	1.31	1.30	1.26	1.36	1.25	1.27	1.35	1.23	1.22	1.13
MIN										
ROW	.87	.84	1.02	1.00	.90	1.12	1.19	.93	.99	1.29
1	.88	.87	.93	.99	.90	.87	.85	.88	.83	.93
2	1.09	.82	1.13	1.00	.82	.98	1.01	.92	.79	.87
3	.97	1.08	.92	.97	.94	.81	.88	.92	.96	1.21
4	1.07	.89	.83	.76	.79	.92	.98	1.02	.95	1.04

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.16	.13	.91	1.43	58.23
MAX >	1.29	.09	1.06	1.47	64.57
MIN >	.95	.11	.76	1.29	47.42

V-TYPES FREQUENCY (PERCENT)

	V 7	V 8	V 9	V 10	V 11	V 12	V 13	V 14
RND >			10 %	24 %	24 %	24 %	14 %	4 %
MAX >				2 %	8 %	42 %	38 %	10 %
MIN >	6 %	30 %	36 %	18 %	6 %	4 %		



FILE >>. PH1386 DESCRIPTION FOLLOWS :
INT. >2070M-2080M. CABLEHEAD E-95. AMV. NOV-18-86

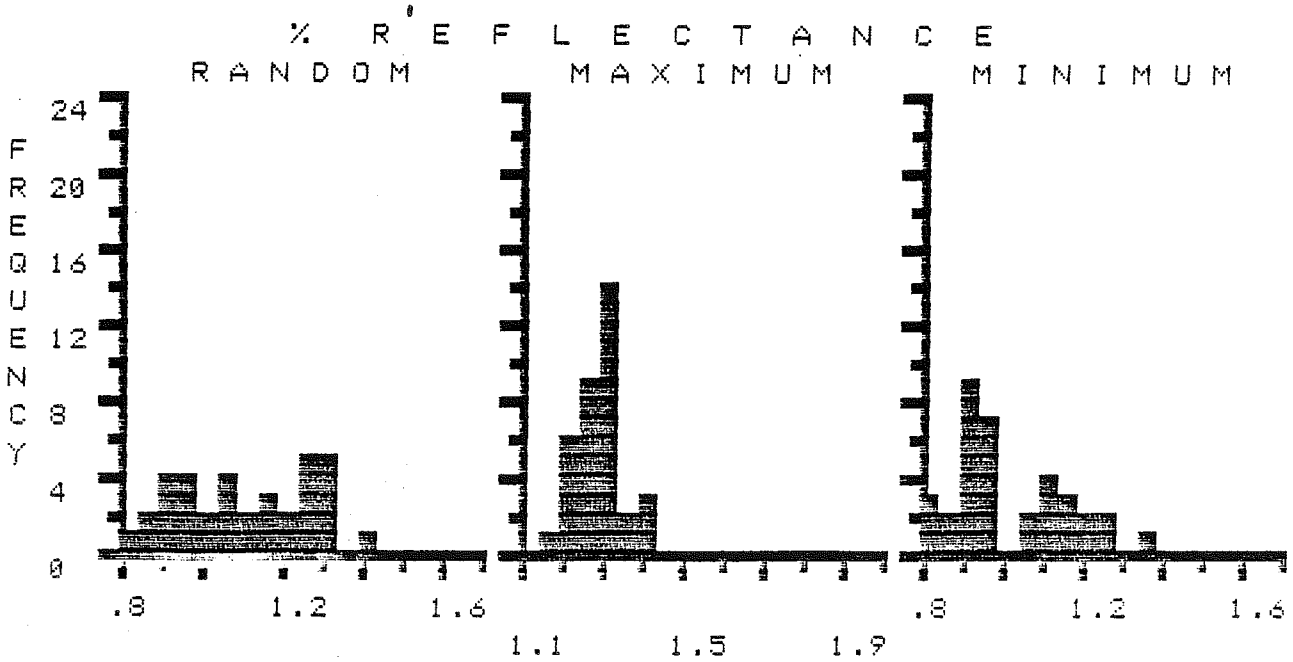
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.28	1.12	1.08	1.29	1.10	1.09	1.30	1.19	1.09	1.29
1	1.32	.90	1.40	.91	.85	.82	.94	.99	1.34	1.28
2	.96	.86	.96	1.26	1.31	1.06	.98	1.00	1.23	1.15
3	1.02	1.31	1.20	.93	1.18					
MAX										
ROW	1.28	1.34	1.24	1.31	1.29	1.32	1.33	1.36	1.34	1.29
1	1.32	1.30	1.44	1.25	1.15	1.21	1.27	1.25	1.34	1.36
2	1.29	1.31	1.41	1.26	1.31	1.33	1.20	1.20	1.34	1.28
3	1.21	1.34	1.43	1.33	1.20					
MIN										
ROW	.90	1.11	1.08	.95	1.10	1.08	.92	1.19	.90	1.21
1	1.25	.90	1.36	.90	.84	.81	.92	.84	1.24	1.14
2	.95	.86	.93	.87	.96	.96	.97	.97	.97	1.10
3	.93	1.27	1.18	.93	1.15					

STATISTICS BASED ON 35 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.11	.17	.82	1.40	38.99
MAX >	1.30	.07	1.15	1.44	45.43
MIN >	1.02	.14	.81	1.36	35.64

V-TYPES FREQUENCY (PERCENT)

	V 8	V 9	V 10	V 11	V 12	V 13	V 14
RND >	8 %	22 %	17 %	14 %	20 %	14 %	2 %
MAX >				2 %	42 %	45 %	8 %
MIN >	14 %	45 %	5 %	20 %	11 %	2 %	



FILE >> PH1387 DESCRIPTION FOLLOWS :
INT. >2165M-2170M. CABLEHEAD E-95, AMV, NOV-18-86

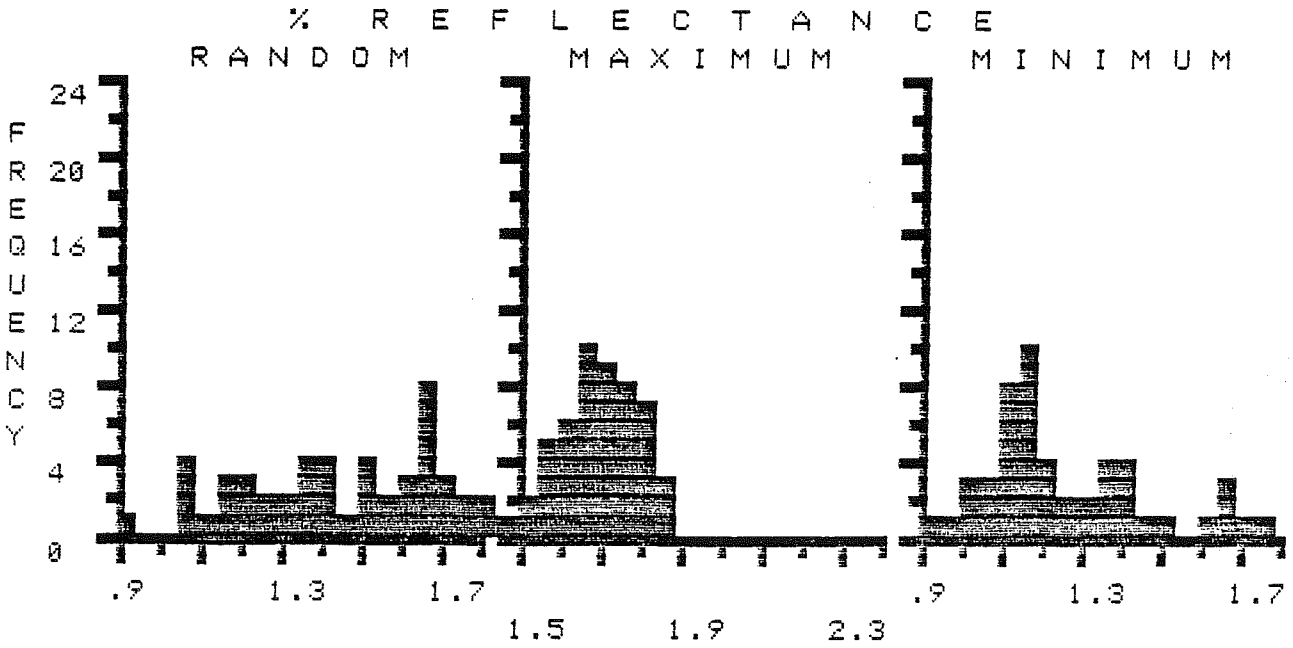
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.86	1.79	1.39	1.14	1.36	1.67	1.58	.93	1.81	1.30
1	1.28	1.41	1.44	1.68	1.24	1.67	1.21	1.05	1.35	1.51
2	1.60	1.63	1.80	1.53	1.18	1.16	1.38	1.53	1.05	1.08
3	1.43	1.63	1.58	1.74	1.74	1.46	1.29	1.31	1.16	1.22
4	1.65	1.41	1.66	1.52	1.77	1.68	1.05	1.69	1.74	1.69
MAX										
ROW	1.88	1.79	1.68	1.65	1.78	1.71	1.79	1.79	1.87	1.72
1	1.82	1.75	1.55	1.73	1.75	1.80	1.64	1.84	1.68	1.64
2	1.67	1.65	1.81	1.54	1.51	1.61	1.60	1.56	1.58	1.64
3	1.58	1.66	1.67	1.85	1.81	1.79	1.66	1.80	1.62	1.58
4	1.66	1.70	1.75	1.71	1.81	1.74	1.73	1.73	1.74	1.69
MIN										
ROW	1.75	1.68	1.38	1.11	1.35	1.19	1.15	.92	1.16	1.16
1	1.28	1.38	1.21	1.23	1.18	1.63	1.16	.96	1.32	1.11
2	1.16	1.22	1.71	1.42	1.13	1.16	1.12	1.35	1.01	1.07
3	1.26	1.23	1.07	1.65	1.13	1.19	1.05	1.10	1.13	1.15
4	1.33	1.41	1.02	1.10	1.53	1.65	1.03	1.47	1.43	1.43

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.46	.24	.93	1.86	73.03
MAX >	1.71	.09	1.51	1.88	85.31
MIN >	1.26	.21	.92	1.75	63.02

V-TYPES FREQUENCY (PERCENT)

	V 9	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17	V 18
RND >	2 %	8 %	8 %	10 %	12 %	10 %	12 %	22 %	10 %	6 %
MAX >							14 %	32 %	34 %	20 %
MIN >	4 %	12 %	36 %	12 %	12 %	10 %	2 %	8 %	4 %	



FILE >> PH1390 DESCRIPTION FOLLOWS :
INT. >2505M-2510M, CABLEHEAD E-95, AMV, NOV-19-86

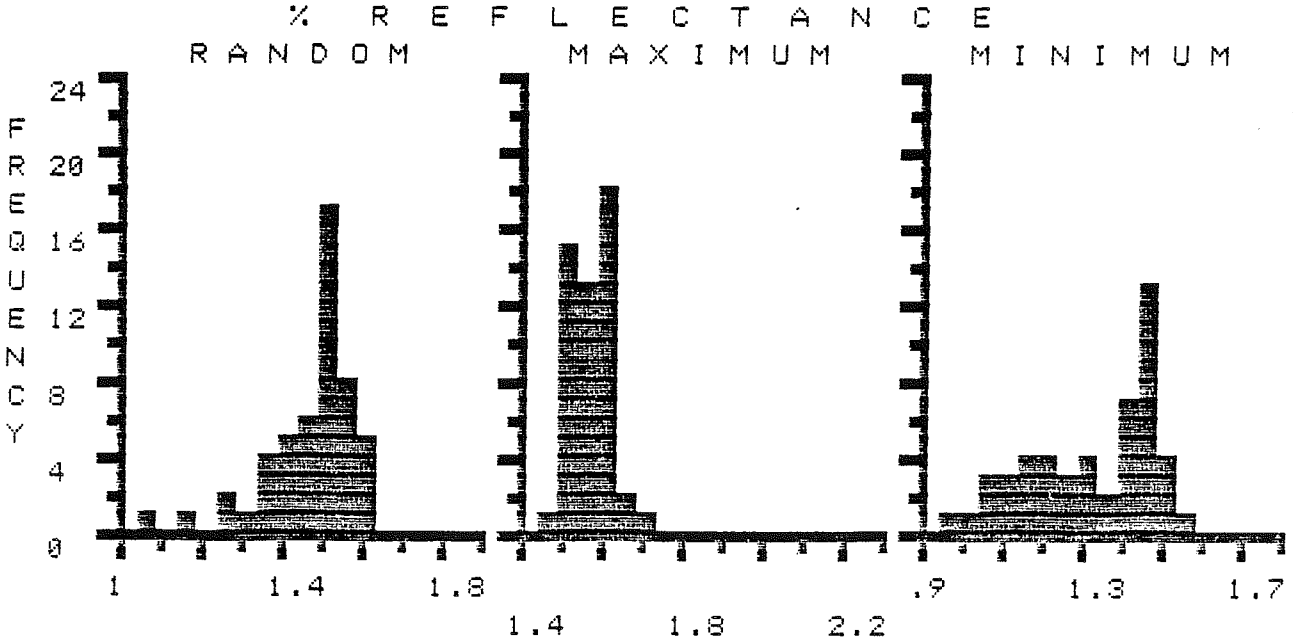
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.51	1.50	1.49	1.50	1.52	1.33	1.61	1.62	1.53	1.57
1	1.35	1.61	1.51	1.49	1.57	1.45	1.46	1.45	1.50	1.59
2	1.35	1.42	1.56	1.60	1.29	1.15	1.52	1.35	1.28	1.54
3	1.42	1.56	1.41	1.52	1.50	1.57	1.43	1.54	1.60	1.59
4	1.54	1.46	1.50	1.58	1.50	1.50	1.51	1.08	1.42	1.37
MAX										
ROW	1.54	1.60	1.57	1.54	1.54	1.54	1.61	1.62	1.53	1.57
1	1.52	1.63	1.68	1.65	1.58	1.48	1.57	1.54	1.62	1.62
2	1.61	1.60	1.71	1.60	1.60	1.51	1.56	1.59	1.61	1.59
3	1.50	1.60	1.51	1.52	1.61	1.57	1.53	1.59	1.60	1.59
4	1.63	1.56	1.51	1.60	1.50	1.62	1.55	1.56	1.52	1.62
MIN										
ROW	1.50	1.47	1.49	1.41	1.47	1.01	1.40	1.53	1.49	1.47
1	1.27	1.48	.99	1.45	1.47	1.41	1.17	1.22	1.14	1.22
2	1.13	1.32	1.33	1.52	1.18	1.06	1.46	1.09	1.15	1.32
3	1.23	1.40	1.27	1.45	1.16	1.23	1.40	1.51	1.55	1.37
4	1.47	1.44	1.36	1.46	1.14	1.28	1.48	1.06	1.40	1.31

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.48	.11	1.08	1.62	73.82
MAX >	1.58	.05	1.48	1.71	78.82
MIN >	1.33	.16	.99	1.55	66.59

V-TYPES FREQUENCY (PERCENT)

	V 9	V 10	V 11	V 12	V 13	V 14	V 15	V 16	V 17
RND >		2 %	2 %	4 %	10 %	22 %	50 %	10 %	
MAX >						2 %	56 %	40 %	2 %
MIN >	2 %	8 %	14 %	14 %	12 %	40 %	10 %		



FILE >> PH1392 DESCRIPTION FOLLOWS :
INT. >2720M-2725M, CABLEHEAD E-95, AMV, NOV-19-86

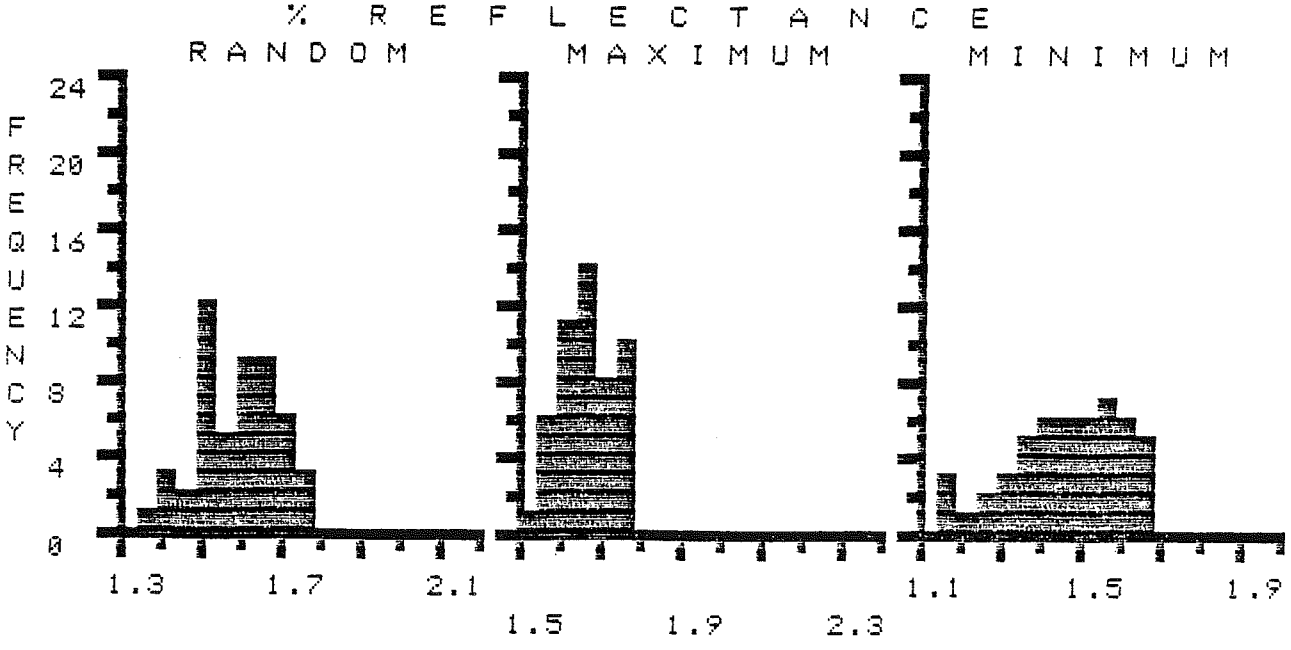
COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	1.50	1.74	1.41	1.62	1.52	1.51	1.64	1.61	1.74	1.64
1	1.67	1.43	1.67	1.59	1.76	1.64	1.48	1.76	1.49	1.42
2	1.59	1.54	1.75	1.63	1.52	1.59	1.54	1.73	1.60	1.60
3	1.67	1.51	1.68	1.53	1.50	1.60	1.56	1.50	1.65	1.56
4	1.66	1.70	1.37	1.54	1.70	1.53	1.70	1.66	1.69	1.67
MAX										
ROW	1.63	1.74	1.65	1.68	1.75	1.68	1.73	1.76	1.75	1.79
1	1.71	1.64	1.68	1.62	1.77	1.64	1.64	1.79	1.63	1.55
2	1.59	1.63	1.75	1.63	1.67	1.68	1.60	1.73	1.69	1.66
3	1.68	1.59	1.76	1.67	1.60	1.67	1.57	1.59	1.65	1.58
4	1.74	1.72	1.50	1.69	1.73	1.64	1.74	1.69	1.76	1.77
MIN										
ROW	1.46	1.57	1.41	1.46	1.47	1.44	1.57	1.53	1.51	1.60
1	1.61	1.42	1.57	1.31	1.59	1.52	1.39	1.68	1.46	1.28
2	1.52	1.50	1.67	1.58	1.40	1.56	1.18	1.67	1.37	1.45
3	1.61	1.15	1.62	1.36	1.30	1.58	1.22	1.19	1.40	1.31
4	1.63	1.40	1.29	1.37	1.62	1.51	1.48	1.36	1.68	1.65

STATISTICS BASED ON 50 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	1.60	.10	1.37	1.76	79.91
MAX >	1.68	.07	1.50	1.79	83.8
MIN >	1.47	.14	1.15	1.68	73.48

V-TYPES FREQUENCY (PERCENT)

	V 11	V 12	V 13	V 14	V 15	V 16	V 17
RND >			2 %	10 %	34 %	36 %	18 %
MAX >					14 %	50 %	36 %
MIN >	6 %	6 %	16 %	24 %	26 %	22 %	



FILE >> PH1380 DESCRIPTION FOLLOWS :
INT. >1080M-1090M, CABLEHEAD E-95, AMV. NOV-13-86

COL>	1	2	3	4	5	6	7	8	9	0
RND										
ROW	.71	1.19	.88	.83	.91	.82	.93	.85	.76	.96
1	.92	.98	.78	1.04	1.12	.83	.84	.96	.82	.91
2	.72	.82	.79	.81	.90	.84	.85	.78	.87	1.00
3	.86	.86	.92	.95	.87	.91	.84	1.01	.63	.94
MAX										
ROW	1.04	1.20	.93	.89	.95	.97	.97	.92	.82	.97
1	.94	1.03	.94	1.16	1.15	.99	.84	1.00	.97	.97
2	.83	.96	.90	.84	.99	.90	.93	1.05	.88	1.15
3	.94	.98	.92	1.07	.88	.91	.93	1.12	.80	1.10
MIN										
ROW	.69	.82	.85	.77	.81	.81	.79	.81	.72	.75
1	.82	.86	.72	.87	.71	.69	.79	.73	.82	.88
2	.66	.79	.76	.71	.78	.84	.84	.76	.76	.89
3	.74	.80	.61	.78	.68	.73	.72	.69	.61	.78

STATISTICS BASED ON 40 POINTS.

	MEAN	STAND.DEV.	MIN	MAX	SUM
RND >	.88	.11	.63	1.19	35.21
MAX >	.97	.10	.80	1.20	38.73
MIN >	.77	.07	.61	.89	30.64

V-TYPES FREQUENCY (PERCENT)

	V 6	V 7	V 8	V 9	V 10	V 11	V 12
RND >	2 %	15 %	40 %	30 %	7 %	5 %	
MAX >			20 %	52 %	12 %	12 %	2 %
MIN >	17 %	47 %	35 %