

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 15/6/98 UWA Mount No. 96-61 Whose sample? McN Operator(s) McN + JD

Indicate any change to the following: ²⁰⁰196 204 bkg 206 207 208 ²³⁴238 248 ~~254~~ 270

Precambrian Count time (secs): 25 10 10 10 30/40* 10 5 5 5

Phanerozoic* Delay time (secs): 78 3 1 2 1 1 2 4 2

expected ²⁰⁰196-204 = ^{4.140}8.170 amu expected 204-bkg = ⁵0.040 amu Dead-time = 32 nanosecs


actual 196-204 = 4.134 actual 204-bkg = 0.045 expected resolution = >4200

actual 206-207 = 0.999 actual 206-208 = 1.999 actual resolution = 5041

Primary = 3.8 nA PESABM = 95 pA actual Primary : PESABM (= 50:1) = 40

Raster time (mins): 1 Raster aperture (microns): 100 No. of scans: 6

Comments: A = 18/1 → analysed on 6/4/98 but 207 peak out of posn!

NB: 200 = left hand peak!  THIS ONE = CAT:O !!

* Do not know why 200 cps is so low! May be due to dodgy area on mount (altho' 10 stable + same as other areas).

| Rejection over-ride | Sample/Std ID | Time - printout | ^{270/254} UO/UO | ²⁰⁰ 196 cps | 206 cps | UO ₂ ppm Kcps | 204Pb ppb | f ₂₀₆ % | Age ±1σ (Ma) | 206/238 / 254 | 207/206 | 200-204 Corr. 206-207 206-208 |
|---------------------|---|-----------------|--------------------------|------------------------|---------|--------------------------|-----------|--------------------|--------------|---------------|---------|-------------------------------|
| | kh. 1-1 | 11:22 | 0.884 | 1294 | 2991 | 19.8 | 19.5 | .52 | 0.1325 | 515 ± 29 | | 4.134 0.999 1.999 |
| | kh. 1-2 | 11:41 | 0.907 | 1314 | 3004 | 200 | 19.8 | .53 | 0.1363 | 515 ± 30 | | - " - |
| | A. 30-1 | | | | | | | | | | | |
| | kh. 1-3 | 12:11 | 0.914 | 1482 | 3150 | 20.4 | 15.6 | .42 | 0.1409 | 536 ± 26 | | - " - |
| | A. 30-1 | 12:30 | 0.471 | 2.0 | 262 | .3 | 110.4 | 2.34 | 0.3845 | 2592 ± 47 | | - " - |
| | Checked peak positions!! → all seem OK! (after adjustments) | | | | | | | | | | | |
| | kh. 1-4 | 14:08 | 0.932 | 1384 | 3035 | 20.4 | 21.9 | .59 | 0.1388 | 490 ± 29 | | 4.135 0.999 1.999 |
| | A. 8-2 | 14:27 | 0.627 | 25.1 | 741 | .96 | 61.2 | 1.26 | 0.7687 | 2770 ± 19 | | - " - |
| | A. 9-2 | 14:49 | 0.467 | 2.2 | 245 | .34 | 58.4 | 1.21 | .3394 | 2730 ± 40 | | - " - |
| | kh. 1-5 | 15:09 | 0.938 | 1447 | 2994 | 19.7 | 14.6 | .39 | .1423 | 556 ± 26 | | 4.129 0.999 1.999 |

Handwritten scribbles and arrows on the left side of the table.

Ran peak centre on kh →

204 WRONG ?

Check 200-204 offset

| Rejection over-ride | Sample/ Std ID | Time - printout | UO/UO ₂ (270/254) | ²⁰⁰ Pb cps | 206 cps | UO ₂ ppm cps | ²⁰⁴ Pb ppb | f ²⁰⁶ % | Age ± 1σ (206/238) (254) | Age ± 1σ (Ma) 207/206 | 200-204 Corr. 206-207 207-208 |
|---------------------|-------------------|-----------------|------------------------------|-----------------------|---------|-------------------------|-----------------------|--------------------|--------------------------|-----------------------|-------------------------------|
| | A.31-1 | 15:38 | 0.929 | 1730 | 1197 | 1303 | 104.4 | 2.19 | 0.853 | 2661 ± 21 | 4.129 0.999 1.999 |
| | A.32-1 | 16:06 | 0.905 | 1632 | 1315 | 1480 | 86.4 | 1.81 | 0.803 | 2655 ± 18 | 4.140 0.999 1.999 |
| | Kh.1-6 | 16:25 | .908 | 1349 | 3097 | 20.7 | 23.8 | .64 | .1360 | 475 ± 30 | " |
| | A.33-1 | 16:44 | .950 | 1794 | 1853 | 2060 | 56.2 | 1.18 | .8100 | 2663 ± 13 | 4.140 0.999 1.999 |
| | A.34-1 | 17:09 | .954 | 1830 | 1270 | 1334 | 77.0 | 1.62 | .951 | 2645 ± 19 | " |
| | A.35-1 | 17:28 | .945 | 1874 | 2081 | 2277 | 88.3 | 1.85 | .914 | 2662 ± 14 | " |
| | Kh.1-7 | 17:48 | .909 | 1386 | 2906 | 19.3 | 22.1 | .59 | .1502 | 480 ± 32 | " |
| | A.36-2 | 18:07 | <u>.612</u> | 692 | 982 | 866 | 83.7 | 1.75 | <u>1.134</u> | 2697 ± 20 | " |
| | A.36-1 | 18:26 | .919 | 1593 | 1334 | 1498 | 61.1 | 1.28 | .891 | 2689 ± 16 | " |
| | A.37-1 | 18:45 | <u>.762</u> | 436 | 6651 | 7426 | 28.4 | .60 | .896 | 2619 ± 7 | " |
| | Kh.1-8 | 19:04 | .919 | 1264 | 2931 | 19.8 | 23.8 | .64 | .1483 | 468 ± 32 | " |
| | A.38-1 | 19:23 | .926 | 1743 | 1759 | 1876 | 164.5 | 3.44 | .938 | 2671 ± 21 | " |
| | A.39-1 | 19:40 | .931 | 1931 | 1936 | 2093 | 75.4 | 1.58 | .945 | 2662 ± 14 | " |
| | A.40-1 | 20:03 | .943 | 1579 | 950 | 1059 | 99.2 | 2.08 | .897 | 2659 ± 23 | " |
| | Kh.1-9 | 20:23 | .899 | 1251 | 2882 | 19.3 | 18.0 | .48 | .1494 | 518 ± 28 | " |

204 WRONG? →
changed 200-204 →

21-2
? consistent low cts.

? inconsistent

1st 20