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# PRELIMINARY RESULTS OF 42 APATITE FISSION-TRACK ANALYSES OF ROCK SAMPLES FROM ARCTIC NATIONAL WILDLIFE REFUGE, NORTHEASTERN ALASKA

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CONTENTS


| | Page |
|---|---|
| Introduction | 1 |
| Location Map | 3 |
| (1) - Bathtub Ridge Section (18 samples) | 4 |
| (2) - Arctic Creek Section (7 samples) | 26 |
| (3) - Arctic Coastal Plain (8 samples) | 35 |
| (4) - Canning River Section (9 samples) | 43 |

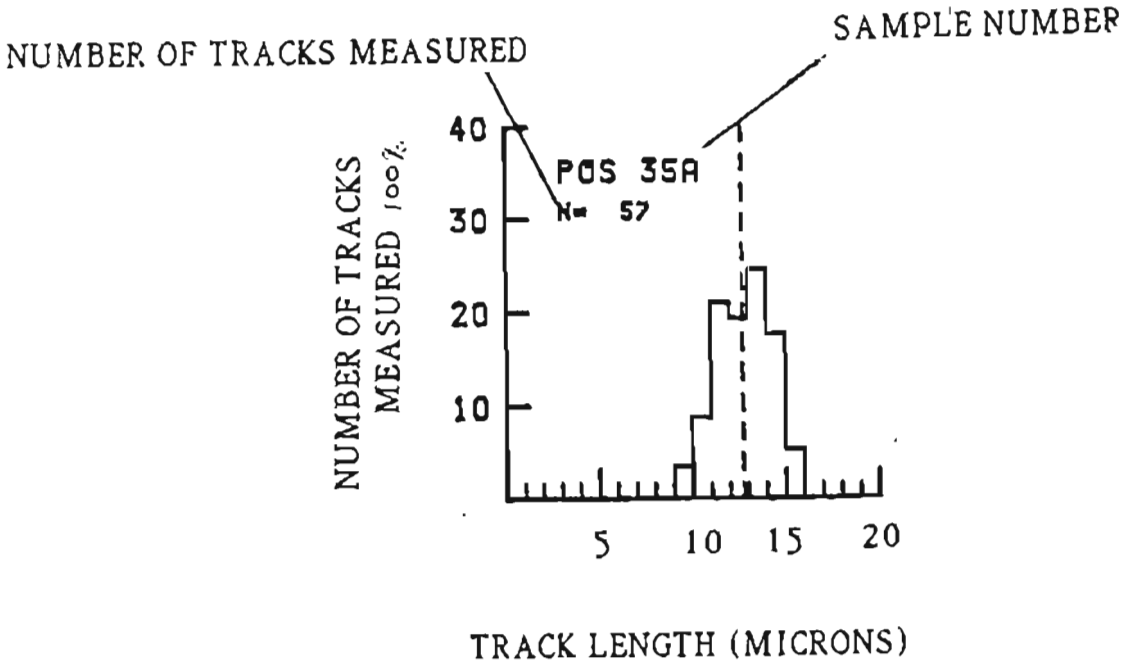
# Introduction

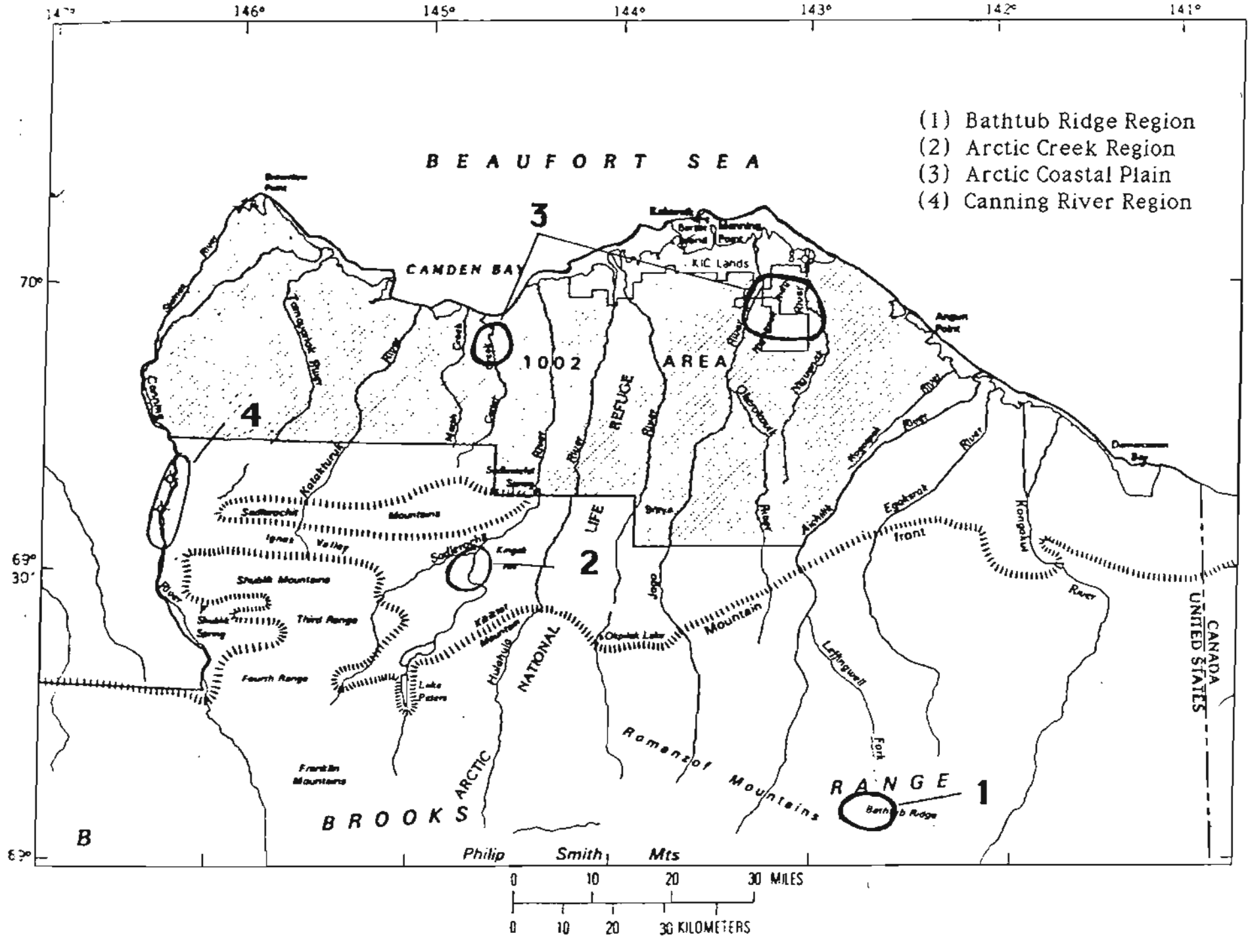
This is a preliminary report of apatite fission track analysis data of samples from the Arctic National Wildlife Refuge (ANWR). During the 1987 field season, sandstone, siltstone, conglomerate, and pebbly mudstone samples were collected from outcrops located at Bathtub Ridge, the Arctic Creek area, the Arctic Coastal Plain, and along the Canning River. Apatite grains were separated from the samples and analyzed in Melbourne Australia at the Melbourne University Fission Track Research Laboratory. All separations and analyses were completed by the author. This Project was funded by the U.S. Minerals Management Service Continental Margins Program.

Each analysis includes two parts: 1) age report; and 2) track length distributions. The age report shows a listing of the individual grain ages, the resulting age and pertinent information used in determining the age. A guide to read the information is as follows:

| | |
|---|---|
| POS 07A-KEMIK | -Sample number and unit collected |
| Irradiation: | -In-house number for grouping samples from the same irradiation package |
| Crystal | -Number of each grain counted |
| NS | -Number of spontaneous tracks counted |
| NI | -Number of induced tracks counted |
| Area Units | -Number of area units counted in grain |
| Ratio | -Ratio of (NS/NI) for each grain |
| RHO S | -Density of spontaneous tracks (per $cm^2$) |
| RHO I | -Density of induced tracks (per $cm^2$) |
| Age(MYR) | -Individual grain ages |
| Variance of SQR | -Statistical comparison of values of NS or NI for all grains |
| CHI Squared | -Statistical test for determining multiple grain populations:<br>Pass = single population<br>Fail = multiple populations |
| NS/NI | -Pooled ratio of (NS/NI). Uses total number of spontaneous and induced tracks counted for whole sample. Value used in age calculation if sample is of a single population |
| Mean Ratio | -Average ratio of (NS/NI) for grains |
| Pooled Age | -Age calculated using NS/NI(single population) |
| Mean Age | -Age calculated Using "Mean Ratio" (multiple populations) |

The track length distributions for each sample are histograms showing the relative numbers of tracks measured at a particular length and the total number of tracks measured for the sample.

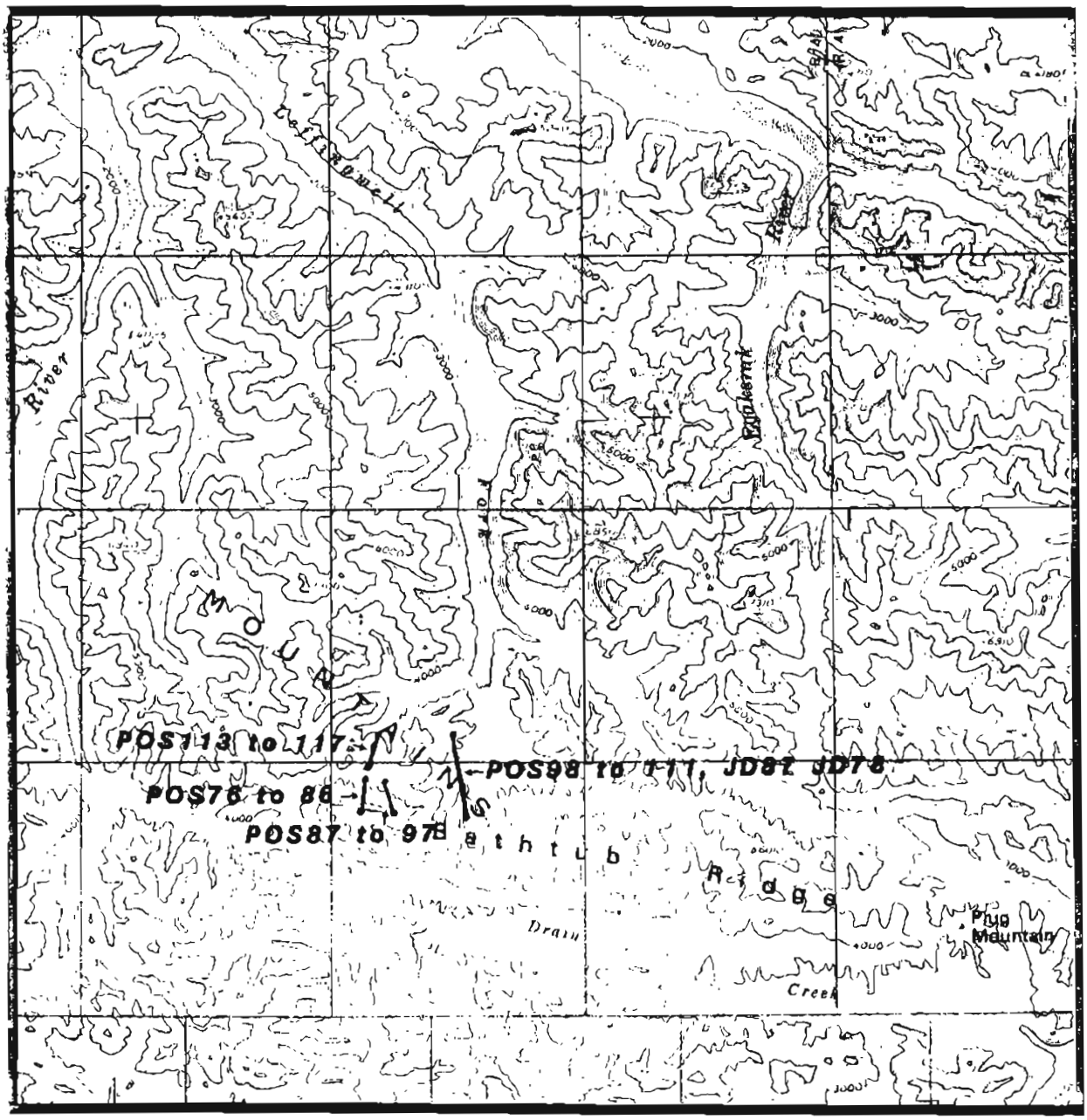





Location Map

# BATHTUB RIDGE SECTION

DEMARCATION POINT 1:250,000



# POS 24A - CAMP 58

IRRADIATION: PT931-11
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 4 | 12 | 0.250 | 8.28E+04 | 3.31E+05 | 60.6 +- 67.7 |
| 2 | 6 | 56 | 24 | 0.107 | 2.48E+05 | 2.32E+06 | 26.8 +- 11.2 |
| 3 | 4 | 16 | 8 | 0.250 | 4.97E+05 | 1.99E+06 | 60.6 +- 33.9 |
| 4 | 20 | 121 | 8 | 0.165 | 2.48E+06 | 1.50E+07 | 40.1 +- 9.7 |
| 5 | 6 | 16 | 6 | 0.375 | 9.93E+05 | 2.65E+06 | 90.7 +- 43.4 |
| 6 | 1 | 4 | 10 | 0.250 | 9.93E+04 | 3.97E+05 | 60.6 +- 67.7 |
| 7 | 3 | 6 | 4 | 0.500 | 7.45E+05 | 1.49E+06 | 120.6 +- 85.3 |
| 8 | 4 | 17 | 6 | 0.235 | 6.62E+05 | 2.81E+06 | 57.1 +- 31.7 |
| 9 | 6 | 27 | 8 | 0.222 | 7.45E+05 | 3.35E+06 | 53.9 +- 24.3 |
| 10 | 4 | 23 | 12 | 0.174 | 3.31E+05 | 1.90E+06 | 42.2 +- 22.9 |
| 11 | 6 | 24 | 7 | 0.250 | 8.51E+05 | 3.41E+06 | 60.6 +- 27.7 |
| 12 | 1 | 6 | 8 | 0.167 | 1.24E+05 | 7.45E+05 | 40.5 +- 43.7 |
| 13 | 3 | 9 | 4 | 0.333 | 7.45E+05 | 2.23E+06 | 80.7 +- 53.8 |
| 14 | 4 | 13 | 10 | 0.308 | 2.21E+05 | 7.17E+05 | 74.5 +- 42.6 |
| 15 | 2 | 8 | 8 | 0.250 | 2.48E+05 | 9.93E+05 | 60.6 +- 47.9 |
| 16 | 5 | 18 | 3 | 0.278 | 1.66E+06 | 5.96E+06 | 67.3 +- 34.8 |
| 17 | 17 | 59 | 9 | 0.288 | 1.88E+06 | 6.51E+06 | 69.8 +- 19.2 |
| 18 | 13 | 95 | 15 | 0.137 | 8.61E+05 | 6.29E+06 | 33.2 +- 9.8 |
| 19 | 2 | 15 | 8 | 0.133 | 2.48E+05 | 1.86E+06 | 32.4 +- 24.4 |
| 20 | 2 | 6 | 8 | 0.333 | 2.48E+05 | 7.45E+05 | 80.7 +- 65.9 |
| | 110 | 543 | | | 5.074E+05 | 2.900E+06 | |

AREA OF BASIC UNIT = 1.8068E-06 CM²

VARIANCE OF SQR(NS) = .9369
VARIANCE OF SQR(NI) = 6.39069 CORRELATION COEFFICIENT = 0.917

CHI SQUARED = 12.8013 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.283 +- 0.021 MEAN RATIO = 0.250 +- 0.021

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 49.1 +- 5.2 MYR

MEAN AGE = 60.7 +- 5.1 MYR

# POS 86A - BATHTUB GREYWACKE

IRRADIATION: PT916-09
ANALYSIS BY POS 5/7/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 11 | 67 | 32 | 0.164 | 3.41E+05 | 2.08E+06 | 39.7 +- 12.9 |
| 2 | 7 | 42 | 30 | 0.167 | 2.32E+05 | 1.39E+06 | 40.3 +- 16.5 |
| 3 | 16 | 72 | 32 | 0.222 | 4.97E+05 | 2.23E+06 | 53.7 +- 14.8 |
| 4 | 5 | 16 | 20 | 0.313 | 2.48E+05 | 7.95E+05 | 75.4 +- 38.6 |
| 5 | 14 | 50 | 24 | 0.280 | 5.79E+05 | 2.07E+06 | 67.6 +- 20.4 |
| 6 | 26 | 97 | 32 | 0.268 | 8.07E+05 | 3.01E+06 | 64.7 +- 14.3 |
| 7 | 11 | 33 | 25 | 0.333 | 4.37E+05 | 1.31E+06 | 80.4 +- 28.0 |
| 8 | 2 | 8 | 22 | 0.250 | 9.83E+04 | 3.61E+05 | 60.4 +- 47.7 |
| 9 | 9 | 31 | 24 | 0.290 | 3.72E+05 | 1.28E+06 | 70.1 +- 26.5 |
| 10 | 18 | 108 | 36 | 0.167 | 4.97E+05 | 2.98E+06 | 40.3 +- 10.3 |
| 11 | 8 | 37 | 25 | 0.216 | 3.18E+05 | 1.47E+06 | 52.3 +- 20.4 |
| 12 | 2 | 10 | 30 | 0.200 | 6.62E+04 | 3.31E+05 | 48.3 +- 37.5 |
| 13 | 3 | 6 | 32 | 0.500 | 9.31E+04 | 1.86E+05 | 120.2 +- 85.0 |
| 14 | 4 | 26 | 25 | 0.154 | 1.59E+05 | 1.03E+06 | 37.2 +- 20.0 |
| 15 | 11 | 43 | 36 | 0.256 | 3.03E+05 | 1.19E+06 | 61.8 +- 20.9 |
| 16 | 24 | 88 | 27 | 0.273 | 8.83E+05 | 3.24E+06 | 65.8 +- 15.2 |
| 17 | 27 | 126 | 25 | 0.214 | 1.07E+06 | 5.01E+06 | 51.8 +- 11.8 |
| 18 | 25 | 111 | 20 | 0.225 | 1.24E+06 | 5.51E+06 | 54.4 +- 12.0 |
| 19 | 2 | 5 | 24 | 0.400 | 8.28E+04 | 2.07E+05 | 96.3 +- 80.6 |
| 20 | 3 | 9 | 18 | 0.333 | 1.66E+05 | 4.97E+05 | 80.4 +- 53.6 |
| | 228 | 985 | | | 4.201E+05 | 1.815E+06 | |

AREA OF BASIC UNIT = 1.8068E-06 CM²

VARIANCE OF SQR(NS) = 1.70548
VARIANCE OF SQR(NI) = 8.50176 CORRELATION COEFFICIENT = 0.954

CHI SQUARED = 9.52736 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.231 +- 0.017 MEAN RATIO = 0.261 +- 0.019

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 55.9 +- 4.2 MYR

MEAN AGE = 63.1 +- 4.7 MYR

# POS 88A - SLST TURBIDITES

IRRADIATION: PT916-10
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 44 | 197 | 30 | 0.223 | 1.46E+06 | 6.52E+06 | 54.8 +- 9.0 |
| 2 | 0 | 4 | 6 | 0.000 | 0.00E+00 | 6.62E+05 | 0.0 +- 0.0 |
| 3 | 2 | 5 | 8 | 0.400 | 2.48E+05 | 6.21E+05 | 96.3 +- 88.6 |
| 4 | 1 | 8 | 8 | 0.125 | 1.24E+05 | 9.93E+05 | 30.3 +- 32.1 |
| 5 | 1 | 5 | 8 | 0.200 | 1.24E+05 | 6.21E+05 | 48.3 +- 53.0 |
| 6 | 4 | 17 | 18 | 0.235 | 3.97E+05 | 1.69E+06 | 56.8 +- 31.6 |
| 7 | 13 | 57 | 28 | 0.228 | 4.61E+05 | 2.02E+06 | 55.1 +- 16.9 |
| | 65 | 293 | | | 6.588E+05 | 2.970E+06 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = 4.9996
VARIANCE OF SQR(NI) = 19.6514 CORRELATION COEFFICIENT = 0.999

CHI SQUARED = 1.72892 WITH 6 DEGREES OF FREEDOM PASS

NS/NI = 0.222 +- 0.030 MEAN RATIO = 0.202 +- 0.046

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 53.6 +- 7.4 MYR

MEAN AGE = 48.8 +- 11.1 MYR

# POS 90A – KEMICK EQUIV.

IRRADIATION: PT931-12
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 14 | 32 | 8 | 0.438 | 1.74E+06 | 3.97E+06 | 105.7 +- 33.9 |
| 2 | 4 | 12 | 4 | 0.333 | 9.93E+05 | 2.98E+06 | 80.7 +- 46.6 |
| 3 | 2 | 11 | 9 | 0.182 | 2.21E+05 | 1.21E+06 | 44.1 +- 33.9 |
| 4 | 2 | 7 | 10 | 0.286 | 1.99E+05 | 6.95E+05 | 69.2 +- 55.5 |
| 5 | 5 | 22 | 8 | 0.227 | 6.21E+05 | 2.73E+06 | 55.1 +- 27.3 |
| 6 | 2 | 6 | 8 | 0.333 | 2.48E+05 | 7.45E+05 | 80.7 +- 65.9 |
| 7 | 10 | 46 | 8 | 0.217 | 1.24E+06 | 5.71E+06 | 52.7 +- 18.4 |
| 8 | 4 | 25 | 12 | 0.160 | 3.31E+05 | 2.07E+06 | 38.9 +- 20.9 |
| 9 | 6 | 29 | 12 | 0.207 | 4.97E+05 | 2.40E+06 | 50.2 +- 22.5 |
| 10 | 3 | 13 | 8 | 0.231 | 3.72E+05 | 1.61E+06 | 56.8 +- 35.8 |
| 11 | 3 | 14 | 10 | 0.214 | 2.98E+05 | 1.39E+06 | 52.0 +- 33.1 |
| 12 | 2 | 5 | 10 | 0.400 | 1.99E+05 | 4.97E+05 | 96.7 +- 80.9 |
| 13 | 3 | 10 | 12 | 0.300 | 2.48E+05 | 8.28E+05 | 72.7 +- 47.8 |
| 14 | 3 | 11 | 16 | 0.273 | 1.86E+05 | 6.83E+05 | 66.1 +- 43.0 |
| 15 | 8 | 29 | 9 | 0.276 | 8.83E+05 | 3.20E+06 | 66.8 +- 26.7 |
| 16 | 1 | 8 | 10 | 0.125 | 5.52E+04 | 4.41E+05 | 30.4 +- 32.2 |
| 17 | 5 | 19 | 9 | 0.263 | 5.52E+05 | 2.18E+06 | 63.8 +- 32.1 |
| 18 | 6 | 21 | 15 | 0.286 | 3.97E+05 | 1.39E+06 | 69.2 +- 32.8 |
| 19 | 4 | 17 | 9 | 0.235 | 4.41E+05 | 1.88E+06 | 57.1 +- 31.7 |
| 20 | 2 | 9 | 6 | 0.222 | 3.31E+05 | 1.49E+06 | 53.9 +- 42.1 |
| | 29 | 346 | | | 4.398E+05 | 1.718E+06 | |

AREA OF BASIC UNIT = 1.0069E-06 CM²

VARIANCE OF SQR(NS) = .452024
VARIANCE OF SQR(NI) = 1.48146 CORRELATION COEFFICIENT = 0.859

CHI SQUARED = 5.74935 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.257 +- 0.031 MEAN RATIO = 0.260 +- 0.017

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.391E+06 ND = 5480

POOLED AGE = 62.3 +- 7.5 MYR

MEAN AGE = 63.1 +- 4.3 MYR

# POS 96A - SLST UNIT

IRRADIATION: PT931-08
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 7 | 20 | 0.143 | 4.97E+04 | 3.48E+05 | 34.7 +- 37.1 |
| 2 | 2 | 3 | 5 | 0.667 | 3.97E+05 | 5.96E+05 | 160.3 +- 146.4 |
| 3 | 4 | 11 | 15 | 0.364 | 2.65E+05 | 7.28E+05 | 66.8 +- 51.4 |
| 4 | 1 | 4 | 10 | 0.250 | 9.93E+04 | 3.97E+05 | 68.6 +- 67.7 |
| 5 | 0 | 4 | 10 | 0.000 | 0.00E+00 | 3.97E+05 | 0.0 +- 0.0 |
| 6 | 5 | 21 | 15 | 0.238 | 3.31E+05 | 1.39E+06 | 57.7 +- 28.7 |
| 7 | 2 | 8 | 40 | 0.250 | 4.97E+04 | 1.99E+05 | 68.6 +- 47.9 |
| 8 | 7 | 21 | 15 | 0.333 | 4.35E+05 | 1.30E+06 | 80.7 +- 35.2 |
| 9 | 11 | 32 | 21 | 0.344 | 5.20E+05 | 1.51E+06 | 85.2 +- 29.1 |
| 10 | 3 | 16 | 13 | 0.188 | 1.66E+05 | 8.33E+05 | 45.5 +- 28.6 |
| 11 | 1 | 5 | 15 | 0.200 | 6.62E+04 | 3.31E+05 | 48.5 +- 53.2 |
| 12 | 10 | 16 | 10 | 0.625 | 9.93E+05 | 1.59E+06 | 150.4 +- 68.6 |
| 13 | 3 | 11 | 30 | 0.273 | 5.93E+04 | 3.64E+05 | 66.1 +- 43.0 |
| 14 | 17 | 86 | 21 | 0.198 | 8.04E+05 | 4.07E+06 | 48.8 +- 12.7 |
| 15 | 1 | 4 | 15 | 0.250 | 6.62E+04 | 2.65E+05 | 60.6 +- 67.7 |
| 16 | 0 | 2 | 10 | 0.000 | 0.00E+00 | 1.99E+05 | 0.0 +- 0.0 |
| 17 | 2 | 9 | 15 | 0.222 | 1.32E+05 | 5.96E+05 | 53.9 +- 42.1 |
| 18 | 16 | 62 | 30 | 0.258 | 7.95E+05 | 3.08E+06 | 62.5 +- 17.5 |
| 19 | 1 | 7 | 8 | 0.143 | 1.24E+05 | 8.69E+05 | 34.7 +- 37.1 |
| 20 | 2 | 6 | 40 | 0.333 | 4.97E+04 | 1.49E+05 | 88.7 +- 85.9 |
| | 97 | 335 | | | 2.49E+05 | 9.39E+05 | |

AREA OF BASIC UNIT = 1.3868E-06 CM2

VARIANCE OF SQR(NS) = 1.34816
VARIANCE OF SQR(NI) = 4.15772 CORRELATION COEFFICIENT = 0.919

CHI SQUARED = 11.1033 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.266 +- 0.032 MEAN RATIO = 0.264 +- 0.036

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM962 GLASS
RHO D = 1.331E+06 ND = 5480

POOLED AGE = 64.4 +- 7.7 M.R

MEAN AGE = 63.9 +- 8.9 M.R

# POS 97A - BATHTUB GREYWACKE

IRRADIATION: PT931-03
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 10 | 30 | 16 | 0.333 | 7.31E+05 | 2.19E+06 | 80.7 +- 29.5 |
| 2 | 3 | 18 | 24 | 0.167 | 1.46E+05 | 8.77E+05 | 40.5 +- 25.2 |
| 3 | 2 | 6 | 12 | 0.333 | 1.95E+05 | 5.85E+05 | 80.7 +- 65.9 |
| 4 | 7 | 27 | 12 | 0.259 | 6.82E+05 | 2.63E+06 | 62.8 +- 26.7 |
| 5 | 3 | 6 | 20 | 0.500 | 1.75E+05 | 3.51E+05 | 120.6 +- 85.3 |
| 6 | 14 | 56 | 12 | 0.250 | 1.36E+06 | 5.46E+06 | 60.6 +- 18.1 |
| 7 | 5 | 26 | 12 | 0.192 | 4.87E+05 | 2.53E+06 | 46.7 +- 22.8 |
| 8 | 2 | 5 | 12 | 0.400 | 1.95E+05 | 4.87E+05 | 96.7 +- 80.9 |
| 9 | 2 | 6 | 16 | 0.333 | 1.46E+05 | 4.39E+05 | 80.7 +- 65.9 |
| 10 | 6 | 17 | 30 | 0.353 | 2.34E+05 | 6.63E+05 | 85.4 +- 40.5 |
| 11 | 3 | 6 | 30 | 0.500 | 1.17E+05 | 2.34E+05 | 120.6 +- 85.3 |
| 12 | 9 | 42 | 30 | 0.214 | 3.51E+05 | 1.64E+06 | 52.0 +- 19.1 |
| 13 | 2 | 5 | 20 | 0.400 | 1.17E+05 | 2.92E+05 | 96.7 +- 80.9 |
| 14 | 4 | 11 | 30 | 0.364 | 1.56E+05 | 4.29E+05 | 88.0 +- 51.4 |
| 15 | 3 | 8 | 12 | 0.375 | 2.92E+05 | 7.80E+05 | 90.7 +- 61.4 |
| 16 | 14 | 47 | 20 | 0.298 | 8.19E+05 | 2.75E+06 | 72.1 +- 22.8 |
| 17 | 1 | 6 | 16 | 0.167 | 7.31E+04 | 4.39E+05 | 40.5 +- 43.7 |
| 18 | 7 | 16 | 20 | 0.438 | 4.09E+05 | 9.36E+05 | 105.7 +- 47.9 |
| 19 | 12 | 39 | 18 | 0.308 | 7.80E+05 | 2.53E+06 | 74.5 +- 24.6 |
| 20 | 0 | 4 | 15 | 0.000 | 0.00E+00 | 3.12E+05 | 0.0 +- 0.0 |
| | 189 | 381 | | | 3.382E+05 | 1.182E+06 | |

AREA OF BASIC UNIT = 8.548E-07 CM²

VARIANCE OF SQR(NS) = .945042
VARIANCE OF SQR(NI) = 3.1821 CORRELATION COEFFICIENT = 0.948

CHI SQUARED = 7.05549 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.286 +- 0.031 MEAN RATIO = 0.309 +- 0.027

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 69.3 +- 7.6 MYR

MEAN AGE = 74.9 +- 9.7 MYR

# POS 98A — BLACK ECHOOKA FM.

IRRADIATION: PT916-11
ANALYSIS BY POS 5/15/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 3 | 24 | 0.000 | 0.00E+00 | 1.46E+05 | 0.0 +- 0.0 |
| 2 | 0 | 0 | 16 | 0.000 | 0.00E+00 | 5.85E+05 | 0.0 +- 0.0 |
| 3 | 2 | 5 | 15 | 0.400 | 1.56E+05 | 3.90E+05 | 96.3 +- 80.6 |
| 4 | 0 | 3 | 9 | 0.000 | 0.00E+00 | 3.90E+05 | 0.0 +- 0.0 |
| 5 | 1 | 3 | 9 | 0.333 | 1.30E+05 | 3.90E+05 | 80.4 +- 92.8 |
| 6 | 3 | 16 | 10 | 0.188 | 3.51E+05 | 1.87E+06 | 45.3 +- 28.5 |
| 7 | 1 | 2 | 20 | 0.500 | 5.85E+04 | 1.17E+05 | 120.2 +- 147.2 |
| 8 | 0 | 3 | 12 | 0.000 | 0.00E+00 | 2.92E+05 | 0.0 +- 0.0 |
| 9 | 6 | 15 | 21 | 0.400 | 3.34E+05 | 8.36E+05 | 96.3 +- 46.5 |
| 10 | 0 | 1 | 9 | 0.000 | 0.00E+00 | 1.30E+05 | 0.0 +- 0.0 |
| 11 | 2 | 5 | 12 | 0.400 | 1.95E+05 | 4.87E+05 | 96.3 +- 80.6 |
| 12 | 5 | 10 | 24 | 0.500 | 2.44E+05 | 4.87E+05 | 120.2 +- 65.8 |
| 13 | 2 | 4 | 9 | 0.500 | 2.60E+05 | 5.20E+05 | 120.2 +- 104.1 |
| 14 | 0 | 8 | 9 | 0.000 | 0.00E+00 | 1.04E+06 | 0.0 +- 0.0 |
| 15 | 2 | 6 | 16 | 0.333 | 1.46E+05 | 4.39E+05 | 80.4 +- 65.6 |
| 16 | 1 | 3 | 8 | 0.333 | 1.46E+05 | 4.39E+05 | 80.4 +- 92.8 |
| 17 | 0 | 5 | 20 | 0.000 | 0.00E+00 | 2.92E+05 | 0.0 +- 0.0 |
| | 25 | 100 | | | 1.284E+05 | 4.814E+05 | |

AREA OF BASIC UNIT = 3.548E-07 CM²

VARIANCE OF SQR(NS) = .727061
VARIANCE OF SQR(NI) = .679781 CORRELATION COEFFICIENT = 0.713

CHI SQUARED = 12.4843 WITH 16 DEGREES OF FREEDOM PASS

NS/NI = 0.250 +- 0.056 MEAN RATIO = 0.229 +- 0.051

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 60.4 +- 13.5 MYR

MEAN AGE = 55.3 +- 12.4 MYR

# POS 99A - WHITE ECHOOKA FM.

IRRADIATION: PT931-13
ANALYSIS BY POS 5/15/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 5 | 21 | 5 | 0.238 | 1.17E+06 | 4.91E+06 | 57.7 +- 28.7 |
| 2 | 2 | 20 | 20 | 0.100 | 1.17E+05 | 1.17E+06 | 24.3 +- 19.8 |
| 3 | 1 | 4 | 2 | 0.250 | 5.85E+05 | 2.34E+06 | 60.6 +- 67.7 |
| 4 | 0 | 3 | 2 | 0.000 | 0.00E+00 | 1.75E+06 | 0.0 +- 0.0 |
| 5 | 0 | 3 | 4 | 0.000 | 0.00E+00 | 8.77E+05 | 0.0 +- 0.0 |
| 6 | 7 | 18 | 15 | 0.389 | 7.32E+05 | 1.88E+06 | 120.6 +- 49.2 |
| 7 | 1 | 9 | 9 | 0.111 | 1.30E+05 | 1.17E+06 | 27.0 +- 28.5 |
| 8 | 0 | 5 | 6 | 0.000 | 0.00E+00 | 9.75E+05 | 0.0 +- 0.0 |
| 9 | 2 | 3 | 18 | 0.667 | 1.30E+05 | 1.95E+05 | 168.3 +- 146.4 |
| 10 | 3 | 8 | 16 | 0.375 | 2.19E+05 | 5.85E+05 | 98.7 +- 81.4 |
| 11 | 1 | 2 | 5 | 0.500 | 2.34E+05 | 4.68E+05 | 120.6 +- 147.7 |
| 12 | 1 | 4 | 6 | 0.250 | 1.95E+05 | 7.80E+05 | 60.6 +- 67.7 |
| 13 | 1 | 6 | 6 | 0.167 | 1.95E+05 | 1.17E+06 | 40.5 +- 43.7 |
| 14 | 3 | 4 | 18 | 0.750 | 3.51E+05 | 4.68E+05 | 180.1 +- 137.6 |
| 15 | 6 | 20 | 25 | 0.300 | 2.81E+05 | 9.36E+05 | 72.7 +- 33.8 |
| 16 | 2 | 10 | 9 | 0.200 | 2.60E+05 | 1.30E+06 | 48.5 +- 37.6 |
| 17 | 2 | 5 | 16 | 0.400 | 1.46E+05 | 3.66E+05 | 96.7 +- 88.9 |
| 18 | 0 | 4 | 6 | 0.000 | 0.00E+00 | 7.80E+05 | 0.0 +- 0.0 |
| 19 | 4 | 12 | 9 | 0.333 | 5.20E+05 | 1.56E+06 | 80.7 +- 46.6 |
| 20 | 2 | 19 | 10 | 0.105 | 2.34E+05 | 2.22E+06 | 25.6 +- 19.8 |
| | 45 | 180 | | | 2.645E+05 | 1.358E+06 | |

AREA OF BASIC UNIT = 8.548E-07 CM2

VARIANCE OF SQR(NS) = .694513
VARIANCE OF SQR(NI) = 1.18707 CORRELATION COEFFICIENT = 0.693

CHI SQUARED = 15.6456 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.250 +- 0.042 MEAN RATIO = 0.262 +- 0.049

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.331E+06 ND = 5480

POOLED AGE = 50.6 +- 10.1 MYR

MEAN AGE = 53.6 +- 11.9 MYR

# POS 102A - BATHTUB GREYWACKE

IRRADIATION: PT930-05
ANALYSIS BY POS 5/15/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 5 | 7 | 0.000 | 0.00E+00 | 8.10E+05 | 0.0 +- 0.0 |
| 2 | 12 | 47 | 6 | 0.255 | 2.27E+06 | 8.88E+06 | 65.8 +- 21.8 |
| 3 | 4 | 3 | 10 | 1.333 | 4.54E+05 | 3.40E+05 | 332.2 +- 253.7 |
| 4 | 8 | 56 | 25 | 0.143 | 3.63E+05 | 2.54E+06 | 36.4 +- 13.3 |
| 5 | 7 | 31 | 20 | 0.226 | 3.97E+05 | 1.76E+06 | 57.5 +- 24.1 |
| 6 | 1 | 4 | 6 | 0.250 | 1.89E+05 | 7.56E+05 | 53.6 +- 71.1 |
| 7 | 17 | 86 | 9 | 0.198 | 2.14E+06 | 1.08E+07 | 50.3 +- 13.4 |
| 8 | 5 | 26 | 21 | 0.192 | 2.70E+05 | 1.40E+06 | 49.8 +- 23.9 |
| 9 | 2 | 4 | 8 | 0.500 | 2.83E+05 | 5.67E+05 | 126.6 +- 109.6 |
| 10 | 3 | 4 | 18 | 0.750 | 1.89E+05 | 2.52E+05 | 189.0 +- 144.3 |
| 11 | 2 | 2 | 16 | 1.000 | 2.27E+05 | 2.27E+05 | 250.8 +- 250.8 |
| 12 | 2 | 3 | 24 | 0.667 | 9.45E+04 | 1.42E+05 | 168.3 +- 153.6 |
| 13 | 1 | 3 | 6 | 0.333 | 1.89E+05 | 5.67E+05 | 84.7 +- 97.8 |
| 14 | 21 | 86 | 36 | 0.244 | 6.61E+05 | 2.71E+06 | 62.1 +- 15.1 |
| 15 | 1 | 3 | 24 | 0.333 | 4.72E+04 | 1.42E+05 | 84.7 +- 97.8 |
| 16 | 0 | 3 | 6 | 0.000 | 0.00E+00 | 5.67E+05 | 0.0 +- 0.0 |
| 17 | 2 | 2 | 6 | 1.000 | 3.78E+05 | 3.78E+05 | 250.8 +- 250.8 |
| 18 | 5 | 8 | 12 | 0.625 | 4.72E+05 | 7.56E+05 | 157.9 +- 90.8 |
| 19 | 4 | 12 | 9 | 0.333 | 5.04E+05 | 1.51E+06 | 84.7 +- 48.9 |
| 20 | 8 | 31 | 18 | 0.258 | 5.04E+05 | 1.95E+06 | 65.7 +- 26.8 |
| | 185 | 419 | | | 4.237E+05 | 1.591E+06 | |

AREA OF BASIC UNIT = 8.819E-07 CM²

VARIANCE OF SQR(NS) = 1.45495
VARIANCE OF SQR(NI) = 7.19546 CORRELATION COEFFICIENT = 0.955

CHI SQUARED = 23.2545 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.251 +- 0.027 MEAN RATIO = 0.432 +- 0.080

AGE CALCULATED USING A ZETA OF 352.7 FOR ERM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 93.8 +- 7.0 MYR

MEAN AGE = 109.5 +- 20.3 MYR

# POS 1038 - BATHTUB GREYWACKE

IRRADIATION: PT930-03
ANALYSIS BY POS 5/9/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 28 | 15 | 0.214 | 4.68E+05 | 2.18E+06 | 54.6 +- 24.5 |
| 2 | 9 | 43 | 12 | 0.209 | 3.77E+05 | 4.19E+06 | 53.3 +- 19.5 |
| 3 | 5 | 16 | 15 | 0.313 | 3.90E+05 | 1.25E+06 | 79.4 +- 40.7 |
| 4 | 2 | 8 | 12 | 0.250 | 1.75E+05 | 7.00E+05 | 63.6 +- 50.3 |
| 5 | 5 | 14 | 20 | 0.357 | 2.92E+05 | 8.19E+05 | 90.7 +- 47.2 |
| 6 | 14 | 35 | 30 | 0.400 | 5.46E+05 | 1.36E+06 | 101.5 +- 32.1 |
| 7 | 6 | 28 | 16 | 0.214 | 4.39E+05 | 2.05E+06 | 54.6 +- 24.5 |
| 8 | 5 | 18 | 9 | 0.500 | 6.50E+05 | 1.30E+06 | 126.6 +- 69.3 |
| 9 | 1 | 6 | 9 | 0.167 | 1.30E+05 | 7.80E+05 | 42.5 +- 45.9 |
| 10 | 3 | 13 | 15 | 0.231 | 2.34E+05 | 1.01E+06 | 58.7 +- 37.6 |
| 11 | 7 | 26 | 36 | 0.269 | 2.27E+05 | 8.45E+05 | 68.5 +- 29.2 |
| 12 | 13 | 41 | 18 | 0.317 | 1.52E+06 | 4.80E+06 | 80.6 +- 25.6 |
| 13 | 5 | 16 | 18 | 0.313 | 3.25E+05 | 1.04E+06 | 79.4 +- 40.7 |
| 14 | 5 | 18 | 9 | 0.278 | 6.50E+05 | 2.34E+06 | 70.6 +- 35.7 |
| 15 | 20 | 69 | 15 | 0.290 | 1.56E+06 | 5.38E+06 | 73.7 +- 18.7 |
| 16 | 2 | 8 | 15 | 0.250 | 1.30E+05 | 5.20E+05 | 63.6 +- 50.3 |
| 17 | 3 | 12 | 42 | 0.250 | 8.36E+04 | 3.34E+05 | 63.6 +- 41.1 |
| 18 | 8 | 18 | 9 | 0.444 | 1.04E+06 | 2.34E+06 | 112.7 +- 47.9 |
| 19 | 5 | 13 | 30 | 0.385 | 1.95E+05 | 5.07E+05 | 97.6 +- 51.4 |
| 20 | 0 | 4 | 24 | 0.000 | 0.00E+00 | 1.95E+05 | 0.0 +- 0.0 |
| | 124 | 426 | | | 4.81E+05 | 1.38E+06 | |

AREA OF BASIC UNIT = 8.548E-07 CM²

VARIANCE OF SQR(NS) = .981729
VARIANCE OF SQR(NI) = 2.48611 CORRELATION COEFFICIENT = 0.935

CHI SQUARED = 7.0665 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.291 +- 0.030 MEAN RATIO = 0.283 +- 0.024

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 74.9 +- 7.6 MYR

MEAN AGE = 71.3 +- 6.2 MYR

# POS 104B — BATHTUB GREYWACKE

IRRADIATION: PT930-08
ANALYSIS BY POS 5/15/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 12 | 12 | 0.083 | 9.45E+04 | 1.13E+06 | 21.3 +- 22.1 |
| 2 | 3 | 13 | 30 | 0.231 | 1.13E+05 | 4.91E+05 | 58.7 +- 37.6 |
| 3 | 6 | 15 | 18 | 0.400 | 3.78E+05 | 9.45E+05 | 101.5 +- 49.8 |
| 4 | 6 | 12 | 15 | 0.500 | 4.54E+05 | 9.07E+05 | 126.6 +- 63.3 |
| 5 | 6 | 12 | 25 | 0.500 | 2.72E+05 | 5.44E+05 | 126.6 +- 63.3 |
| 6 | 2 | 10 | 12 | 0.200 | 1.89E+05 | 9.45E+05 | 50.9 +- 39.5 |
| 7 | 1 | 8 | 12 | 0.125 | 9.45E+04 | 7.56E+05 | 31.9 +- 33.8 |
| 8 | 0 | 3 | 8 | 0.000 | 0.00E+00 | 4.25E+05 | 0.0 +- 0.0 |
| 9 | 0 | 9 | 20 | 0.000 | 0.00E+00 | 5.10E+05 | 0.0 +- 0.0 |
| 10 | 4 | 7 | 30 | 0.571 | 2.27E+05 | 3.97E+05 | 144.5 +- 90.6 |
| 11 | 3 | 9 | 20 | 0.333 | 1.70E+05 | 5.10E+05 | 84.7 +- 56.5 |
| 12 | 2 | 9 | 15 | 0.222 | 1.51E+05 | 6.80E+05 | 56.5 +- 44.2 |
| 13 | 1 | 8 | 18 | 0.125 | 6.30E+04 | 5.04E+05 | 31.9 +- 33.8 |
| 14 | 2 | 6 | 10 | 0.333 | 2.27E+05 | 6.80E+05 | 84.7 +- 69.1 |
| 15 | 1 | 10 | 16 | 0.100 | 7.09E+04 | 7.09E+05 | 25.5 +- 26.8 |
| 16 | 0 | 0 | 15 | 0.000 | 0.00E+00 | 5.85E+05 | 0.0 +- 0.0 |
| 17 | 11 | 36 | 20 | 0.306 | 6.24E+05 | 2.04E+06 | 77.7 +- 26.8 |
| 18 | 14 | 55 | 15 | 0.255 | 1.06E+06 | 4.16E+06 | 64.8 +- 19.4 |
| 19 | 15 | 62 | 18 | 0.242 | 9.45E+05 | 3.91E+06 | 61.6 +- 17.7 |
| 20 | 0 | 0 | 15 | 0.000 | 0.00E+00 | 5.85E+05 | 0.0 +- 0.0 |
| | 78 | 312 | | | 2.648E+05 | 1.059E+06 | |

AREA OF BASIC UNIT = 8.819E-07 CM²

VARIANCE OF SQR(NS) = 1.4128
VARIANCE OF SQR(NI) = 2.54046 CORRELATION COEFFICIENT = 0.920

CHI SQUARED = 17.5343 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.250 +- 0.032 MEAN RATIO = 0.236 +- 0.039

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 53.6 +- 8.1 MYR

MEAN AGE = 57.6 +- 10.1 MYR

# POS 106A - BATHTUB GREYWACKE

IRRADIATION: PT930-06
ANALYSIS BY POS 5/16/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 31 | 18 | 0.194 | 3.31E+05 | 1.71E+06 | 49.3 +- 22.8 |
| 2 | 3 | 9 | 15 | 0.333 | 1.99E+05 | 5.96E+05 | 84.7 +- 56.5 |
| 3 | 12 | 42 | 12 | 0.286 | 9.93E+05 | 3.48E+06 | 72.7 +- 23.8 |
| 4 | 3 | 16 | 12 | 0.188 | 2.48E+05 | 1.32E+06 | 47.8 +- 30.1 |
| 5 | 12 | 61 | 12 | 0.197 | 9.93E+05 | 5.05E+06 | 50.1 +- 15.8 |
| 6 | 5 | 21 | 9 | 0.238 | 5.52E+05 | 2.32E+06 | 60.6 +- 30.2 |
| 7 | 14 | 49 | 9 | 0.286 | 1.55E+06 | 5.41E+06 | 72.7 +- 22.8 |
| 8 | 20 | 75 | 8 | 0.267 | 2.48E+06 | 9.31E+06 | 67.8 +- 17.1 |
| 9 | 0 | 2 | 9 | 0.000 | 0.00E+00 | 2.21E+05 | 0.0 +- 0.0 |
| 10 | 15 | 41 | 9 | 0.366 | 1.66E+06 | 4.52E+06 | 92.9 +- 28.8 |
| 11 | 6 | 30 | 15 | 0.200 | 3.97E+05 | 1.99E+06 | 50.9 +- 22.8 |
| 12 | 1 | 5 | 6 | 0.200 | 1.66E+05 | 8.28E+05 | 50.9 +- 55.8 |
| 13 | 0 | 4 | 8 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 14 | 4 | 14 | 12 | 0.286 | 3.31E+05 | 1.16E+06 | 72.7 +- 41.2 |
| 15 | 2 | 9 | 18 | 0.222 | 1.10E+05 | 4.97E+05 | 56.6 +- 44.2 |
| 16 | 0 | 4 | 20 | 0.000 | 0.00E+00 | 1.99E+05 | 0.0 +- 0.0 |
| 17 | 2 | 6 | 12 | 0.333 | 1.66E+05 | 4.97E+05 | 84.7 +- 69.1 |
| 18 | 5 | 20 | 20 | 0.250 | 2.48E+05 | 9.93E+05 | 63.6 +- 31.8 |
| 19 | 0 | 2 | 9 | 0.000 | 0.00E+00 | 2.21E+05 | 0.0 +- 0.0 |
| 20 | 3 | 8 | 9 | 0.375 | 3.31E+05 | 8.83E+05 | 95.2 +- 64.4 |
| | 113 | 449 | | | 4.638E+05 | 1.843E+06 | |

AREA OF BASIC UNIT = 1.8068E-06 CM²

VARIANCE OF SQR(NS) = 1.86
VARIANCE OF SQR(NI) = 4.82447 CORRELATION COEFFICIENT = 0.961

CHI SQUARED = 7.18188 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.252 +- 0.026 MEAN RATIO = 0.311 +- 0.027

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 54.0 +- 6.8 MYR

MEAN AGE = 53.7 +- 7.0 MYR

# POS 111A - CAMP SS.

IRRADIATION: PT931-07
ANALYSIS BY POS 5/16/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 6 | 18 | 10 | 0.333 | 5.96E+05 | 1.79E+06 | 80.7 +- 38.8 |
| 2 | 2 | 8 | 8 | 0.250 | 2.48E+05 | 9.93E+05 | 68.5 +- 47.9 |
| 3 | 6 | 15 | 10 | 0.400 | 3.31E+05 | 8.28E+05 | 96.7 +- 46.7 |
| 4 | 4 | 12 | 8 | 0.333 | 4.97E+05 | 1.49E+06 | 80.7 +- 46.6 |
| 5 | 3 | 7 | 4 | 0.429 | 7.45E+05 | 1.74E+06 | 183.5 +- 71.4 |
| 6 | 8 | 34 | 9 | 0.235 | 8.83E+05 | 3.75E+06 | 57.1 +- 22.4 |
| 7 | 3 | 16 | 9 | 0.188 | 3.31E+05 | 1.77E+06 | 45.5 +- 28.6 |
| 8 | 3 | 27 | 9 | 0.111 | 3.31E+05 | 2.98E+06 | 27.8 +- 16.4 |
| 9 | 7 | 31 | 6 | 0.226 | 1.16E+06 | 5.13E+06 | 54.8 +- 22.9 |
| 10 | 6 | 12 | 12 | 0.500 | 4.97E+05 | 9.93E+05 | 120.6 +- 68.3 |
| 11 | 4 | 14 | 6 | 0.286 | 6.62E+05 | 2.32E+06 | 69.2 +- 39.2 |
| 12 | 5 | 24 | 15 | 0.208 | 3.31E+05 | 1.59E+06 | 50.5 +- 24.8 |
| 13 | 2 | 10 | 4 | 0.200 | 4.97E+05 | 2.48E+06 | 48.5 +- 37.6 |
| 14 | 3 | 12 | 4 | 0.250 | 7.45E+05 | 2.98E+06 | 60.6 +- 39.1 |
| 15 | 1 | 6 | 6 | 0.167 | 1.66E+05 | 9.93E+05 | 40.5 +- 43.7 |
| 16 | 3 | 8 | 6 | 0.375 | 4.97E+05 | 1.32E+06 | 90.7 +- 61.4 |
| 17 | 3 | 13 | 9 | 0.231 | 3.31E+05 | 1.43E+06 | 56.0 +- 35.6 |
| 18 | 3 | 15 | 9 | 0.200 | 3.31E+05 | 1.66E+06 | 48.5 +- 30.7 |
| 19 | 1 | 5 | 6 | 0.200 | 1.66E+05 | 8.28E+05 | 48.5 +- 53.2 |
| 20 | 2 | 15 | 9 | 0.133 | 2.21E+05 | 1.66E+06 | 32.4 +- 24.4 |
| | 75 | 382 | | | 4.361E+05 | 1.796E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .261357
VARIANCE OF SQR(NI) = .995079 CORRELATION COEFFICIENT = 0.727

CHI SQUARED = 8.09865 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.248 +- 0.032 MEAN RATIO = 0.263 +- 0.033

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5490

POOLED AGE = 60.2 +- 7.8 MYR

MEAN AGE = 63.7 +- 5.6 MYR

# POS 113A - BLACK ECHOOKA FM.

IRRADIATION: PT930-13
ANALYSIS BY POS 5/16/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 4 | 8 | 24 | 0.588 | 1.66E+05 | 3.31E+05 | 126.6 +- 77.5 |
| 2 | 6 | 46 | 12 | 0.130 | 4.97E+05 | 3.81E+06 | 33.3 +- 14.4 |
| 3 | 7 | 37 | 6 | 0.189 | 1.16E+06 | 6.13E+06 | 48.2 +- 19.9 |
| 4 | 4 | 18 | 12 | 0.222 | 3.31E+05 | 1.49E+06 | 56.6 +- 31.3 |
| 5 | 4 | 16 | 6 | 0.250 | 6.62E+05 | 2.65E+06 | 63.6 +- 35.6 |
| 6 | 4 | 9 | 6 | 0.444 | 6.62E+05 | 1.49E+06 | 112.7 +- 67.7 |
| 7 | 13 | 53 | 21 | 0.245 | 6.15E+05 | 2.51E+06 | 62.4 +- 19.3 |
| 8 | 3 | 7 | 9 | 0.429 | 3.31E+05 | 7.73E+05 | 108.7 +- 75.8 |
| 9 | 2 | 10 | 12 | 0.200 | 1.66E+05 | 8.28E+05 | 50.9 +- 39.5 |
| | 47 | 204 | | | 4.322E+05 | 1.876E+06 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = .404088
VARIANCE OF SQR(NI) = 3.29077 CORRELATION COEFFICIENT = 0.365

CHI SQUARED = 5.85106 WITH 8 DEGREES OF FREEDOM PASS

NS/NI = 0.230 +- 0.037 MEAN RATIO = 0.290 +- 0.044

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 58.6 +- 9.5 MYR

MEAN AGE = 73.7 +- 11.2 MYR

# POS 115A - LEDGE SS.

IRRADIATION: PT930-11
ANALYSIS BY POS 5/16/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 5 | 8 | 0.200 | 1.24E+05 | 6.21E+05 | 50.9 +- 55.8 |
| 2 | 3 | 9 | 4 | 0.333 | 7.45E+05 | 2.23E+06 | 84.7 +- 56.5 |
| 3 | 3 | 8 | 6 | 0.375 | 4.97E+05 | 1.32E+06 | 95.2 +- 64.4 |
| 4 | 1 | 2 | 3 | 0.500 | 3.31E+05 | 6.62E+05 | 126.6 +- 155.1 |
| 5 | 0 | 3 | 4 | 0.000 | 0.00E+00 | 7.45E+05 | 0.0 +- 0.0 |
| 6 | 0 | 4 | 4 | 0.000 | 0.00E+00 | 9.93E+05 | 0.0 +- 0.0 |
| 7 | 0 | 2 | 6 | 0.000 | 0.00E+00 | 3.31E+05 | 0.0 +- 0.0 |
| 8 | 5 | 17 | 6 | 0.294 | 8.28E+05 | 2.81E+06 | 74.0 +- 38.0 |
| 9 | 4 | 19 | 9 | 0.211 | 4.41E+05 | 2.10E+06 | 53.6 +- 29.5 |
| 10 | 2 | 9 | 6 | 0.222 | 3.31E+05 | 1.49E+06 | 56.6 +- 44.2 |
| 11 | 0 | 3 | 8 | 0.000 | 0.00E+00 | 3.72E+05 | 0.0 +- 0.0 |
| 12 | 3 | 10 | 9 | 0.300 | 3.31E+05 | 1.10E+06 | 76.3 +- 50.2 |
| | 22 | 91 | | | 2.993E+05 | 1.238E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .749766
VARIANCE OF SQR(NI) = .991811 CORRELATION COEFFICIENT = 0.919

CHI SQUARED = 4.2922 WITH 11 DEGREES OF FREEDOM PASS

NS/NI = 0.242 +- 0.057 MEAN RATIO = 0.203 +- 0.049

AGE CALCULATED USING ζ ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 61.5 +- 14.6 MYR

MEAN AGE = 51.7 +- 12.5 MYR

# POS 117A — THIN BEDDED SS.

IRRADIATION: PT930-02
ANALYSIS BY POS 5/17/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 3 | 10 | 9 | 0.300 | 3.31E+05 | 1.10E+06 | 76.3 +- 50.2 |
| 2 | 2 | 7 | 4 | 0.286 | 4.97E+05 | 1.74E+06 | 72.7 +- 58.2 |
| 3 | 1 | 5 | 6 | 0.200 | 1.66E+05 | 8.28E+05 | 50.9 +- 55.8 |
| 4 | 3 | 6 | 4 | 0.500 | 7.45E+05 | 1.49E+06 | 126.6 +- 89.5 |
| 5 | 2 | 7 | 9 | 0.286 | 2.21E+05 | 7.73E+05 | 72.7 +- 58.2 |
| 6 | 6 | 26 | 6 | 0.231 | 9.93E+05 | 4.30E+06 | 58.7 +- 26.6 |
| 7 | 1 | 4 | 4 | 0.250 | 2.48E+05 | 9.93E+05 | 63.6 +- 71.1 |
| 8 | 1 | 3 | 5 | 0.333 | 1.99E+05 | 5.96E+05 | 84.7 +- 97.8 |
| 9 | 1 | 5 | 4 | 0.200 | 2.48E+05 | 1.24E+06 | 50.9 +- 55.8 |
| 10 | 1 | 5 | 4 | 0.200 | 2.48E+05 | 1.24E+06 | 50.9 +- 55.8 |
| 11 | 5 | 18 | 6 | 0.500 | 8.28E+05 | 1.66E+06 | 126.6 +- 69.3 |
| 12 | 1 | 2 | 9 | 0.500 | 1.10E+05 | 2.21E+05 | 126.6 +- 155.1 |
| 13 | 4 | 11 | 3 | 0.364 | 1.32E+06 | 3.64E+06 | 92.3 +- 53.9 |
| 14 | 0 | 11 | 9 | 0.000 | 0.00E+00 | 1.21E+06 | 0.0 +- 0.0 |
| 15 | 4 | 18 | 8 | 0.400 | 4.97E+05 | 1.24E+06 | 101.5 +- 68.0 |
| 16 | 2 | 8 | 8 | 0.250 | 2.48E+05 | 9.93E+05 | 63.6 +- 50.3 |
| | 37 | 138 | | | 3.750E+05 | 1.310E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .377437
VARIANCE OF SQR(NI) = .730373 CORRELATION COEFFICIENT = 0.742

CHI SQUARED = 6.19307 WITH 15 DEGREES OF FREEDOM PASS

NS/NI = 0.285 +- 0.053 MEAN RATIO = 0.300 +- 0.033

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 72.4 +- 13.5 M.Y.

MEAN AGE = 75.2 +- 8.5 M.Y.

# JD 78A - BATHTUB GREYWACKE

IRRADIATION: PT917-05
ANALYSIS BY POS 5/17/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 5 | 18 | 9 | 0.278 | 5.52E+05 | 1.99E+06 | 65.7 +- 33.2 |
| 2 | 18 | 46 | 9 | 0.217 | 1.18E+06 | 5.38E+06 | 51.5 +- 18.8 |
| 3 | 8 | 36 | 25 | 0.222 | 3.18E+05 | 1.43E+06 | 52.7 +- 20.6 |
| 4 | 3 | 9 | 20 | 0.333 | 1.49E+05 | 4.47E+05 | 78.8 +- 52.5 |
| 5 | 7 | 38 | 7 | 0.184 | 9.93E+05 | 5.39E+06 | 43.7 +- 18.8 |
| 6 | 2 | 7 | 6 | 0.286 | 3.31E+05 | 1.16E+06 | 67.6 +- 54.2 |
| 7 | 6 | 18 | 18 | 0.333 | 5.96E+05 | 1.79E+06 | 78.8 +- 37.2 |
| 8 | 2 | 3 | 12 | 0.667 | 1.66E+05 | 2.48E+05 | 156.7 +- 143.8 |
| | 43 | 175 | | | 4.358E+05 | 1.774E+06 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = .432437
VARIANCE OF SQR(NI) = 3.36207 CORRELATION COEFFICIENT = 0.966

CHI SQUARED = 2.7087 WITH 7 DEGREES OF FREEDOM PASS

NS/NI = 0.246 +- 0.042 MEAN RATIO = 0.315 +- 0.054

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.349E+06 ND = 5354

POOLED AGE = 58.2 +- 9.9 MYR

MEAN AGE = 74.5 +- 12.8 MYR

# JD 87A - LEDGE SS.

IRRADIATION: PT917-06
ANALYSIS BY POS 5/17/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 4 | 12 | 0.250 | 8.28E+04 | 3.31E+05 | 59.2 +- 66.2 |
| 2 | 2 | 7 | 28 | 0.286 | 9.93E+04 | 3.48E+05 | 67.6 +- 54.2 |
| 3 | 3 | 6 | 25 | 0.500 | 1.19E+05 | 2.38E+05 | 117.9 +- 83.3 |
| 4 | 1 | 5 | 16 | 0.200 | 6.21E+04 | 3.10E+05 | 47.4 +- 51.9 |
| 5 | 2 | 7 | 12 | 0.286 | 1.66E+05 | 5.79E+05 | 67.6 +- 54.2 |
| 6 | 5 | 17 | 16 | 0.294 | 3.10E+05 | 1.06E+06 | 69.6 +- 35.4 |
| 7 | 3 | 20 | 16 | 0.150 | 1.86E+05 | 1.24E+06 | 35.6 +- 22.0 |
| | 17 | 66 | | | 1.443E+05 | 5.683E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .194016
VARIANCE OF SQR(NI) = .923343 CORRELATION COEFFICIENT = 0.746

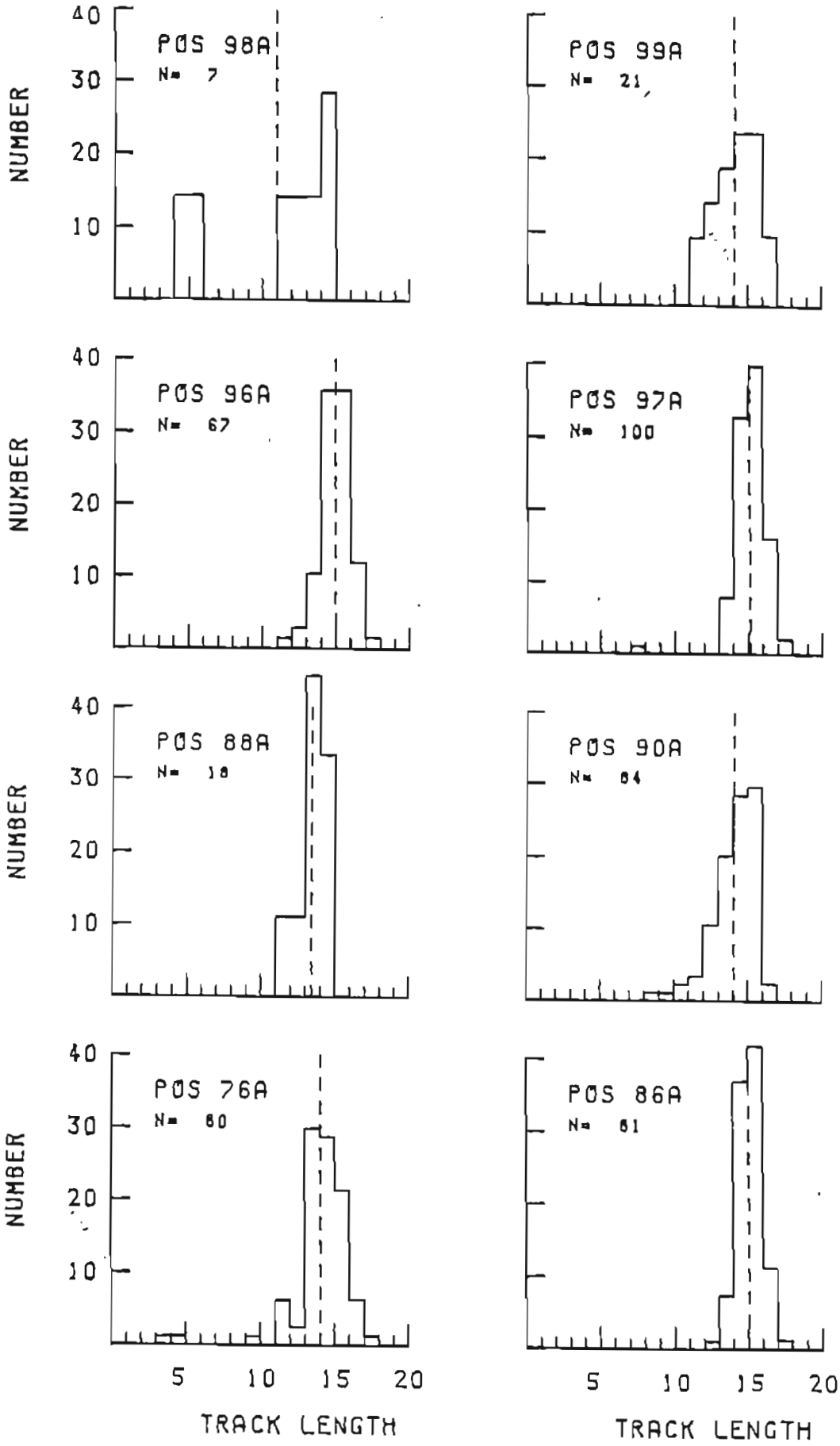
CHI SQUARED = 1.84994 WITH 6 DEGREES OF FREEDOM PASS

NS/NI = 0.258 +- 0.070 MEAN RATIO = 0.281 +- 0.042

AGE CALCULATED USING A ZETA OF 352.7 FOR SPM612 GLASS
RHO D = 1.349E+06 ND = 5354

POOLED AGE = 61.0 +- 16.6 MYR

MEAN AGE = 66.5 +- 9.9 MYR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POS 99A
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POS 96A
N= 67
POS 97A
N= 100
POS 88A
N= 18
POS 90A
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POS 76A
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POS 86A
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NUMBER
TRACK LENGTH
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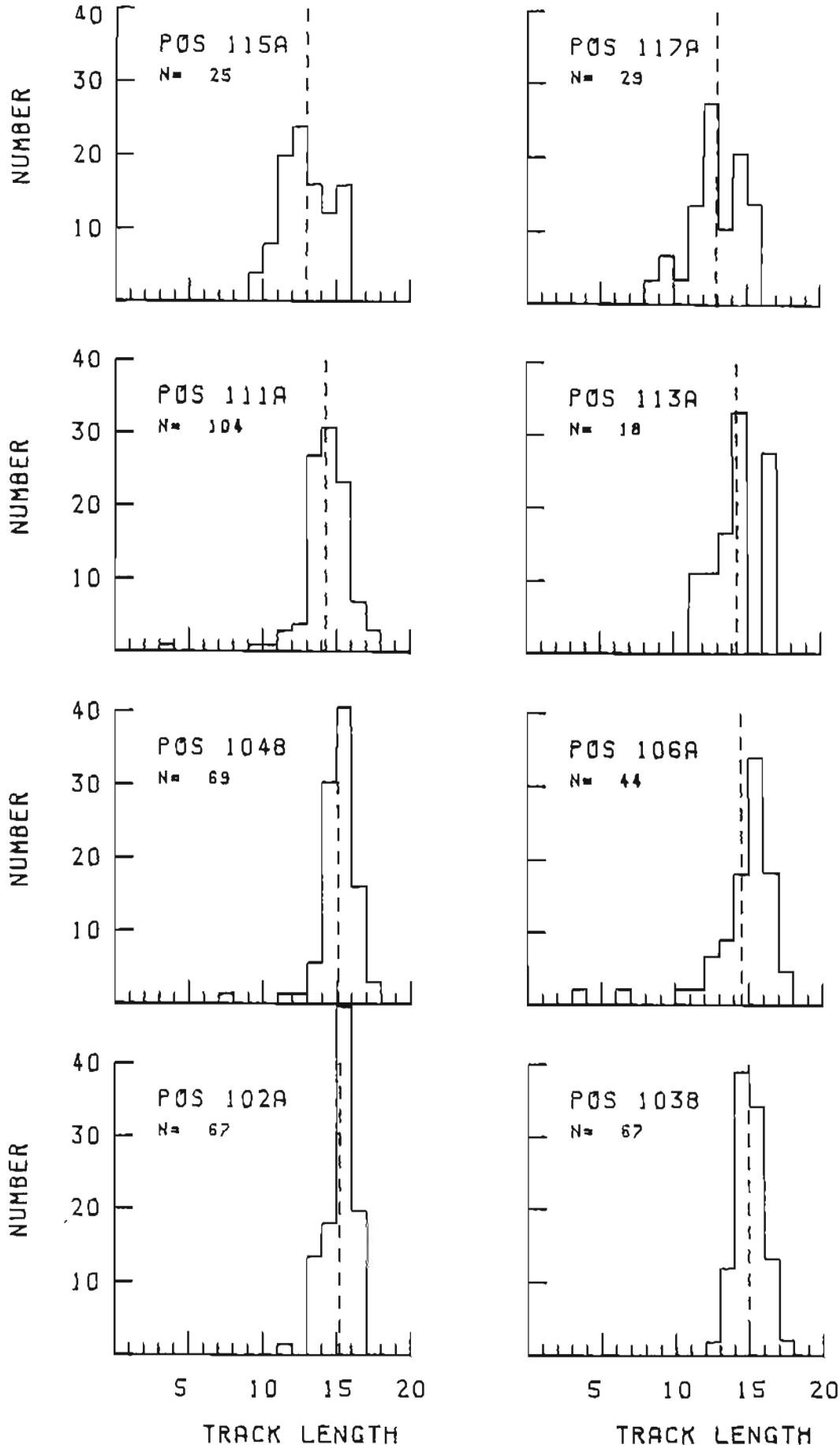
20
30
40
5
15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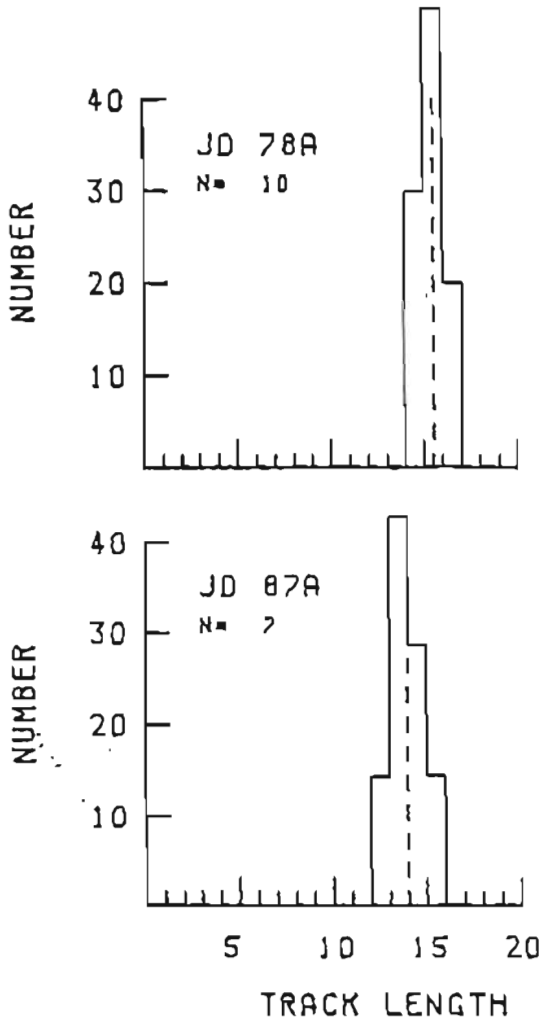
20
TRACK LENGTH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NUMBER
JD 87A
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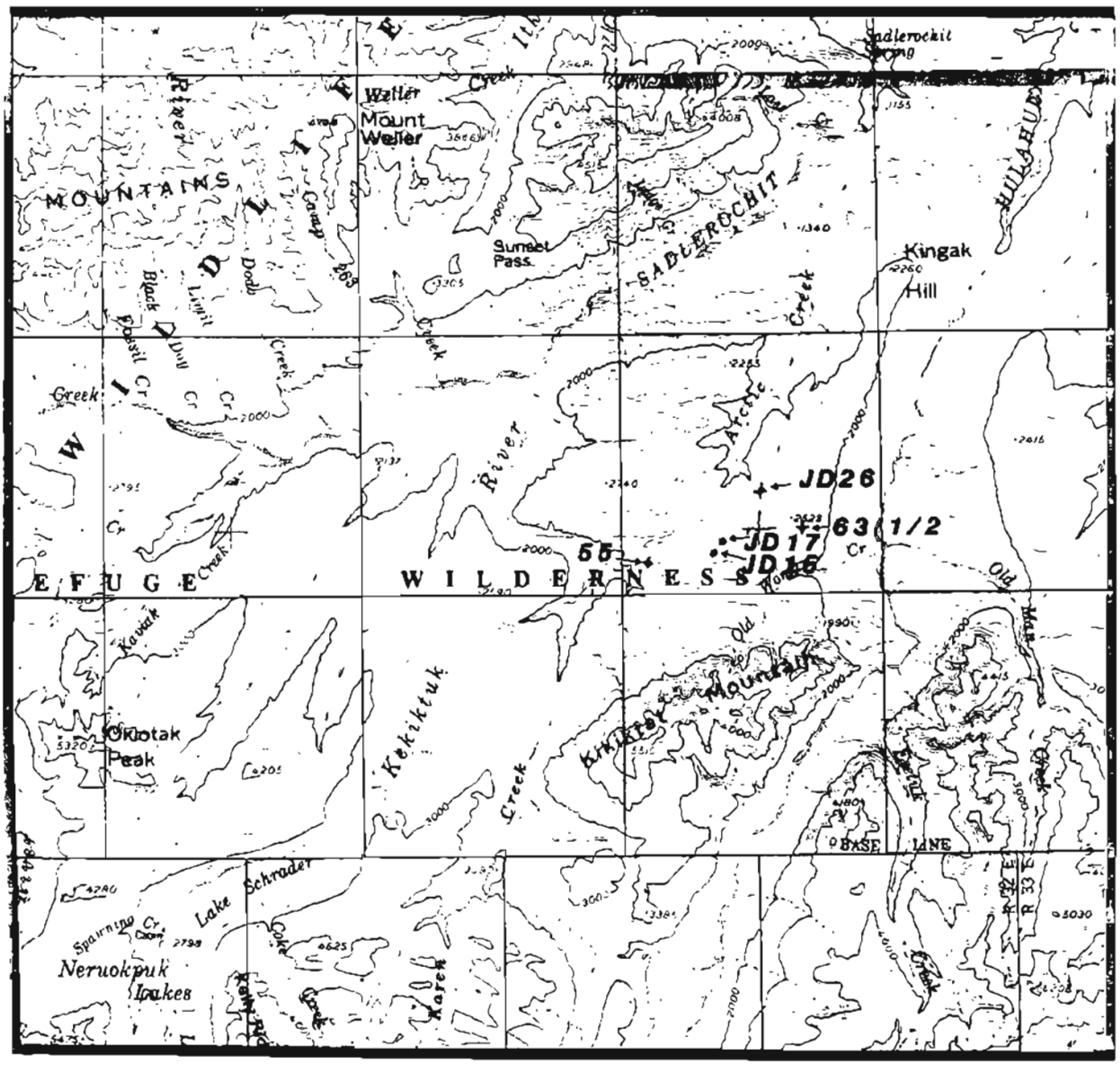
10
15
20
TRACK LENGTH

# ARCTIC CREEK SECTION

MT. MICHELSON 1:250,000



# POS 55A - ALBIAN TURBIDITES

IRRADIATION: PT930-09
ANALYSIS BY POS 4/27/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 12 | 15 | 0.083 | 6.62E+04 | 7.95E+05 | 21.3 +- 22.1 |
| 2 | 2 | 10 | 18 | 0.200 | 1.10E+05 | 5.52E+05 | 50.9 +- 39.5 |
| 3 | 8 | 28 | 8 | 0.286 | 9.93E+05 | 3.48E+06 | 72.7 +- 29.1 |
| 4 | 9 | 91 | 15 | 0.099 | 5.96E+05 | 6.03E+06 | 25.2 +- 8.8 |
| 5 | 0 | 3 | 6 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 6 | 0 | 4 | 6 | 0.000 | 0.00E+00 | 6.62E+05 | 0.0 +- 0.0 |
| 7 | 0 | 4 | 6 | 0.000 | 0.00E+00 | 6.62E+05 | 0.0 +- 0.0 |
| 8 | 1 | 3 | 4 | 0.333 | 2.48E+05 | 7.45E+05 | 84.7 +- 97.8 |
| 9 | 1 | 8 | 4 | 0.125 | 2.48E+05 | 1.99E+06 | 31.9 +- 33.8 |
| 10 | 0 | 1 | 2 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 11 | 1 | 13 | 12 | 0.077 | 8.28E+04 | 1.08E+06 | 19.6 +- 20.4 |
| 12 | 3 | 5 | 6 | 0.600 | 4.97E+05 | 8.28E+05 | 151.6 +- 110.7 |
| 13 | 0 | 6 | 4 | 0.000 | 0.00E+00 | 1.49E+06 | 0.0 +- 0.0 |
| 14 | 0 | 4 | 3 | 0.000 | 0.00E+00 | 1.32E+06 | 0.0 +- 0.0 |
| 15 | 1 | 6 | 5 | 0.167 | 1.99E+05 | 1.19E+06 | 42.5 +- 45.9 |
| 16 | 0 | 1 | 2 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 17 | 4 | 12 | 4 | 0.333 | 9.93E+05 | 2.98E+06 | 84.7 +- 48.9 |
| 18 | 0 | 8 | 6 | 0.000 | 0.00E+00 | 1.32E+06 | 0.0 +- 0.0 |
| 19 | 3 | 13 | 8 | 0.231 | 3.72E+05 | 1.61E+06 | 58.7 +- 37.6 |
| 20 | 1 | 12 | 20 | 0.083 | 4.97E+04 | 5.96E+05 | 21.3 +- 22.1 |
| | 35 | 244 | | | 2.257E+05 | 1.574E+06 | |

AREA OF BASIC UNIT = 1.8068E-06 CM²

VARIANCE OF SQR(NS) = .921205
VARIANCE OF SQR(NI) = 3.41491 CORRELATION COEFFICIENT = 0.923

CHI SQUARED = 17.7482 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.143 +- 0.026 MEAN RATIO = 0.131 +- 0.036

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 36.6 +- 6.6 MYR

MEAN AGE = 33.4 +- 9.1 MYR

# POS 63 1/2 - ALBIAN TURBIDITES

IRRADIATION: PT931-86
ANALYSIS BY POS 4/27/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 10 | 7 | 0.200 | 2.84E+05 | 1.42E+06 | 48.5 +- 37.6 |
| 2 | 0 | 4 | 16 | 0.000 | 0.00E+00 | 2.48E+05 | 0.0 +- 0.0 |
| 3 | 3 | 23 | 16 | 0.130 | 1.66E+05 | 1.27E+06 | 31.7 +- 19.5 |
| 4 | 5 | 38 | 10 | 0.132 | 4.97E+05 | 3.77E+06 | 32.0 +- 15.2 |
| 5 | 0 | 5 | 4 | 0.000 | 0.00E+00 | 1.24E+06 | 0.0 +- 0.0 |
| 6 | 3 | 14 | 20 | 0.214 | 1.49E+05 | 6.95E+05 | 52.0 +- 33.1 |
| 7 | 0 | 2 | 4 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 8 | 3 | 9 | 28 | 0.333 | 1.06E+05 | 3.19E+05 | 80.7 +- 53.8 |
| 9 | 3 | 12 | 30 | 0.250 | 9.93E+04 | 3.97E+05 | 60.6 +- 39.1 |
| 10 | 0 | 11 | 8 | 0.000 | 0.00E+00 | 1.37E+06 | 0.0 +- 0.0 |
| 11 | 1 | 9 | 12 | 0.111 | 8.28E+04 | 7.45E+05 | 27.0 +- 26.5 |
| 12 | 1 | 7 | 16 | 0.143 | 6.21E+04 | 4.35E+05 | 34.7 +- 37.1 |
| 13 | 2 | 12 | 26 | 0.167 | 7.09E+04 | 4.26E+05 | 40.5 +- 30.9 |
| 14 | 0 | 5 | 6 | 0.000 | 0.00E+00 | 8.28E+05 | 0.0 +- 0.0 |
| 15 | 0 | 3 | 6 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 16 | 3 | 18 | 16 | 0.167 | 1.86E+05 | 1.12E+06 | 40.5 +- 25.2 |
| 17 | 2 | 12 | 20 | 0.167 | 9.93E+04 | 5.96E+05 | 40.5 +- 30.9 |
| 18 | 2 | 12 | 8 | 0.167 | 2.48E+05 | 1.49E+06 | 40.5 +- 30.9 |
| 19 | 1 | 5 | 15 | 0.200 | 6.62E+04 | 3.31E+05 | 48.5 +- 53.2 |
| 20 | 3 | 13 | 15 | 0.231 | 1.99E+05 | 8.61E+05 | 56.0 +- 35.8 |
| | 34 | 224 | | | 1.17E+05 | 7.75E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .597208
VARIANCE OF SQR(NI) = 1.21648 CORRELATION COEFFICIENT = 0.834

CHI SQUARED = 7.86213 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.152 +- 0.028 MEAN RATIO = 0.131 +- 0.023

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 36.9 +- 6.8 MYR

MEAN AGE = 31.7 +- 5.5 MYR

# JD 15A - ALBIAN TURBIDITES

IRRADIATION: PT916-13
ANALYSIS BY POS 4/27/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 10 | 12 | 0.100 | 9.23E+04 | 8.28E+05 | 24.2 +- 25.4 |
| 2 | 0 | 14 | 18 | 0.000 | 0.00E+00 | 7.73E+05 | 0.0 +- 0.0 |
| 3 | 1 | 3 | 10 | 0.333 | 9.93E+04 | 2.93E+05 | 80.4 +- 92.8 |
| 4 | 2 | 18 | 12 | 0.200 | 1.66E+05 | 9.28E+05 | 48.3 +- 37.5 |
| 5 | 3 | 22 | 30 | 0.136 | 9.93E+04 | 7.28E+05 | 33.0 +- 20.3 |
| 6 | 0 | 6 | 20 | 0.000 | 0.00E+00 | 2.98E+05 | 0.0 +- 0.0 |
| 7 | 1 | 9 | 6 | 0.111 | 1.66E+05 | 1.49E+06 | 26.9 +- 28.4 |
| 8 | 0 | 3 | 10 | 0.000 | 0.00E+00 | 2.98E+05 | 0.0 +- 0.0 |
| 9 | 5 | 23 | 28 | 0.217 | 2.48E+05 | 1.14E+06 | 52.5 +- 25.9 |
| 10 | 0 | 3 | 24 | 0.000 | 0.00E+00 | 1.24E+05 | 0.0 +- 0.0 |
| 11 | 3 | 8 | 21 | 0.375 | 1.42E+05 | 3.78E+05 | 90.4 +- 61.2 |
| 12 | 3 | 19 | 18 | 0.158 | 1.66E+05 | 1.05E+06 | 38.2 +- 23.7 |
| 13 | 0 | 2 | 8 | 0.000 | 0.00E+00 | 2.48E+05 | 0.0 +- 0.0 |
| 14 | 19 | 110 | 28 | 0.173 | 6.74E+05 | 3.90E+06 | 41.8 +- 10.4 |
| 15 | 3 | 16 | 50 | 0.188 | 5.96E+04 | 3.18E+05 | 45.3 +- 28.5 |
| 16 | 2 | 7 | 10 | 0.286 | 1.99E+05 | 6.95E+05 | 69.0 +- 55.3 |
| 17 | 3 | 13 | 14 | 0.231 | 2.13E+05 | 9.22E+05 | 55.8 +- 35.7 |
| 18 | 3 | 20 | 21 | 0.150 | 1.42E+05 | 9.46E+05 | 36.3 +- 22.5 |
| 19 | 3 | 25 | 15 | 0.120 | 1.99E+05 | 1.66E+06 | 29.1 +- 17.8 |
| 20 | 0 | 2 | 12 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| | 52 | 325 | | | 1.439E+05 | 8.992E+05 | |

AREA OF BASIC UNIT = 1.0868E-06 CM²

VARIANCE OF SQR(NS) = 1.15107
VARIANCE OF SQR(NI) = 4.05333 CORRELATION COEFFICIENT = 0.976

CHI SQUARED = 9.0304 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.160 +- 0.024 MEAN RATIO = 0.139 +- 0.026

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 38.7 +- 5.8 M.P

MEAN AGE = 33.6 +- 6.3 MYR

# JD 17A – ALBIAN TURBIDITES

IRRADIATION: PT916-14
ANALYSIS BY POS 4/27/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 11 | 30 | 0.000 | 0.00E+00 | 3.64E+05 | 0.0 +- 0.0 |
| 2 | 9 | 98 | 20 | 0.100 | 4.47E+05 | 4.47E+06 | 24.2 +- 8.5 |
| 3 | 2 | 10 | 21 | 0.200 | 9.46E+04 | 4.73E+05 | 48.3 +- 37.5 |
| 4 | 0 | 4 | 16 | 0.000 | 0.00E+00 | 2.48E+05 | 0.0 +- 0.0 |
| 5 | 2 | 14 | 20 | 0.143 | 9.93E+04 | 6.95E+05 | 34.6 +- 26.1 |
| 6 | 2 | 17 | 15 | 0.118 | 1.32E+05 | 1.13E+06 | 28.5 +- 21.3 |
| 7 | 4 | 31 | 28 | 0.129 | 1.42E+05 | 1.10E+06 | 31.2 +- 16.6 |
| 8 | 0 | 3 | 32 | 0.000 | 0.00E+00 | 9.31E+04 | 0.0 +- 0.0 |
| 9 | 1 | 9 | 24 | 0.111 | 4.14E+04 | 3.72E+05 | 26.9 +- 20.4 |
| 10 | 3 | 12 | 48 | 0.250 | 6.21E+04 | 2.48E+05 | 60.4 +- 39.0 |
| 11 | 39 | 263 | 30 | 0.148 | 1.29E+06 | 8.71E+06 | 35.9 +- 6.2 |
| 12 | 1 | 7 | 18 | 0.143 | 5.52E+04 | 3.86E+05 | 34.6 +- 37.0 |
| 13 | 0 | 3 | 20 | 0.000 | 0.00E+00 | 1.49E+05 | 0.0 +- 0.0 |
| 14 | 0 | 1 | 38 | 0.000 | 0.00E+00 | 2.61E+04 | 0.0 +- 0.0 |
| 15 | 0 | 2 | 6 | 0.000 | 0.00E+00 | 3.31E+05 | 0.0 +- 0.0 |
| 16 | 0 | 1 | 4 | 0.000 | 0.00E+00 | 2.48E+05 | 0.0 +- 0.0 |
| 17 | 1 | 4 | 16 | 0.250 | 6.21E+04 | 2.48E+05 | 60.4 +- 67.5 |
| 18 | 3 | 16 | 25 | 0.188 | 1.19E+05 | 6.36E+05 | 45.3 +- 28.5 |
| 19 | 12 | 46 | 24 | 0.261 | 4.97E+05 | 1.90E+06 | 63.0 +- 20.4 |
| 20 | 3 | 16 | 36 | 0.188 | 8.28E+04 | 4.41E+05 | 45.3 +- 28.5 |
| | 82 | 568 | | | 1.729E+05 | 1.181E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 2.37629
VARIANCE OF SQR(NI) = 12.4686 CORRELATION COEFFICIENT = 0.982

CHI SQUARED = 9.75851 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.146 +- 0.017 MEAN RATIO = 0.111 +- 0.021

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 35.4 +- 4.2 MYR

MEAN AGE = 27.0 +- 5.1 MYR

# JD 26A - ALBIAN TURBIDITES

IRRADIATION: PT916-15
ANALYSIS BY POS 4/28/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 10 | 36 | 0.100 | 2.76E+04 | 2.76E+05 | 24.2 +- 25.4 |
| 2 | 6 | 96 | 70 | 0.063 | 8.51E+04 | 1.36E+06 | 15.1 +- 6.4 |
| 3 | 0 | 1 | 27 | 0.000 | 0.00E+00 | 3.68E+04 | 0.0 +- 0.0 |
| 4 | 4 | 10 | 20 | 0.400 | 1.99E+05 | 4.97E+05 | 96.3 +- 57.0 |
| 5 | 1 | 3 | 49 | 0.333 | 2.03E+04 | 6.09E+04 | 88.4 +- 92.8 |
| 6 | 1 | 5 | 40 | 0.200 | 2.48E+04 | 1.24E+05 | 48.3 +- 53.0 |
| 7 | 9 | 46 | 45 | 0.196 | 1.99E+05 | 1.02E+06 | 47.3 +- 17.2 |
| 8 | 0 | 5 | 50 | 0.000 | 0.00E+00 | 9.93E+04 | 0.0 +- 0.0 |
| 9 | 10 | 101 | 36 | 0.099 | 2.76E+05 | 2.79E+06 | 24.0 +- 8.8 |
| 10 | 1 | 2 | 15 | 0.500 | 6.62E+04 | 1.32E+05 | 128.2 +- 147.2 |
| 11 | 16 | 171 | 20 | 0.094 | 7.95E+05 | 8.49E+06 | 22.7 +- 5.9 |
| 12 | 18 | 121 | 20 | 0.149 | 8.94E+05 | 6.01E+06 | 36.8 +- 9.1 |
| 13 | 8 | 33 | 25 | 0.242 | 3.18E+05 | 1.31E+06 | 58.6 +- 23.1 |
| 14 | 2 | 9 | 30 | 0.222 | 6.62E+04 | 2.98E+05 | 53.7 +- 42.8 |
| 15 | 1 | 8 | 28 | 0.125 | 3.55E+04 | 2.84E+05 | 30.3 +- 32.1 |
| 16 | 0 | 1 | 21 | 0.000 | 0.00E+00 | 4.73E+04 | 0.0 +- 0.0 |
| 17 | 1 | 7 | 28 | 0.143 | 3.55E+04 | 2.48E+05 | 34.6 +- 37.8 |
| 18 | 0 | 1 | 27 | 0.000 | 0.00E+00 | 3.68E+04 | 0.0 +- 0.0 |
| 19 | 0 | 3 | 32 | 0.000 | 0.00E+00 | 9.31E+04 | 0.0 +- 0.0 |
| 20 | 1 | 3 | 16 | 0.333 | 6.21E+04 | 1.86E+05 | 80.4 +- 92.8 |
| | 80 | 636 | | | 1.251E+05 | 9.948E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 1.82676
VARIANCE OF SQR(NI) = 14.3114 CORRELATION COEFFICIENT = 0.918

CHI SQUARED = 18.967 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.126 +- 0.015 MEAN RATIO = 0.160 +- 0.032

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 30.5 +- 3.6 MYR

MEAN AGE = 38.7 +- 7.8 MYR

# JD 27A – ALBIAN TURBIDITES

IRRADIATION: PT917-01
ANALYSIS BY POS 4/28/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 1 | 14 | 0.000 | 0.00E+00 | 7.09E+04 | 0.0 +- 0.0 |
| 2 | 2 | 5 | 36 | 0.400 | 5.52E+04 | 1.38E+05 | 94.5 +- 79.8 |
| 3 | 1 | 6 | 32 | 0.167 | 3.10E+04 | 1.86E+05 | 39.5 +- 42.7 |
| 4 | 7 | 69 | 36 | 0.101 | 1.93E+05 | 1.90E+06 | 24.1 +- 9.6 |
| 5 | 0 | 3 | 25 | 0.000 | 0.00E+00 | 1.19E+05 | 0.0 +- 0.0 |
| 6 | 0 | 1 | 12 | 0.000 | 0.00E+00 | 8.28E+04 | 0.0 +- 0.0 |
| 7 | 4 | 27 | 10 | 0.148 | 2.21E+05 | 1.49E+06 | 35.1 +- 18.8 |
| 8 | 0 | 3 | 30 | 0.000 | 0.00E+00 | 6.62E+04 | 0.0 +- 0.0 |
| 9 | 0 | 2 | 25 | 0.000 | 0.00E+00 | 7.95E+04 | 0.0 +- 0.0 |
| 10 | 0 | 1 | 35 | 0.000 | 0.00E+00 | 2.84E+04 | 0.0 +- 0.0 |
| 11 | 0 | 2 | 21 | 0.000 | 0.00E+00 | 9.46E+04 | 0.0 +- 0.0 |
| 12 | 0 | 5 | 27 | 0.000 | 0.00E+00 | 1.84E+05 | 0.0 +- 0.0 |
| 13 | 1 | 3 | 16 | 0.333 | 6.21E+04 | 1.86E+05 | 78.8 +- 91.0 |
| 14 | 2 | 6 | 36 | 0.333 | 5.52E+04 | 1.66E+05 | 78.8 +- 64.4 |
| 15 | 2 | 12 | 24 | 0.167 | 8.28E+04 | 4.97E+05 | 39.5 +- 30.2 |
| 16 | 15 | 76 | 30 | 0.197 | 4.97E+05 | 2.52E+06 | 46.8 +- 13.2 |
| 17 | 2 | 4 | 12 | 0.500 | 1.66E+05 | 3.31E+05 | 117.9 +- 102.1 |
| 18 | 0 | 3 | 20 | 0.000 | 0.00E+00 | 1.49E+05 | 0.0 +- 0.0 |
| 19 | 1 | 6 | 20 | 0.125 | 4.97E+04 | 3.97E+05 | 29.7 +- 31.5 |
| 20 | 1 | 2 | 12 | 0.500 | 8.28E+04 | 1.66E+05 | 117.9 +- 144.4 |
| | 38 | 238 | | | 7.847E+04 | 4.915E+05 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = 1.13065
VARIANCE OF SQR(NI) = 4.92713 CORRELATION COEFFICIENT = 0.933

CHI SQUARED = 10.6348 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.160 +- 0.028 MEAN RATIO = 0.149 +- 0.039

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.349E+06 ND = 5354

POOLED AGE = 37.9 +- 6.6 MYR

MEAN AGE = 35.3 +- 9.3 MYR

# JD 38B - ALBIAN TURBIDITES

IRRADIATION: PT917-03
ANALYSIS BY POS 4/28/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 6 | 18 | 0.167 | 5.52E+04 | 3.31E+05 | 39.5 +- 42.7 |
| 2 | 1 | 3 | 12 | 0.333 | 8.28E+04 | 2.48E+05 | 78.8 +- 91.8 |
| 3 | 10 | 61 | 16 | 0.164 | 6.21E+05 | 3.79E+06 | 38.9 +- 13.3 |
| 4 | 0 | 3 | 18 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 5 | 1 | 7 | 12 | 0.143 | 8.28E+04 | 5.79E+05 | 33.9 +- 36.2 |
| 6 | 1 | 2 | 9 | 0.500 | 1.10E+05 | 2.21E+05 | 117.9 +- 144.4 |
| 7 | 2 | 12 | 6 | 0.167 | 3.31E+05 | 1.99E+06 | 39.5 +- 30.2 |
| 8 | 0 | 2 | 9 | 0.000 | 0.00E+00 | 2.21E+05 | 0.0 +- 0.0 |
| 9 | 4 | 20 | 10 | 0.200 | 3.97E+05 | 1.99E+06 | 47.4 +- 26.0 |
| 10 | 13 | 82 | 24 | 0.159 | 5.38E+05 | 3.39E+06 | 37.6 +- 11.2 |
| 11 | 1 | 5 | 8 | 0.200 | 1.24E+05 | 6.21E+05 | 47.4 +- 51.9 |
| | 34 | 203 | | | 2.37E+05 | 1.42E+06 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = 1.3046
VARIANCE OF SQR(NI) = 5.87595 CORRELATION COEFFICIENT = 0.996

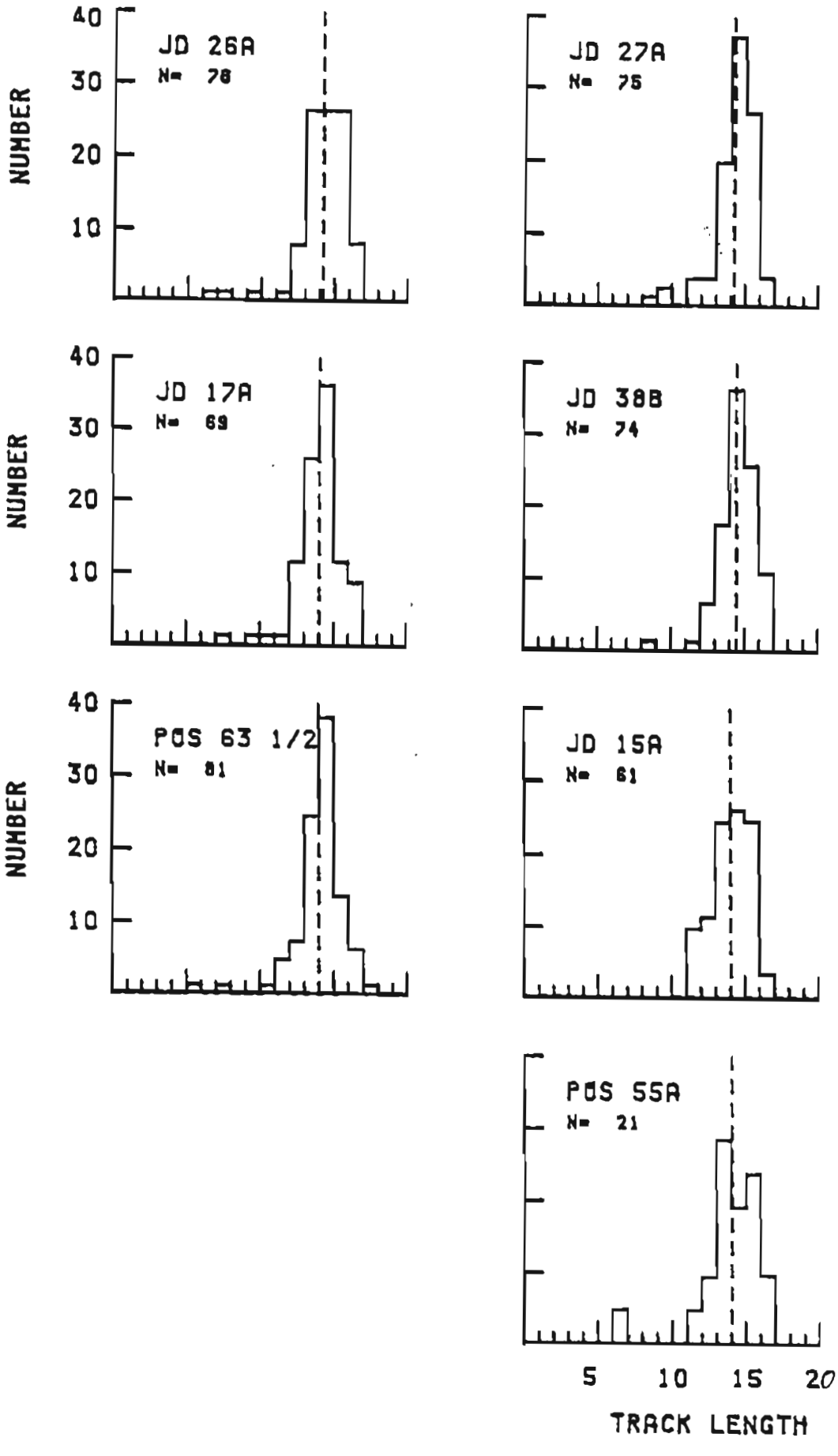
CHI SQUARED = 2.27865 WITH 10 DEGREES OF FREEDOM PASS

NS/NI = 0.167 +- 0.031 MEAN RATIO = 0.185 +- 0.042

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.349E+06 ND = 5354

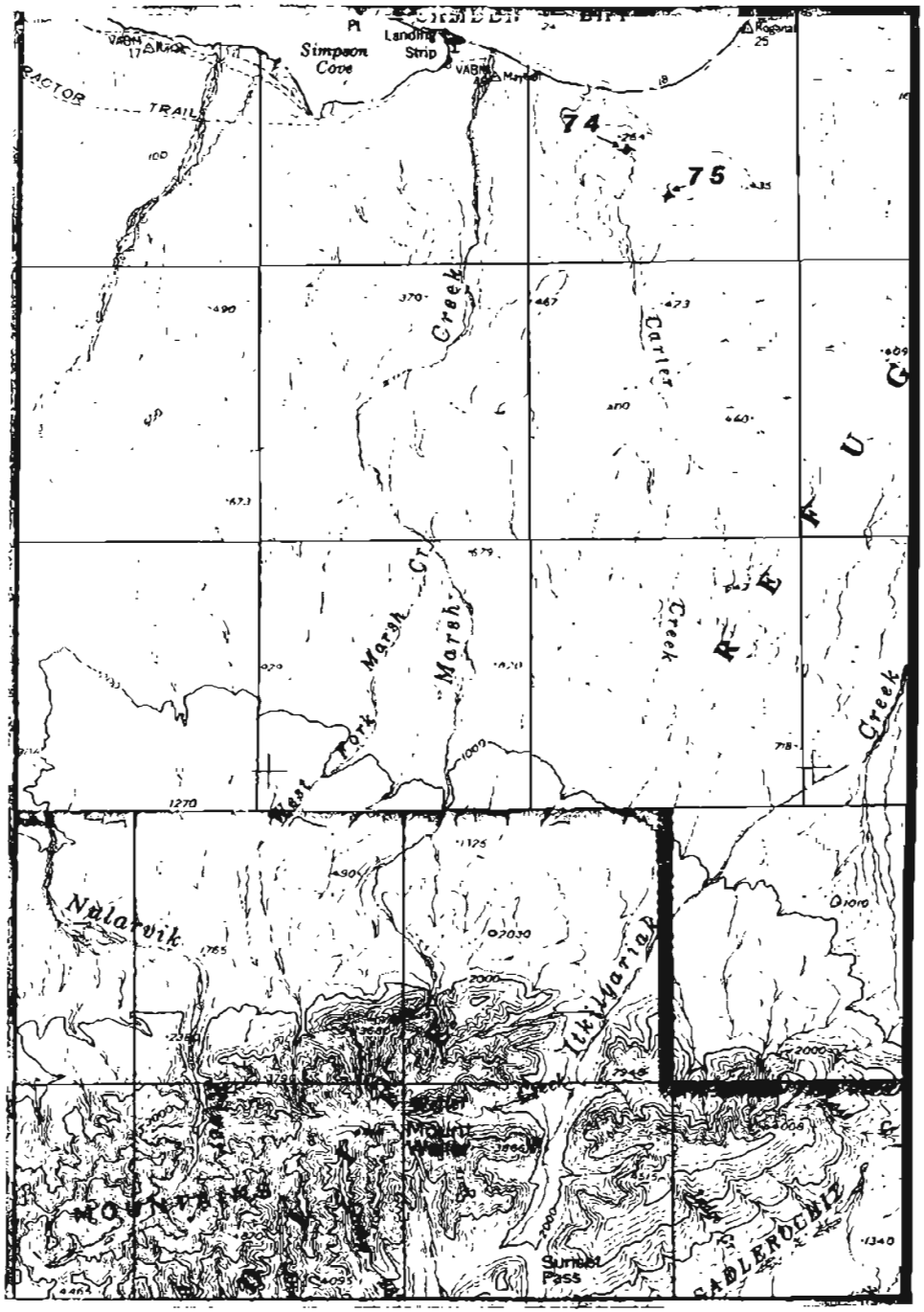
POOLED AGE = 39.7 +- 7.4 MYR

MEAN AGE = 43.3 +- 10.0 MYR

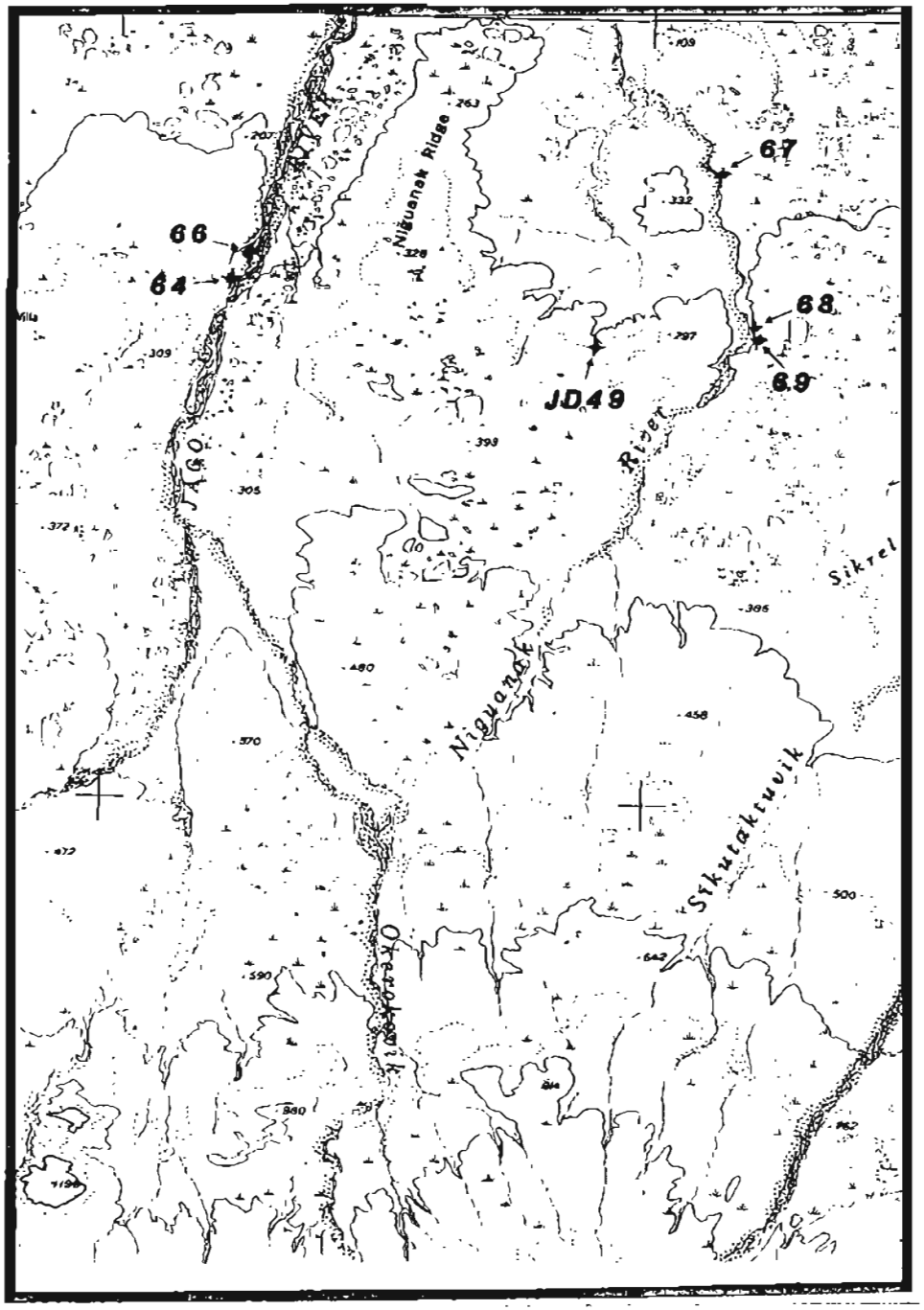

NUMBER
40
30
20
10
JD 26A
N= 78
JD 27A
N= 75
JD 17A
N= 69
JD 38B
N= 74
POS 63 1/2
N= 81
JD 15A
N= 61
POS 55A
N= 21
5
10
15
20
TRACK LENGTH

# ARCTIC COASTAL PLAIN SAMPLES

MT. MICHELSON 1:250,000




DEMARCATION POINT 1:250,000



# POS 64A - DISTAL CANNING FM.

IRRADIATION: PT931-01
ANALYSIS BY POS 4/30/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 5 | 43 | 8 | 0.116 | 6.21E+05 | 5.34E+06 | 28.3 +- 13.4 |
| 2 | 4 | 9 | 15 | 0.444 | 2.65E+05 | 5.96E+05 | 107.3 +- 64.5 |
| 3 | 1 | 2 | 15 | 0.500 | 6.62E+04 | 1.32E+05 | 120.6 +- 147.7 |
| 4 | 17 | 58 | 10 | 0.293 | 1.69E+06 | 5.76E+06 | 71.0 +- 19.6 |
| 5 | 1 | 2 | 8 | 0.500 | 1.24E+05 | 2.48E+05 | 120.6 +- 147.7 |
| 6 | 2 | 5 | 2 | 0.400 | 9.93E+05 | 2.48E+06 | 96.7 +- 80.9 |
| 7 | 0 | 3 | 15 | 0.000 | 0.00E+00 | 1.99E+05 | 0.0 +- 0.0 |
| 8 | 1 | 4 | 5 | 0.250 | 1.99E+05 | 7.95E+05 | 60.6 +- 67.7 |
| 9 | 0 | 1 | 6 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 10 | 0 | 2 | 9 | 0.000 | 0.00E+00 | 2.21E+05 | 0.0 +- 0.0 |
| | 31 | 129 | | | 3.311E+05 | 1.378E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 1.63156
VARIANCE OF SQR(NI) = 5.38167 CORRELATION COEFFICIENT = 0.907

CHI SQUARED = 6.63706 WITH 9 DEGREES OF FREEDOM PASS

NS/NI = 0.240 +- 0.048 MEAN RATIO = 0.250 +- 0.066

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 58.3 +- 11.7 MYR

MEAN AGE = 60.7 +- 16.0 MYR

# POS 67A - SABBATH CREEK FM.

IRRADIATION: PT931-04
ANALYSIS BY POS 4/30/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 2 | 12 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 2 | 1 | 3 | 12 | 0.333 | 8.28E+04 | 2.48E+05 | 80.7 +- 93.2 |
| 3 | 14 | 37 | 14 | 0.378 | 9.93E+05 | 2.63E+06 | 91.5 +- 28.7 |
| 4 | 4 | 4 | 20 | 1.000 | 1.99E+05 | 1.99E+05 | 239.1 +- 169.0 |
| 5 | 4 | 20 | 30 | 0.200 | 1.32E+05 | 6.62E+05 | 48.5 +- 26.6 |
| 6 | 14 | 51 | 12 | 0.275 | 1.16E+06 | 4.22E+06 | 66.5 +- 20.1 |
| 7 | 1 | 7 | 18 | 0.143 | 5.52E+04 | 3.86E+05 | 34.7 +- 37.1 |
| 8 | 9 | 15 | 6 | 0.600 | 1.49E+06 | 2.48E+06 | 144.5 +- 68.9 |
| 9 | 15 | 61 | 24 | 0.246 | 6.21E+05 | 2.52E+06 | 59.6 +- 17.2 |
| 10 | 0 | 3 | 20 | 0.000 | 0.00E+00 | 1.49E+05 | 0.0 +- 0.0 |
| 11 | 5 | 13 | 18 | 0.385 | 2.76E+05 | 7.17E+05 | 93.0 +- 48.9 |
| 12 | 16 | 61 | 16 | 0.262 | 9.93E+05 | 3.79E+06 | 63.6 +- 17.9 |
| 13 | 0 | 1 | 30 | 0.000 | 0.00E+00 | 3.31E+04 | 0.0 +- 0.0 |
| 14 | 17 | 49 | 15 | 0.347 | 1.13E+06 | 3.24E+06 | 83.9 +- 23.6 |
| 15 | 11 | 31 | 35 | 0.355 | 3.12E+05 | 8.80E+05 | 85.8 +- 30.1 |
| 16 | 1 | 6 | 14 | 0.167 | 7.09E+04 | 4.26E+05 | 40.5 +- 43.7 |
| 17 | 1 | 4 | 12 | 0.250 | 8.28E+04 | 3.31E+05 | 60.6 +- 67.7 |
| 18 | 6 | 10 | 16 | 0.600 | 3.72E+05 | 6.21E+05 | 144.5 +- 74.6 |
| 19 | 27 | 106 | 24 | 0.255 | 1.12E+06 | 4.39E+06 | 61.7 +- 13.3 |
| 20 | 25 | 42 | 40 | 0.595 | 6.21E+05 | 1.04E+06 | 143.4 +- 36.2 |
| | 171 | 526 | | | 4.377E+05 | 1.347E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 2.76442
VARIANCE OF SQR(NI) = 7.17754 CORRELATION COEFFICIENT = 0.903

CHI SQUARED = 19.7615 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.325 +- 0.029 MEAN RATIO = 0.320 +- 0.054

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 78.7 +- 7.0 MYR

MEAN AGE = 77.3 +- 13.1 MYR

# POS 48A - DISTAL CANNING FM.

IRRADIATION: PT931-02
ANALYSIS BY POS 4/30/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 5 | 14 | 16 | 0.357 | 3.10E+05 | 8.69E+05 | 86.4 +- 45.0 |
| 2 | 1 | 4 | 12 | 0.250 | 3.28E+04 | 3.31E+05 | 68.6 +- 67.7 |
| 3 | 0 | 1 | 8 | 0.000 | 0.00E+00 | 1.24E+05 | 0.0 +- 0.0 |
| 4 | 0 | 3 | 18 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 5 | 9 | 11 | 8 | 0.818 | 1.12E+06 | 1.37E+06 | 196.2 +- 88.2 |
| 6 | 2 | 5 | 18 | 0.400 | 1.10E+05 | 2.76E+05 | 96.7 +- 80.9 |
| 7 | 2 | 3 | 12 | 0.667 | 1.66E+05 | 2.48E+05 | 168.3 +- 146.4 |
| 8 | 1 | 3 | 12 | 0.333 | 8.28E+04 | 2.48E+05 | 80.7 +- 93.2 |
| 9 | 1 | 3 | 20 | 0.333 | 4.97E+04 | 1.49E+05 | 80.7 +- 93.2 |
| 10 | 2 | 5 | 18 | 0.400 | 1.10E+05 | 2.76E+05 | 96.7 +- 80.9 |
| 11 | 10 | 31 | 14 | 0.323 | 7.09E+05 | 2.28E+06 | 78.1 +- 28.4 |
| 12 | 0 | 2 | 12 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 13 | 1 | 3 | 16 | 0.333 | 6.21E+04 | 1.86E+05 | 80.7 +- 93.2 |
| 14 | 2 | 14 | 12 | 0.143 | 1.66E+05 | 1.16E+06 | 34.7 +- 26.2 |
| 15 | 2 | 6 | 21 | 0.333 | 9.46E+04 | 2.84E+05 | 80.7 +- 65.9 |
| 16 | 12 | 30 | 6 | 0.400 | 1.99E+06 | 4.97E+06 | 96.7 +- 33.8 |
| 17 | 7 | 16 | 6 | 0.438 | 1.16E+06 | 2.65E+06 | 105.7 +- 47.9 |
| 18 | 4 | 10 | 10 | 0.400 | 3.97E+05 | 9.93E+05 | 96.7 +- 57.2 |
| 19 | 0 | 2 | 16 | 0.000 | 0.00E+00 | 1.24E+05 | 0.0 +- 0.0 |
| 20 | 14 | 36 | 28 | 0.389 | 4.97E+05 | 1.28E+06 | 94.0 +- 29.6 |
| | 75 | 282 | | | 2.632E+05 | 7.090E+05 | |

AREA OF BASIC UNIT = 1.8868E-06 CM²

VARIANCE OF SQR(NS) = 1.36579
VARIANCE OF SQR(NI) = 2.25543 CORRELATION COEFFICIENT = 0.938

CHI SQUARED = 8.92728 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.371 +- 0.050 MEAN RATIO = 0.316 +- 0.048

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 89.8 +- 12.2 MYR

MEAN AGE = 76.5 +- 11.6 MYR

# POS 69A - DISTAL CANNING FM.

IRRADIATION: PT916-08
ANALYSIS BY POS 4/30/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 8 | 11 | 0.250 | 1.81E+05 | 7.22E+05 | 68.4 +- 47.7 |
| 2 | 5 | 16 | 12 | 0.313 | 4.14E+05 | 1.32E+06 | 75.4 +- 38.6 |
| 3 | 13 | 27 | 9 | 0.481 | 1.43E+06 | 2.98E+06 | 115.8 +- 39.1 |
| 4 | 4 | 8 | 16 | 0.500 | 2.48E+05 | 4.97E+05 | 120.2 +- 73.6 |
| 5 | 4 | 3 | 27 | 1.333 | 1.47E+05 | 1.10E+05 | 315.7 +- 241.1 |
| 6 | 7 | 28 | 24 | 0.250 | 2.90E+05 | 1.16E+06 | 68.4 +- 25.5 |
| 7 | 1 | 2 | 21 | 0.500 | 4.73E+04 | 9.46E+04 | 120.2 +- 147.2 |
| 8 | 15 | 23 | 15 | 0.652 | 9.93E+05 | 1.52E+06 | 156.3 +- 51.9 |
| 9 | 3 | 9 | 36 | 0.333 | 8.28E+04 | 2.48E+05 | 88.4 +- 53.6 |
| 10 | 4 | 4 | 12 | 1.000 | 3.31E+05 | 3.31E+05 | 238.2 +- 168.4 |
| 11 | 4 | 12 | 16 | 0.333 | 2.48E+05 | 7.45E+05 | 88.4 +- 46.4 |
| 12 | 16 | 18 | 24 | 0.889 | 6.62E+05 | 7.45E+05 | 212.2 +- 72.9 |
| 13 | 14 | 33 | 10 | 0.424 | 1.39E+06 | 3.28E+06 | 102.1 +- 32.6 |
| 14 | 16 | 30 | 9 | 0.533 | 1.77E+06 | 3.31E+06 | 128.1 +- 39.7 |
| 15 | 0 | 6 | 16 | 0.000 | 0.00E+00 | 3.72E+05 | 0.0 +- 0.0 |
| 16 | 4 | 12 | 28 | 0.333 | 1.99E+05 | 5.96E+05 | 80.4 +- 46.4 |
| 17 | 6 | 25 | 16 | 0.240 | 3.72E+05 | 1.55E+06 | 58.0 +- 26.4 |
| 18 | 0 | 1 | 8 | 0.000 | 0.00E+00 | 1.24E+05 | 0.0 +- 0.0 |
| 19 | 0 | 4 | 20 | 0.000 | 0.00E+00 | 1.99E+05 | 0.0 +- 0.0 |
| 20 | 1 | 4 | 25 | 0.250 | 3.97E+04 | 1.59E+05 | 60.4 +- 67.5 |
| | 113 | 273 | | | 3.406E+05 | 7.814E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 1.68762
VARIANCE OF SQR(NI) = 2.22549 CORRELATION COEFFICIENT = 0.831

CHI SQUARED = 20.5285 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.436 +- 0.048 MEAN RATIO = 0.431 +- 0.075

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 104.9 +- 11.6 MYR

MEAN AGE = 103.7 +- 18.2 MYR

# POS 74A - TERTIARY SS.

IRRADIATION: PT930-01
ANALYSIS BY POS 4/29/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 2 | 6 | 0.500 | 1.66E+05 | 3.31E+05 | 126.6 +- 155.1 |
| 2 | 0 | 1 | 6 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 3 | 2 | 2 | 12 | 1.000 | 1.66E+05 | 1.66E+05 | 250.8 +- 250.8 |
| 4 | 0 | 3 | 12 | 0.000 | 0.00E+00 | 2.48E+05 | 0.0 +- 0.0 |
| 5 | 1 | 1 | 4 | 1.000 | 2.48E+05 | 2.48E+05 | 250.8 +- 354.6 |
| 6 | 0 | 3 | 10 | 0.000 | 0.00E+00 | 2.98E+05 | 0.0 +- 0.0 |
| 7 | 2 | 7 | 12 | 0.286 | 1.66E+05 | 5.79E+05 | 72.7 +- 58.2 |
| 8 | 1 | 2 | 18 | 0.500 | 5.52E+04 | 1.10E+05 | 126.6 +- 155.1 |
| 9 | 2 | 6 | 6 | 0.333 | 3.31E+05 | 9.93E+05 | 84.7 +- 69.1 |
| 10 | 1 | 2 | 8 | 0.500 | 1.24E+05 | 2.48E+05 | 126.6 +- 155.1 |
| 11 | 0 | 2 | 12 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 12 | 2 | 4 | 6 | 0.500 | 3.31E+05 | 6.62E+05 | 126.6 +- 189.6 |
| 13 | 0 | 3 | 20 | 0.000 | 0.00E+00 | 1.49E+05 | 0.0 +- 0.0 |
| 14 | 1 | 7 | 10 | 0.143 | 9.93E+04 | 6.95E+05 | 36.4 +- 38.9 |
| 15 | 3 | 16 | 10 | 0.188 | 2.98E+05 | 1.59E+06 | 47.8 +- 30.1 |
| 16 | 0 | 3 | 10 | 0.000 | 0.00E+00 | 2.98E+05 | 0.0 +- 0.0 |
| 17 | 2 | 6 | 36 | 0.333 | 5.52E+04 | 1.66E+05 | 84.7 +- 69.1 |
| 18 | 0 | 1 | 6 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 19 | 2 | 4 | 10 | 0.500 | 1.99E+05 | 3.97E+05 | 126.6 +- 189.6 |
| 20 | 10 | 30 | 12 | 0.333 | 8.28E+05 | 2.48E+06 | 84.7 +- 38.9 |
| | 38 | 185 | | | 1.318E+05 | 4.615E+05 | |

AREA OF BASIC UNIT = 1.0060E-06 CM²

VARIANCE OF SQR(NS) = .689974
VARIANCE OF SQR(NI) = 1.1742 CORRELATION COEFFICIENT = 0.925

CHI SQUARED = 9.89239 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.286 +- 0.059 MEAN RATIO = 0.306 +- 0.070

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 72.7 +- 15.1 MYR

MEAN AGE = 77.7 +- 17.8 MYR

# POS 748 - TERTIARY SS.

IRRADIATION: PT931-05
ANALYSIS BY POS 4/29/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 3 | 15 | 0.333 | 6.62E+04 | 1.99E+05 | 88.7 +- 93.2 |
| 2 | 1 | 4 | 30 | 0.250 | 3.31E+04 | 1.32E+05 | 60.6 +- 67.7 |
| 3 | 0 | 2 | 21 | 0.000 | 0.00E+00 | 9.46E+04 | 0.0 +- 0.0 |
| 4 | 1 | 2 | 16 | 0.500 | 6.21E+04 | 1.24E+05 | 120.6 +- 147.7 |
| 5 | 0 | 1 | 18 | 0.000 | 0.00E+00 | 5.52E+04 | 0.0 +- 0.0 |
| 6 | 3 | 11 | 9 | 0.273 | 3.31E+05 | 1.21E+06 | 66.1 +- 43.0 |
| 7 | 2 | 6 | 15 | 0.333 | 1.32E+05 | 3.97E+05 | 88.7 +- 65.9 |
| 8 | 3 | 27 | 15 | 0.111 | 1.99E+05 | 1.79E+06 | 27.8 +- 16.4 |
| 9 | 6 | 33 | 6 | 0.182 | 9.93E+05 | 5.46E+06 | 44.1 +- 19.6 |
| 10 | 3 | 6 | 9 | 0.500 | 3.31E+05 | 6.62E+05 | 120.6 +- 85.3 |
| 11 | 1 | 3 | 8 | 0.333 | 1.24E+05 | 3.72E+05 | 88.7 +- 93.2 |
| 12 | 7 | 10 | 8 | 0.700 | 8.69E+05 | 1.24E+06 | 168.3 +- 82.9 |
| 13 | 0 | 5 | 30 | 0.000 | 0.00E+00 | 1.66E+05 | 0.0 +- 0.0 |
| 14 | 4 | 4 | 16 | 1.000 | 2.48E+05 | 2.48E+05 | 239.1 +- 169.0 |
| 15 | 5 | 16 | 6 | 0.313 | 8.28E+05 | 2.65E+06 | 75.7 +- 38.0 |
| 16 | 2 | 5 | 30 | 0.400 | 6.62E+04 | 1.66E+05 | 96.7 +- 80.9 |
| 17 | 6 | 7 | 12 | 0.857 | 4.97E+05 | 5.79E+05 | 285.4 +- 114.3 |
| 18 | 0 | 2 | 15 | 0.000 | 0.00E+00 | 1.32E+05 | 0.0 +- 0.0 |
| 19 | 1 | 8 | 24 | 0.125 | 4.14E+04 | 3.31E+05 | 30.4 +- 32.2 |
| 20 | 2 | 9 | 12 | 0.250 | 1.66E+05 | 6.62E+05 | 60.6 +- 47.9 |
| | 48 | 163 | | | 1.514E+05 | 5.140E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .717192
VARIANCE OF SQR(NI) = 1.51777 CORRELATION COEFFICIENT = 0.590

CHI SQUARED = 19.3723 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.294 +- 0.048 MEAN RATIO = 0.323 +- 0.063

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 71.3 +- 11.8 MYR

MEAN AGE = 78.2 +- 15.2 MYR

# JD 49A – HUE SHALE TUFF

IRRADIATION: PT917-04
ANALYSIS BY POS 4/28/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 5 | 7 | 15 | 0.714 | 3.31E+05 | 4.64E+05 | 167.7 +- 98.2 |
| 2 | 4 | 17 | 40 | 0.235 | 9.93E+04 | 4.22E+05 | 55.7 +- 31.0 |
| 3 | 6 | 17 | 36 | 0.353 | 1.66E+05 | 4.69E+05 | 83.4 +- 39.6 |
| 4 | 10 | 9 | 20 | 1.111 | 4.97E+05 | 4.47E+05 | 259.1 +- 119.0 |
| 5 | 6 | 12 | 24 | 0.500 | 2.48E+05 | 4.97E+05 | 117.9 +- 58.9 |
| 6 | 3 | 6 | 20 | 0.500 | 1.86E+05 | 2.13E+05 | 117.9 +- 83.3 |
| 7 | 12 | 18 | 24 | 0.667 | 4.97E+05 | 7.45E+05 | 156.7 +- 58.4 |
| 8 | 2 | 6 | 18 | 0.333 | 1.10E+05 | 3.31E+05 | 78.8 +- 64.4 |
| 9 | 4 | 10 | 27 | 0.400 | 1.47E+05 | 3.68E+05 | 94.5 +- 55.9 |
| 10 | 2 | 11 | 24 | 0.182 | 8.28E+04 | 4.55E+05 | 43.1 +- 33.1 |
| 11 | 4 | 20 | 40 | 0.200 | 9.93E+04 | 4.97E+05 | 47.4 +- 26.0 |
| 12 | 3 | 4 | 12 | 0.750 | 2.48E+05 | 3.31E+05 | 176.8 +- 134.4 |
| 13 | 5 | 11 | 28 | 0.455 | 1.77E+05 | 3.98E+05 | 107.2 +- 57.0 |
| 14 | 3 | 12 | 40 | 0.250 | 7.45E+04 | 2.98E+05 | 59.2 +- 38.2 |
| 15 | 3 | 18 | 28 | 0.167 | 1.06E+05 | 6.39E+05 | 39.5 +- 24.7 |
| 16 | 3 | 14 | 18 | 0.214 | 1.66E+05 | 7.73E+05 | 50.8 +- 32.3 |
| 17 | 7 | 14 | 24 | 0.500 | 2.98E+05 | 5.79E+05 | 117.9 +- 54.6 |
| 18 | 4 | 11 | 15 | 0.364 | 2.65E+05 | 7.28E+05 | 85.9 +- 50.2 |
| 19 | 4 | 13 | 36 | 0.308 | 1.10E+05 | 3.59E+05 | 72.8 +- 41.6 |
| 20 | 4 | 14 | 24 | 0.286 | 1.66E+05 | 5.79E+05 | 67.6 +- 38.3 |
| | 94 | 244 | | | 1.792E+05 | 4.652E+05 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .276054
VARIANCE OF SQR(NI) = .45105 CORRELATION COEFFICIENT = 0.267

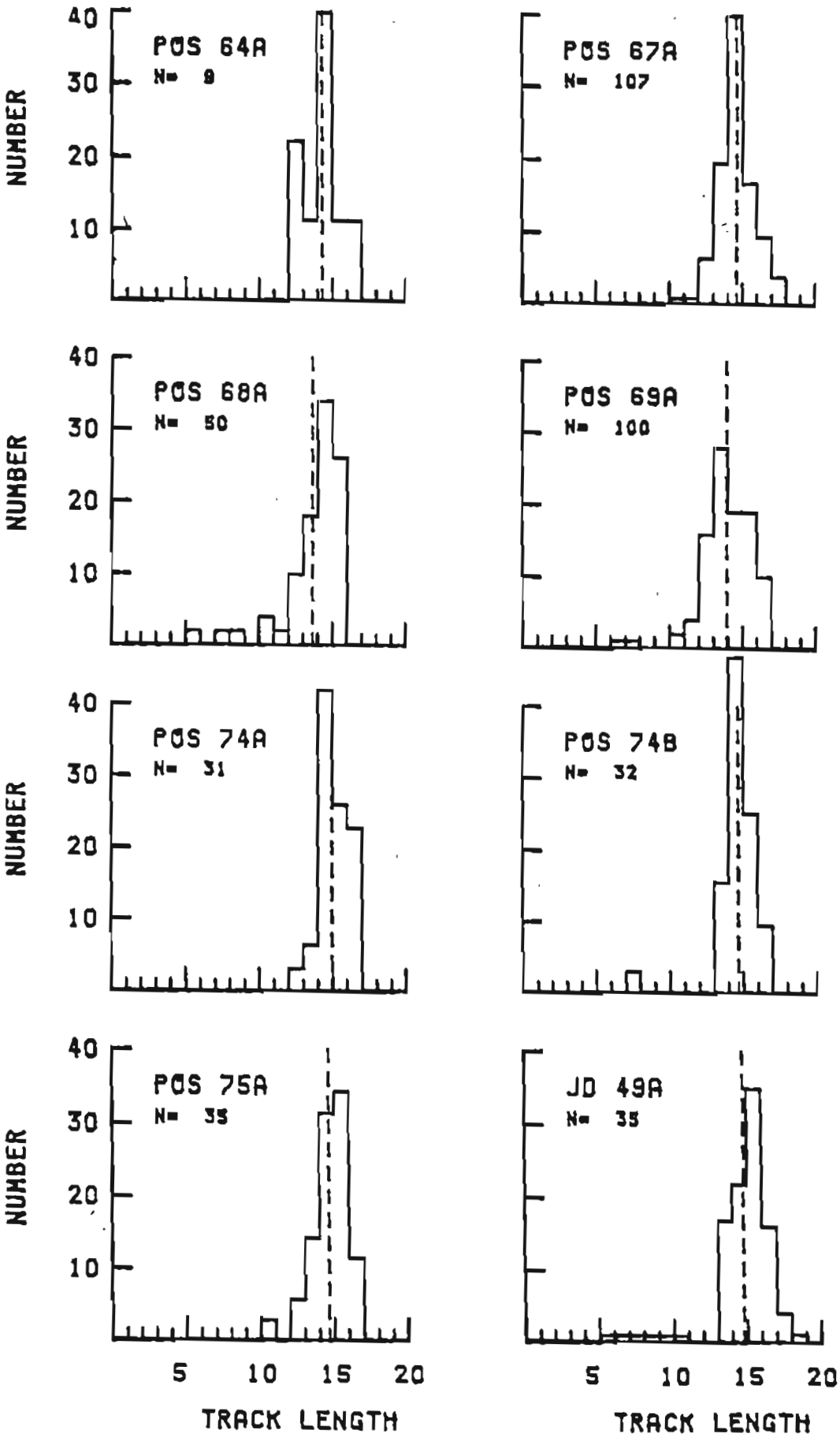
CHI SQUARED = 17.8573 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.385 +- 0.047 MEAN RATIO = 0.424 +- 0.053

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.349E+06 ND = 5354

POOLED AGE = 91.0 +- 11.1 MYR

MEAN AGE = 100.2 +- 12.6 MYR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POS 67A
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POS 68A
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N= 100
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POS 74B
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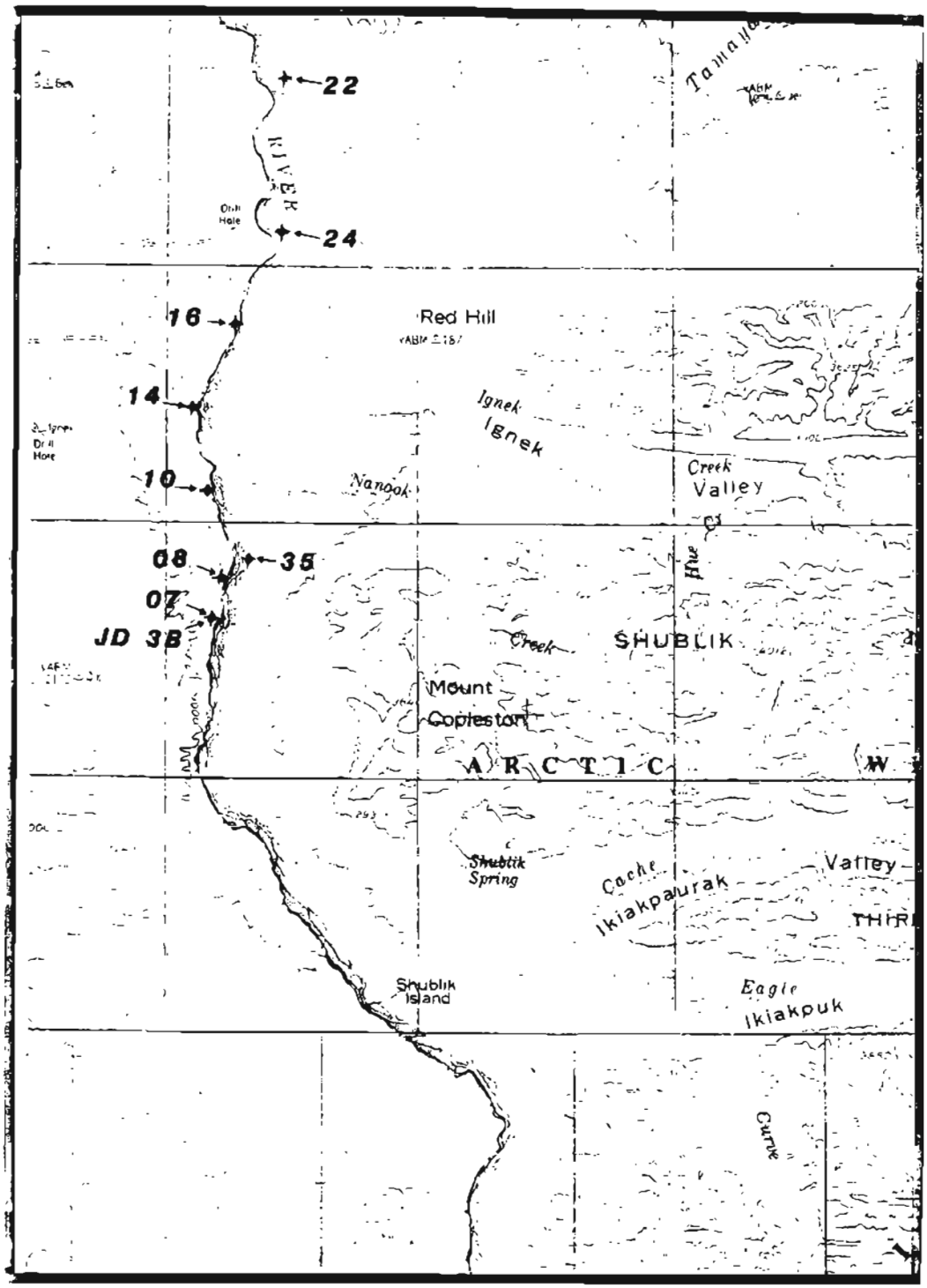
POS 75A
N= 35
JD 49A
N= 35
NUMBER
40
30
20
10
5
10
15
20
TRACK LENGTH

# CANNING RIVER SECTION

MT. MICHELSON 1:250,000



# POS 07A — KEMICK FM.

IRRADIATION: PT930-12
ANALYSIS BY POS 4/26/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 7 | 6 | 0.143 | 1.66E+05 | 1.16E+06 | 36.4 +- 38.9 |
| 2 | 1 | 9 | 18 | 0.111 | 9.93E+04 | 8.94E+05 | 28.3 +- 29.9 |
| 3 | 1 | 8 | 12 | 0.125 | 8.28E+04 | 6.62E+05 | 31.9 +- 33.8 |
| 4 | 2 | 3 | 12 | 0.667 | 1.66E+05 | 2.48E+05 | 168.3 +- 153.6 |
| 5 | 2 | 14 | 5 | 0.143 | 3.97E+05 | 2.78E+06 | 36.4 +- 27.5 |
| 6 | 6 | 45 | 8 | 0.133 | 7.45E+05 | 5.59E+06 | 34.0 +- 14.8 |
| 7 | 0 | 10 | 3 | 0.000 | 0.00E+00 | 3.31E+06 | 0.0 +- 0.0 |
| 8 | 4 | 25 | 6 | 0.160 | 6.62E+05 | 4.14E+06 | 40.8 +- 22.0 |
| 9 | 3 | 27 | 9 | 0.111 | 3.31E+05 | 2.98E+06 | 28.3 +- 17.3 |
| 10 | 4 | 24 | 12 | 0.167 | 3.31E+05 | 1.99E+06 | 42.5 +- 22.9 |
| 11 | 1 | 11 | 8 | 0.091 | 1.24E+05 | 1.37E+06 | 23.2 +- 24.2 |
| 12 | 2 | 20 | 16 | 0.100 | 1.24E+05 | 1.24E+06 | 25.5 +- 18.9 |
| 13 | 0 | 10 | 4 | 0.000 | 0.00E+00 | 2.48E+06 | 0.0 +- 0.0 |
| 14 | 2 | 27 | 4 | 0.074 | 4.97E+05 | 6.70E+06 | 18.9 +- 13.9 |
| 15 | 0 | 5 | 6 | 0.000 | 0.00E+00 | 8.28E+05 | 0.0 +- 0.0 |
| | 29 | 245 | | | 2.381E+05 | 2.811E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = .556151
VARIANCE OF SQR(NI) = 1.86705 CORRELATION COEFFICIENT = 0.864

CHI SQUARED = 8.96987 WITH 14 DEGREES OF FREEDOM PASS

NS/NI = 0.118 +- 0.023 MEAN RATIO = 0.135 +- 0.041

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 30.2 +- 5.9 MYR

MEAN AGE = 34.4 +- 10.4 MYR

# POS 08A - CANNING FM.

IRRADIATION: PT916-02
ANALYSIS BY POS 4/26/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 2 | 15 | 12 | 0.133 | 1.66E+05 | 1.24E+06 | 32.3 +- 24.3 |
| 2 | 1 | 24 | 28 | 0.042 | 3.55E+04 | 8.51E+05 | 10.1 +- 10.3 |
| 3 | 7 | 72 | 48 | 0.097 | 1.74E+05 | 1.79E+06 | 23.5 +- 9.3 |
| 4 | 4 | 36 | 18 | 0.111 | 2.21E+05 | 1.99E+06 | 26.9 +- 14.2 |
| 5 | 2 | 21 | 32 | 0.095 | 6.21E+04 | 6.52E+05 | 23.1 +- 17.1 |
| 6 | 1 | 8 | 28 | 0.125 | 4.97E+04 | 3.97E+05 | 30.3 +- 32.1 |
| 7 | 1 | 7 | 48 | 0.143 | 2.48E+04 | 1.74E+05 | 34.6 +- 37.0 |
| 8 | 8 | 55 | 16 | 0.145 | 4.97E+05 | 3.41E+06 | 35.2 +- 13.3 |
| 9 | 3 | 39 | 28 | 0.077 | 1.49E+05 | 1.94E+06 | 18.6 +- 11.2 |
| 10 | 3 | 12 | 35 | 0.250 | 8.51E+04 | 3.41E+05 | 60.4 +- 39.0 |
| 11 | 3 | 27 | 36 | 0.111 | 8.28E+04 | 7.45E+05 | 26.9 +- 16.4 |
| 12 | 17 | 95 | 35 | 0.179 | 4.32E+05 | 2.70E+06 | 43.3 +- 11.4 |
| 13 | 2 | 24 | 24 | 0.083 | 8.28E+04 | 9.93E+05 | 20.2 +- 14.9 |
| 14 | 0 | 1 | 24 | 0.000 | 0.00E+00 | 4.14E+04 | 0.0 +- 0.0 |
| 15 | 9 | 48 | 25 | 0.188 | 3.58E+05 | 1.91E+06 | 45.3 +- 16.5 |
| 16 | 0 | 5 | 10 | 0.000 | 0.00E+00 | 4.97E+05 | 0.0 +- 0.0 |
| 17 | 1 | 26 | 40 | 0.038 | 2.48E+04 | 6.46E+05 | 9.3 +- 9.5 |
| 18 | 0 | 7 | 20 | 0.000 | 0.00E+00 | 3.48E+05 | 0.0 +- 0.0 |
| 19 | 4 | 21 | 30 | 0.190 | 1.32E+05 | 6.95E+05 | 46.1 +- 25.1 |
| 20 | 3 | 26 | 25 | 0.115 | 1.19E+05 | 1.03E+06 | 27.9 +- 17.0 |
| | 71 | 569 | | | 1.331E+05 | 1.066E+06 | |

AREA OF BASIC UNIT = 1.0068E-06 CM²

VARIANCE OF SQR(NS) = 1.08102
VARIANCE OF SQR(NI) = 4.73973 CORRELATION COEFFICIENT = 0.918

CHI SQUARED = 11.1711 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.125 +- 0.016 MEAN RATIO = 0.106 +- 0.015

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 30.2 +- 3.8 MYR

MEAN AGE = 25.7 +- 3.7 MYR

# POS 10A - CANNING FM.

IRRADIATION: PT916-03
ANALYSIS BY POS 4/26/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 1 | 9 | 30 | 0.111 | 3.31E+04 | 2.98E+05 | 26.9 +- 28.4 |
| 2 | 7 | 99 | 72 | 0.071 | 9.66E+04 | 1.37E+06 | 17.1 +- 6.7 |
| 3 | 3 | 6 | 16 | 0.500 | 1.86E+05 | 3.72E+05 | 120.2 +- 85.8 |
| 4 | 16 | 57 | 42 | 0.281 | 3.78E+05 | 1.35E+06 | 67.8 +- 19.2 |
| 5 | 0 | 17 | 27 | 0.000 | 0.00E+00 | 6.25E+05 | 0.0 +- 0.0 |
| 6 | 3 | 16 | 16 | 0.188 | 1.86E+05 | 9.93E+05 | 45.3 +- 28.5 |
| 7 | 3 | 18 | 18 | 0.167 | 1.66E+05 | 9.93E+05 | 40.3 +- 25.1 |
| 8 | 10 | 45 | 14 | 0.222 | 7.09E+05 | 3.19E+06 | 53.7 +- 18.8 |
| 9 | 7 | 47 | 21 | 0.149 | 3.31E+05 | 2.22E+06 | 36.0 +- 14.6 |
| 10 | 3 | 26 | 36 | 0.115 | 8.28E+04 | 7.17E+05 | 27.9 +- 17.0 |
| 11 | 20 | 140 | 24 | 0.143 | 8.28E+05 | 5.79E+06 | 34.6 +- 8.3 |
| 12 | 3 | 36 | 12 | 0.083 | 2.48E+05 | 2.98E+06 | 20.2 +- 12.1 |
| 13 | 0 | 3 | 9 | 0.000 | 0.00E+00 | 3.31E+05 | 0.0 +- 0.0 |
| 14 | 0 | 22 | 15 | 0.000 | 0.00E+00 | 1.46E+06 | 0.0 +- 0.0 |
| 15 | 0 | 3 | 20 | 0.000 | 0.00E+00 | 1.49E+05 | 0.0 +- 0.0 |
| 16 | 13 | 62 | 30 | 0.210 | 4.30E+05 | 2.05E+06 | 50.7 +- 15.5 |
| 17 | 2 | 13 | 16 | 0.154 | 1.24E+05 | 8.07E+05 | 37.2 +- 28.3 |
| 18 | 0 | 1 | 18 | 0.000 | 0.00E+00 | 9.93E+04 | 0.0 +- 0.0 |
| 19 | 12 | 93 | 10 | 0.129 | 6.62E+05 | 5.13E+06 | 31.2 +- 9.6 |
| 20 | 2 | 4 | 35 | 0.500 | 5.68E+04 | 1.14E+05 | 120.2 +- 104.1 |
| | 105 | 717 | | | 2.168E+05 | 1.481E+06 | |

AREA OF BASIC UNIT = 1.0868E-06 CM²

VARIANCE OF SQR(NS) = 2.02342
VARIANCE OF SQR(NI) = 9.22566 CORRELATION COEFFICIENT = 0.963

CHI SQUARED = 25.8818 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.146 +- 0.015 MEAN RATIO = 0.151 +- 0.032

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 35.4 +- 3.7 MYR

MEAN AGE = 36.6 +- 7.9 MYR

# POS 148 - CANNING FM.

IRRADIATION: PT916-04
ANALYSIS BY POS 4/26/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 0 | 3 | 25 | 0.000 | 0.00E+00 | 1.40E+05 | 0.0 +- 0.0 |
| 2 | 2 | 4 | 20 | 0.500 | 8.36E+04 | 1.67E+05 | 120.2 +- 104.1 |
| 3 | 2 | 10 | 8 | 0.200 | 2.92E+05 | 1.46E+06 | 48.3 +- 37.5 |
| 4 | 3 | 13 | 40 | 0.231 | 8.77E+04 | 3.80E+05 | 55.8 +- 35.7 |
| 5 | 0 | 2 | 24 | 0.000 | 0.00E+00 | 9.75E+04 | 0.0 +- 0.0 |
| 6 | 10 | 28 | 28 | 0.357 | 5.85E+05 | 1.64E+06 | 86.1 +- 31.7 |
| 7 | 3 | 11 | 20 | 0.273 | 1.75E+05 | 6.43E+05 | 65.6 +- 42.9 |
| 8 | 9 | 39 | 24 | 0.231 | 4.39E+05 | 1.90E+06 | 55.0 +- 20.6 |
| 9 | 1 | 4 | 12 | 0.250 | 9.75E+04 | 3.90E+05 | 60.4 +- 67.5 |
| 10 | 3 | 9 | 35 | 0.333 | 1.00E+05 | 3.01E+05 | 80.4 +- 53.6 |
| 11 | 5 | 34 | 30 | 0.147 | 1.95E+05 | 1.33E+06 | 35.6 +- 17.0 |
| 12 | 0 | 5 | 20 | 0.000 | 0.00E+00 | 2.92E+05 | 0.0 +- 0.0 |
| 13 | 6 | 29 | 26 | 0.207 | 2.70E+05 | 1.30E+06 | 50.0 +- 22.4 |
| 14 | 0 | 9 | 30 | 0.000 | 0.00E+00 | 3.51E+05 | 0.0 +- 0.0 |
| 15 | 2 | 14 | 30 | 0.143 | 7.80E+04 | 5.46E+05 | 34.6 +- 26.1 |
| 16 | 11 | 61 | 40 | 0.180 | 3.22E+05 | 1.78E+06 | 43.6 +- 14.3 |
| 17 | 2 | 25 | 40 | 0.080 | 5.85E+04 | 7.31E+05 | 19.4 +- 14.2 |
| 18 | 2 | 8 | 20 | 0.250 | 8.36E+04 | 3.34E+05 | 60.4 +- 47.7 |
| 19 | 0 | 4 | 30 | 0.000 | 0.00E+00 | 1.56E+05 | 0.0 +- 0.0 |
| 20 | 1 | 5 | 14 | 0.200 | 8.36E+04 | 4.18E+05 | 48.3 +- 53.0 |
| | 62 | 317 | | | 1.384E+05 | 7.077E+05 | |

AREA OF BASIC UNIT = 0.548E-07 CM²

VARIANCE OF SQR(NS) = 1.13589
VARIANCE OF SQR(NI) = 3.10425 CORRELATION COEFFICIENT = 0.894

CHI SQUARED = 12.0365 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.196 +- 0.027 MEAN RATIO = 0.179 +- 0.031

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 47.3 +- 6.6 MYR

MEAN AGE = 43.3 +- 7.4 MYR

# POS 16A - CANNING FM.

IRRADIATION: PT916-05
ANALYSIS BY POS 4/22/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 24 | 148 | 64 | 0.162 | 4.39E+05 | 2.71E+06 | 39.2 +- 8.6 |
| 2 | 0 | 2 | 36 | 0.000 | 0.00E+00 | 6.50E+04 | 0.0 +- 0.0 |
| 3 | 2 | 21 | 28 | 0.095 | 1.17E+05 | 1.23E+06 | 23.1 +- 17.1 |
| 4 | 4 | 11 | 27 | 0.364 | 1.73E+05 | 4.77E+05 | 87.6 +- 51.2 |
| 5 | 1 | 3 | 12 | 0.333 | 9.75E+04 | 2.92E+05 | 80.4 +- 92.8 |
| 6 | 0 | 1 | 12 | 0.000 | 0.00E+00 | 9.75E+04 | 0.0 +- 0.0 |
| 7 | 1 | 1 | 4 | 1.000 | 2.92E+05 | 2.92E+05 | 238.2 +- 336.9 |
| 8 | 2 | 2 | 24 | 1.000 | 9.75E+04 | 9.75E+04 | 230.2 +- 238.2 |
| 9 | 10 | 120 | 24 | 0.083 | 4.87E+05 | 5.85E+06 | 20.2 +- 6.6 |
| 10 | 1 | 6 | 15 | 0.167 | 7.80E+04 | 4.68E+05 | 40.3 +- 43.5 |
| 11 | 1 | 10 | 30 | 0.100 | 3.90E+04 | 3.90E+05 | 24.2 +- 25.4 |
| 12 | 2 | 5 | 15 | 0.400 | 1.56E+05 | 3.90E+05 | 96.3 +- 80.6 |
| 13 | 2 | 5 | 20 | 0.400 | 1.17E+05 | 2.92E+05 | 96.3 +- 80.6 |
| 14 | 2 | 12 | 8 | 0.167 | 2.92E+05 | 1.75E+06 | 40.3 +- 30.8 |
| 15 | 1 | 1 | 16 | 1.000 | 7.31E+04 | 7.31E+04 | 238.2 +- 336.9 |
| 16 | 0 | 1 | 30 | 0.000 | 0.00E+00 | 3.90E+04 | 0.0 +- 0.0 |
| 17 | 3 | 13 | 26 | 0.231 | 1.75E+05 | 7.60E+05 | 55.8 +- 35.7 |
| 18 | 7 | 25 | 42 | 0.280 | 1.95E+05 | 6.96E+05 | 67.6 +- 28.9 |
| 19 | 1 | 5 | 16 | 0.200 | 7.31E+04 | 3.66E+05 | 48.3 +- 53.0 |
| 20 | 7 | 34 | 60 | 0.206 | 1.36E+05 | 6.63E+05 | 49.0 +- 20.7 |
| | 71 | 426 | | | 1.678E+05 | 1.807E+06 | |

AREA OF BASIC UNIT = 0.548E-07 CM²

VARIANCE OF SQR(NS) = 1.34374
VARIANCE OF SQR(NI) = 9.59981 CORRELATION COEFFICIENT = 0.927

CHI SQUARED = 21.0999 WITH 19 DEGREES OF FREEDOM PASS

NS/NI = 0.167 +- 0.021 MEAN RATIO = 0.309 +- 0.072

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 40.3 +- 5.2 MYR

MEAN AGE = 74.6 +- 17.4 MYR

# POS 228 - SAGNIRIVTOK FM.

IRRADIATION: PT916-86
ANALYSIS BY POS 4/21/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 3 | 14 | 23 | 0.214 | 1.53E+05 | 7.12E+05 | 51.6 +- 32.9 |
| 2 | 0 | 6 | 27 | 0.000 | 0.00E+00 | 2.60E+05 | 0.0 +- 0.0 |
| 3 | 2 | 2 | 12 | 1.000 | 1.95E+05 | 1.95E+05 | 238.2 +- 238.2 |
| 4 | 15 | 60 | 21 | 0.250 | 8.36E+05 | 3.34E+06 | 68.4 +- 17.4 |
| 5 | 27 | 107 | 19 | 0.252 | 1.66E+06 | 6.59E+06 | 68.5 +- 13.1 |
| 6 | 2 | 3 | 22 | 0.667 | 1.06E+05 | 1.60E+05 | 159.8 +- 145.9 |
| 7 | 6 | 27 | 21 | 0.222 | 3.34E+05 | 1.50E+06 | 53.7 +- 24.2 |
| 8 | 9 | 35 | 24 | 0.257 | 4.39E+05 | 1.71E+06 | 62.1 +- 23.2 |
| 9 | 1 | 1 | 18 | 1.000 | 1.17E+05 | 1.17E+05 | 238.2 +- 336.9 |
| 10 | 1 | 2 | 15 | 0.500 | 7.80E+04 | 1.56E+05 | 120.2 +- 147.2 |
| 11 | 3 | 20 | 7 | 0.150 | 5.01E+05 | 3.34E+06 | 36.3 +- 22.5 |
| 12 | 0 | 10 | 25 | 0.000 | 0.00E+00 | 4.68E+05 | 0.0 +- 0.0 |
| 13 | 0 | 1 | 16 | 0.000 | 0.00E+00 | 7.31E+04 | 0.0 +- 0.0 |
| 14 | 6 | 12 | 19 | 0.500 | 3.69E+05 | 7.39E+05 | 120.2 +- 68.1 |
| 15 | 4 | 8 | 6 | 0.500 | 7.80E+05 | 1.56E+06 | 120.2 +- 73.6 |
| 16 | 7 | 27 | 24 | 0.259 | 3.41E+05 | 1.32E+06 | 62.6 +- 26.6 |
| 17 | 4 | 4 | 12 | 1.000 | 3.90E+05 | 3.90E+05 | 238.2 +- 168.4 |
| 18 | 22 | 77 | 14 | 0.286 | 1.84E+06 | 6.43E+06 | 69.8 +- 16.7 |
| 19 | 15 | 29 | 12 | 0.517 | 1.46E+06 | 2.83E+06 | 124.3 +- 39.5 |
| 20 | 5 | 28 | 20 | 0.179 | 2.92E+05 | 1.64E+06 | 43.2 +- 21.0 |
| 21 | 0 | 3 | 18 | 0.000 | 0.00E+00 | 1.95E+05 | 0.0 +- 0.0 |
| | 132 | 476 | | | 4.208E+05 | 1.517E+06 | |

AREA OF BASIC UNIT = 8.548E-07 CM²

VARIANCE OF SQR(NS) = 2.25764
VARIANCE OF SQR(NI) = 6.89556 CORRELATION COEFFICIENT = 0.953

CHI SQUARED = 22.3738 WITH 20 DEGREES OF FREEDOM PASS

NS/NI = 0.277 +- 0.027 MEAN RATIO = 0.369 +- 0.071

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 66.9 +- 6.6 MYR

MEAN AGE = 89.0 +- 17.0 MYR

# POS 248 — CANNING FM.

IRRADIATION: PT916-07
ANALYSIS BY POS 4/22/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 15 | 188 | 25 | 0.150 | 7.82E+05 | 4.68E+06 | 36.3 +- 10.1 |
| 2 | 4 | 29 | 20 | 0.138 | 2.34E+05 | 1.70E+06 | 33.4 +- 17.8 |
| 3 | 19 | 184 | 54 | 0.183 | 4.12E+05 | 2.25E+06 | 44.2 +- 11.0 |
| 4 | 0 | 29 | 12 | 0.000 | 0.00E+00 | 2.83E+06 | 0.0 +- 0.0 |
| 5 | 47 | 116 | 40 | 0.405 | 1.37E+06 | 3.39E+06 | 97.6 +- 16.9 |
| 6 | 12 | 76 | 21 | 0.158 | 6.68E+05 | 4.23E+06 | 38.2 +- 11.9 |
| 7 | 1 | 1 | 16 | 1.000 | 7.31E+04 | 7.31E+04 | 238.2 +- 336.9 |
| 8 | 2 | 3 | 16 | 0.667 | 1.46E+05 | 2.19E+05 | 159.0 +- 145.9 |
| 9 | 2 | 31 | 30 | 0.065 | 7.88E+04 | 1.21E+06 | 15.6 +- 11.4 |
| 10 | 0 | 14 | 40 | 0.000 | 0.00E+00 | 4.89E+05 | 0.0 +- 0.0 |
| 11 | 0 | 1 | 24 | 0.000 | 0.00E+00 | 4.87E+04 | 0.0 +- 0.0 |
| 12 | 1 | 7 | 40 | 0.143 | 2.92E+04 | 2.05E+05 | 34.6 +- 37.8 |
| 13 | 2 | 26 | 12 | 0.077 | 1.95E+05 | 2.53E+06 | 18.6 +- 13.7 |
| 14 | 2 | 12 | 8 | 0.167 | 2.92E+05 | 1.75E+06 | 40.3 +- 30.8 |
| 15 | 2 | 62 | 18 | 0.032 | 2.34E+05 | 7.25E+06 | 7.8 +- 5.6 |
| 16 | 14 | 125 | 48 | 0.112 | 4.09E+05 | 3.66E+06 | 27.1 +- 7.6 |
| 17 | 76 | 204 | 26 | 0.373 | 3.42E+06 | 9.18E+06 | 89.8 +- 12.1 |
| 18 | 0 | 6 | 17 | 0.000 | 0.00E+00 | 4.13E+05 | 0.0 +- 0.0 |
| 19 | 11 | 53 | 42 | 0.208 | 3.86E+05 | 1.48E+06 | 50.2 +- 16.6 |
| 20 | 0 | 58 | 28 | 0.000 | 0.00E+00 | 2.42E+06 | 0.0 +- 0.0 |
| 21 | 5 | 20 | 15 | 0.250 | 3.90E+05 | 1.56E+06 | 60.4 +- 30.2 |
| 22 | 19 | 95 | 20 | 0.200 | 1.11E+06 | 5.56E+06 | 48.3 +- 12.2 |
| 23 | 1 | 36 | 40 | 0.028 | 2.92E+04 | 1.05E+06 | 6.7 +- 6.6 |
| | 235 | 1208 | | | 4.613E+05 | 2.371E+06 | |

AREA OF BASIC UNIT = 0.548E-07 CM²

VARIANCE OF SQR(NS) = 5.13174
VARIANCE OF SQR(NI) = 13.0083 CORRELATION COEFFICIENT = 0.871

CHI SQUARED = 91.3505 WITH 22 DEGREES OF FREEDOM FAIL

NS/NI = 0.195 +- 0.014 MEAN RATIO = 0.189 +- 0.050

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.376E+06 ND = 5461

POOLED AGE = 47.0 +- 3.4 MYR

MEAN AGE = 45.8 +- 12.0 MYR

# POS 35A - CANNING FM.

IRRADIATION: PT931-09
ANALYSIS BY POS 4/22/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 7 | 34 | 12 | 0.206 | 6.82E+05 | 3.31E+06 | 49.9 +- 20.7 |
| 2 | 4 | 19 | 12 | 0.211 | 3.90E+05 | 1.85E+06 | 51.1 +- 28.1 |
| 3 | 0 | 3 | 35 | 0.000 | 0.00E+00 | 1.00E+05 | 0.0 +- 0.0 |
| 4 | 1 | 3 | 12 | 0.333 | 9.75E+04 | 2.92E+05 | 80.7 +- 93.2 |
| 5 | 1 | 5 | 20 | 0.200 | 5.85E+04 | 2.92E+05 | 48.5 +- 53.2 |
| 6 | 7 | 29 | 27 | 0.241 | 3.03E+05 | 1.26E+06 | 58.5 +- 24.6 |
| 7 | 0 | 15 | 36 | 0.000 | 0.00E+00 | 4.87E+05 | 0.0 +- 0.0 |
| 8 | 0 | 10 | 28 | 0.000 | 0.00E+00 | 4.18E+05 | 0.0 +- 0.0 |
| 9 | 0 | 9 | 48 | 0.000 | 0.00E+00 | 2.63E+05 | 0.0 +- 0.0 |
| 10 | 14 | 109 | 30 | 0.128 | 5.46E+05 | 4.25E+06 | 31.2 +- 8.9 |
| 11 | 1 | 12 | 15 | 0.083 | 7.80E+04 | 9.36E+05 | 20.3 +- 21.1 |
| 12 | 17 | 52 | 18 | 0.327 | 1.10E+06 | 3.38E+06 | 79.1 +- 22.1 |
| 13 | 3 | 8 | 16 | 0.375 | 2.19E+05 | 5.85E+05 | 90.7 +- 61.4 |
| 14 | 16 | 67 | 58 | 0.239 | 3.74E+05 | 1.57E+06 | 57.9 +- 16.1 |
| 15 | 6 | 20 | 8 | 0.300 | 8.77E+05 | 2.92E+06 | 72.7 +- 33.8 |
| 16 | 1 | 18 | 24 | 0.100 | 4.87E+04 | 4.87E+05 | 24.3 +- 25.5 |
| 17 | 0 | 1 | 24 | 0.000 | 0.00E+00 | 4.87E+04 | 0.0 +- 0.0 |
| 18 | 0 | 5 | 15 | 0.000 | 0.00E+00 | 3.90E+05 | 0.0 +- 0.0 |
| 19 | 1 | 5 | 15 | 0.200 | 7.80E+04 | 3.90E+05 | 48.5 +- 53.2 |
| 20 | 6 | 31 | 24 | 0.194 | 2.92E+05 | 1.51E+06 | 47.0 +- 20.9 |
| 21 | 11 | 40 | 15 | 0.275 | 8.58E+05 | 3.12E+06 | 66.6 +- 22.7 |
| 22 | 0 | 7 | 12 | 0.000 | 0.00E+00 | 6.82E+05 | 0.0 +- 0.0 |
| 23 | 25 | 124 | 24 | 0.202 | 1.22E+06 | 6.04E+06 | 48.9 +- 10.7 |
| 24 | 0 | 6 | 12 | 0.000 | 0.00E+00 | 5.85E+05 | 0.0 +- 0.0 |
| 25 | 1 | 8 | 12 | 0.125 | 9.75E+04 | 7.80E+05 | 30.4 +- 32.2 |
| | 122 | 632 | | | 2.663E+05 | 1.379E+06 | |

AREA OF BASIC UNIT = 8.548E-07 CM²

VARIANCE OF SQR(NS) = 2.40279
VARIANCE OF SQR(NI) = 7.0737 CORRELATION COEFFICIENT = 0.928

CHI SQUARED = 21.997 WITH 24 DEGREES OF FREEDOM PASS

NS/NI = 0.193 +- 0.019 MEAN RATIO = 0.150 +- 0.025

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.381E+06 ND = 5480

POOLED AGE = 46.8 +- 4.7 MYR

MEAN AGE = 36.3 +- 6.1 MYR

# JD 03B - KEMICK FM.

IRRADIATION: PT930-04
ANALYSIS BY POS 4/21/88

| CRYSTAL | NS | NI | AREA UNITS | RATIO | RHO S | RHO I | AGE(MYR) |
|---|---|---|---|---|---|---|---|
| 1 | 43 | 174 | 40 | 0.247 | 1.26E+06 | 5.09E+06 | 62.9 +- 18.7 |
| 2 | 5 | 83 | 28 | 0.060 | 2.09E+05 | 3.47E+06 | 15.4 +- 7.1 |
| 3 | 13 | 48 | 50 | 0.271 | 3.04E+05 | 1.12E+06 | 68.9 +- 21.5 |
| 4 | 2 | 20 | 9 | 0.100 | 2.60E+05 | 2.60E+06 | 25.5 +- 18.9 |
| 5 | 0 | 30 | 6 | 0.000 | 0.00E+00 | 4.39E+06 | 0.0 +- 0.0 |
| 6 | 3 | 21 | 28 | 0.143 | 1.25E+05 | 8.77E+05 | 36.4 +- 22.5 |
| 7 | 1 | 19 | 9 | 0.053 | 1.30E+05 | 2.47E+06 | 13.4 +- 13.8 |
| 8 | 2 | 41 | 18 | 0.049 | 1.30E+05 | 2.66E+06 | 12.3 +- 9.0 |
| 9 | 1 | 16 | 24 | 0.063 | 4.67E+04 | 7.00E+05 | 16.0 +- 16.5 |
| 10 | 2 | 9 | 12 | 0.222 | 1.95E+05 | 8.77E+05 | 56.6 +- 44.2 |
| 11 | 0 | 16 | 8 | 0.000 | 0.00E+00 | 2.34E+06 | 0.0 +- 0.0 |
| 12 | 1 | 19 | 15 | 0.053 | 7.80E+04 | 1.48E+06 | 13.4 +- 13.8 |
| 13 | 3 | 16 | 10 | 0.188 | 3.51E+05 | 1.87E+06 | 47.8 +- 30.1 |
| 14 | 10 | 39 | 10 | 0.256 | 1.17E+06 | 4.56E+06 | 65.2 +- 23.1 |
| 15 | 7 | 55 | 24 | 0.127 | 3.41E+05 | 2.68E+06 | 32.5 +- 13.0 |
| 16 | 19 | 106 | 25 | 0.179 | 8.09E+05 | 4.96E+06 | 45.7 +- 11.4 |
| | 112 | 712 | | | 4.120E+05 | 2.619E+06 | |

AREA OF BASIC UNIT = 0.540E-07 CM²

VARIANCE OF SQR(NS) = 2.85386
VARIANCE OF SQR(NI) = 7.58119 CORRELATION COEFFICIENT = 0.924

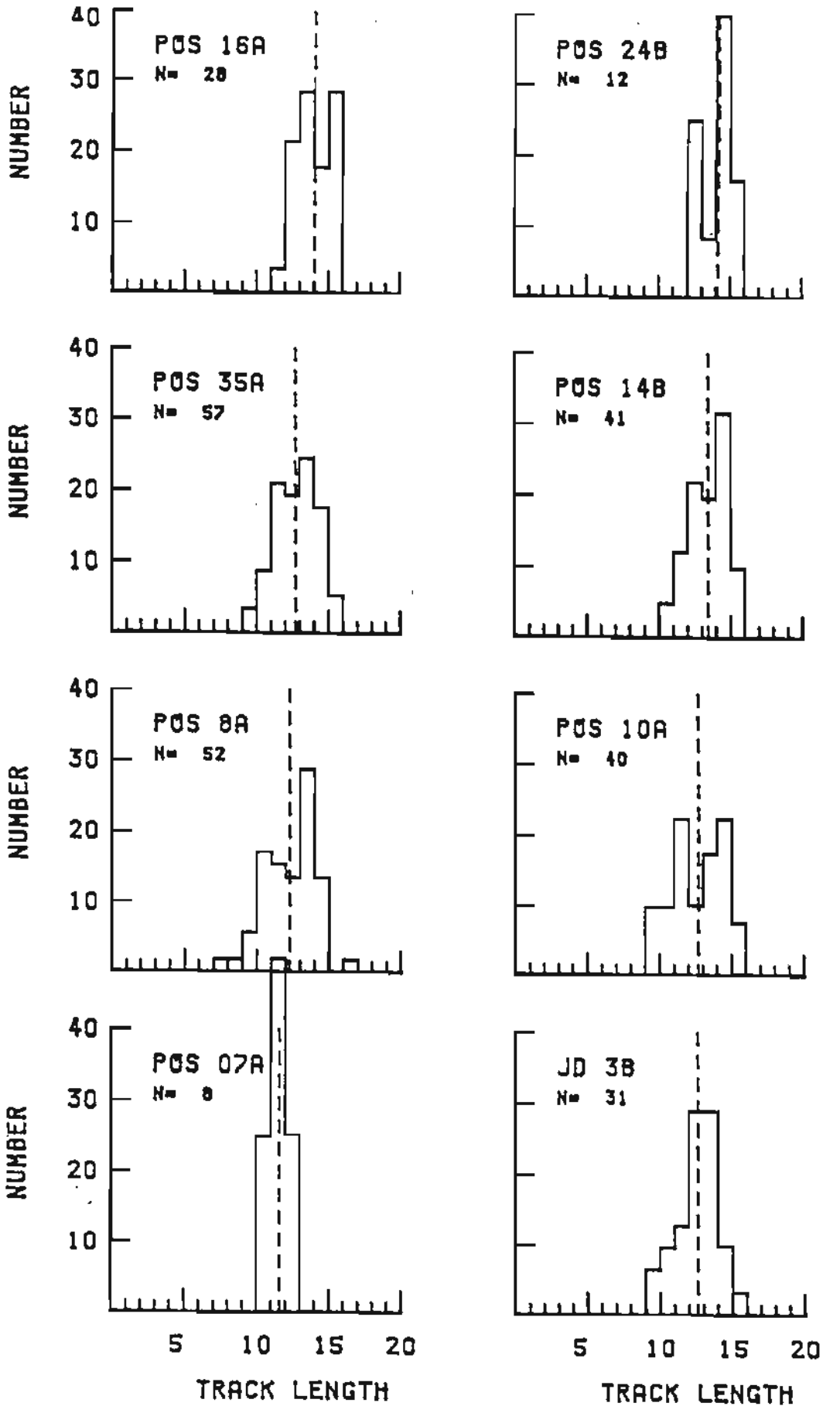
CHI SQUARED = 31.6494 WITH 15 DEGREES OF FREEDOM FAIL

NS/NI = 0.157 +- 0.016 MEAN RATIO = 0.126 +- 0.023

AGE CALCULATED USING A ZETA OF 352.7 FOR SRM612 GLASS
RHO D = 1.45E+06 ND = 5755

POOLED AGE = 40.1 +- 4.1 MYR

MEAN AGE = 32.0 +- 5.9 MYR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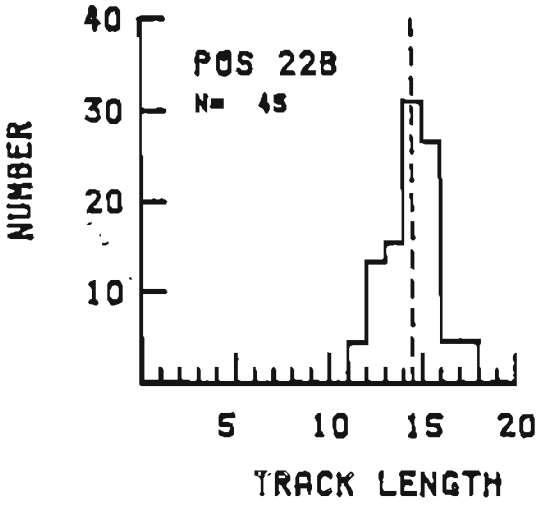
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