

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 12/9/97 UWA Mount No.: 97-24 Whose sample?: A
E AGSO
YUMIN Operator(s): McN + Salah

Indicate any change to the following: 196 204 bkg 206 207 208 238 248 254

Precambrian Count time (secs): 2 10 10 10 30/40* 10 5 5 2
Phanerozoic* Delay time (secs): 78 3 1 2 1 1 3 2 2

expected 196-204 = 8.170 amu expected 204-bkg = 0.040 amu Dead-time = 32 nanosecs

actual 196-204 = 8.170 actual 204-bkg = 0.040 expected resolution = >4200

actual 206-207 = 1.000 actual 206-208 = 2.001 actual resolution = 4875

Primary = 3.6 nA PESABM = 46 pA actual Primary : PESABM (= 50:1) = 78

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

Comments: A = 9796 9104 → 1/12/97 Std. n = 13 of 14 (del. sl 3-6)
E = 95XQ 100 m = 2, s = 1.02%

* KV turned off for sample change.

| Rejection over-ride | Sample/Std ID | Time - printout | UO/U | 196 k cps | 206 cps | U ppm | 204Pb ppb | f206 % | Age ±1σ (Ma) 206/238 | 207/206 | Corr. |
|---------------------|---------------|-----------------|------|-----------|---------|-------|-----------|--------|----------------------|---------|-------|
|---------------------|---------------|-----------------|------|-----------|---------|-------|-----------|--------|----------------------|---------|-------|

| | | | | | | | | | | | |
|-------------------------------|----------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------|------------------|------------|
| | <u>sl. 4-1</u> | <u>10:09</u> | <u>5.90</u> | <u>16.3</u> | <u>1896</u> | <u>220</u> | <u>1.3</u> | <u>.12</u> | <u>571 ± 1</u> | <u>519 ± 26</u> | <u>204</u> |
| <u>Delete 4-2</u> → | <u>sl. 4-2</u> | <u>10:42</u> | <u>5.83</u> | <u>16.6</u> | <u>1809</u> | <u>221</u> | <u>0.5</u> | <u>.04</u> | <u>554 ± 0.6</u> | <u>588 ± 21</u> | <u>204</u> |
| | <u>sl. 4-3</u> | <u>11:00</u> | <u>6.03</u> | <u>15.8</u> | <u>1887</u> | <u>210</u> | <u>-0.2</u> | <u>-</u> | <u>573 ± 1</u> | <u>584 ± 17</u> | <u>-</u> |
| <u>could delete last scan</u> | <u>A. 11-1</u> | <u>11:20</u> | <u>6.77</u> | <u>13.8</u> | <u>2251</u> | <u>72.3</u> | <u>31.9</u> | <u>2.33</u> | <u>1443 ± 5</u> | <u>2735 ± 13</u> | <u>204</u> |
| | <u>A. 12-1</u> | <u>11:37</u> | <u>6.08</u> | <u>16.2</u> | <u>2132</u> | <u>40.6</u> | <u>0.7</u> | <u>0.46</u> | <u>2684 ± 11</u> | <u>2689 ± 9</u> | <u>204</u> |
| | <u>sl. 4-4</u> | <u>11:54</u> | <u>5.93</u> | <u>16.3</u> | <u>1916</u> | <u>216</u> | <u>-0.7</u> | <u>-</u> | <u>577 ± 1</u> | <u>538 ± 17</u> | <u>-</u> |
| | <u>A. 13-1</u> | <u>12:13</u> | <u>5.84</u> | <u>16.3</u> | <u>953</u> | <u>20.9</u> | <u>1.5</u> | <u>.20</u> | <u>2655 ± 17</u> | <u>2671 ± 16</u> | <u>204</u> |
| | <u>A. 13-2</u> | <u>12:30</u> | <u>5.82</u> | <u>16.6</u> | <u>1902</u> | <u>41.3</u> | <u>1.5</u> | <u>.10</u> | <u>2651 ± 12</u> | <u>2672 ± 9</u> | <u>"</u> |
| | <u>A. 14-1</u> | <u>12:47</u> | <u>5.85</u> | <u>17.0</u> | <u>1869</u> | <u>39.0</u> | <u>1.9</u> | <u>.13</u> | <u>2653 ± 12</u> | <u>2686 ± 10</u> | <u>"</u> |
| <u>Delete?</u> | <u>A. 15-1</u> | <u>13:04</u> | <u>8.53</u> | <u>17.1</u> | <u>730</u> | <u>22.7</u> | <u>2.1</u> | <u>1.10</u> | <u>689 ± 3</u> | <u>2716 ± 23</u> | <u>"</u> |
| | <u>sl. 3-1</u> | <u>13:21</u> | <u>5.99</u> | <u>16.1</u> | <u>1937</u> | <u>217</u> | <u>0.1</u> | <u>.03</u> | <u>568 ± 1</u> | <u>592 ± 18</u> | <u>208</u> |

(+) $1^\circ \text{a} \sim 3.0 \text{ nA} \rightarrow$ needed to adjust Dno!

Mount/sample No: 97-24 Date: 12/9/97 Page No: 2

Rejection over-ride Sample/Std ID Time - printout UO/U 196 Kcps 206 cps U ppm ^{204}Pb ppb f_{206} % Age $\pm 1\sigma$ (Ma) 206/238 207/206 Corr.

| Rejection over-ride | Sample/Std ID | Time - printout | UO/U | 196 Kcps | 206 cps | U ppm | ^{204}Pb ppb | f_{206} % | Age $\pm 1\sigma$ (Ma) 206/238 | 207/206 | Corr. | |
|---------------------|---------------|-----------------|-------|----------|---------|--------------------|-----------------------|-------------|--------------------------------|---------------|-------------------------|-----|
| | A.16-1 | 13:39 | 5.87 | 18.5 | 1006 | 18.6 | 1.0 | .14 | 2694 \pm 17 | 2659 \pm 13 | 204 | |
| | A.17-1 | 14:03 | 6.13 | 11.8 | 3.6K | 118 | 107 | 3.15 | 2114 \pm 7 | 2535 \pm 15 | " | |
| | A.18-1 | 14:19 | 5.68 | 17.8 | 2.2K | 533 | 2.9 | .15 | 2501 \pm 10 | 2690 \pm 9 | " | |
| | A.18-2 | 14:35 | 5.86 | 19.2 | 3.2K | 77.4 | 16.9 | .78 | 2069 \pm 6 | 2683 \pm 9 | " | |
| | sl. 3-2 | 14:52 | 5.79 | 19.4 | 2062 | 208 | 0.1 | .01 | 588 \pm 1 | 580 \pm 17 | " | |
| | A.19-1 | 15:10 | 5.93 | 15.3 | 5.2K | 121 | 37.2 | .88 | 2495 \pm 7 | 2662 \pm 7 | " | |
| | A.20-1 | 15:32 | 5.94 | 18.2 | 3.1K | 74.5 | 0.3 | .02 | 2775 \pm 10 | 2678 \pm 8 | " | |
| | A.21-1 | 15:52 | 5.94 | 12.5 | 1.1K | 27 | 0.6 | .05 | 2906 \pm 18 | 2696 \pm 12 | " | |
| | A.22-1 | 16:13 | 5.59 | 17.6 | 4.3K | 122.1 | 7.7 | .02 | 2713 \pm 8 | 2681 \pm 6 | " | |
| | sl. 3-3 | 16:30 | 5.76 | 18.9 | 2.0K | 295 220 | 0.2 | .01 | 583 \pm 1 | 544 \pm 17 | 208 | |
| | E.1-1 | 16:56 | 5.81 | 18.8 | 3.9K | 181 | 0.2 | .01 | 1225 \pm 2 | 1219 \pm 10 | 204 | |
| | E.2-1 | 17:20 | 5.53 | 19.9 | 0.46K | 30 | 1.4 | .05 | 1014 \pm 5 | 1139 \pm 71 | 204 | |
| | E.3-1 | 17:40 | 5.40 | 20.6 | 0.49 | 28 | 0.2 | .06 | 1189 \pm 6 | 1232 \pm 52 | 204 | |
| | 3.6 | SL 3-4 | | | | | | | | | | |
| | 2.5 | SL 3-5 | | | | | | | | | | |
| | 3.0 | SL 3-6 | 20:26 | 6.30 | 12.6 | 1.6K | 191 | -0.4 | 587 \pm 1 | 569 \pm 18 | | |
| | 4.0 | SL 3-7 | 20:45 | 6.24 | 16.0 | 2.0K | 197 | 0.1 | .01 | 565 \pm | 556 \pm | 204 |
| | 3.0 | sl. 3-8 | 22:38 | 5.92 | 13.5 | 1.5K | 215 | 1.5 | .01 | 553 \pm 1 | 593 \pm 27 | 204 |
| | 2.8 | E.4-1 | 22:56 | 4.14 | 11.2 | 0.39 | 108 | 17 | .89 | 1629 \pm 13 | 1262 \pm 91 | 204 |
| | 2.95 | E.5-1 | 23:13 | 6.35 | 12.5 | 3.5K | 187 | 0.0 | 1209 \pm 2 | 1220 \pm 10 | No common Pb correction | |
| | 2.95 | SL.3-9 | 23:30 | 6.00 | 13.2 | 1.5K | 209 | 1.3 | .11 | 561 \pm 1 | 514 \pm 40 | 204 |
| | 2.95 | E.6-1 | 23:47 | 6.17 | 12.3 | 2254 | 137 | 2.3 | .14 | 1192 \pm 3 | 1191 \pm 15 | " |
| | 2.8 | E.7-1 | 00:06 | 5.14 | 11.5 | 682 | 73.5 | 1.3 | .12 | 1366 \pm 7 | 1227 \pm 50 | " |
| | 2.95 | sl. 3-10 | 00:22 | 6.17 | 13.1 | 1607 | 201 | 1.9 | .18 | 570 \pm 1 | 479 \pm 33 | " |

1° jumped to 4.0 nA
 remained at 4.0 nA
 (+)
 A 196.226
 E 196.248
 4.0 nA 196.279

NO DATA WAS TAKEN

206 238 254
 279

196 238 248
 254

206 238 248
 254

196 238 248
 254

206 248

⊗⊗ spot partly on epoxy \rightarrow lower 1° & cps

see previous page

Rejection over-ride Sample/Std ID Time - printout UO/U 196 K cps 206 cps U ppm ²⁰⁴Pb ppb f²⁰⁶ % Age ±1σ (Ma) 206/238 207/206 Corr.

| Rejection over-ride | Sample/Std ID | Time - printout | UO/U | 196 K cps | 206 cps | U ppm | ²⁰⁴ Pb ppb | f ²⁰⁶ % | Age ±1σ (Ma) | 206/238 | 207/206 | Corr. |
|---------------------|---------------|-----------------|------|-----------|---------|-------|-----------------------|--------------------|--------------|-----------|---------|-------|
| 206 238 248 | E. 8-1 | 00:40 | 5.82 | 11.0 | 1437 | 121 | 2.3 | .15 | 1163 ± 3 | 1183 ± 21 | 204 | |
| 295 | E. 9-1 | 00:59 | 6.27 | 11.2 | 1521 | 96.3 | -0.2 | — | 1187 ± 3 | 1249 ± 15 | — | |
| 238 254 256 | sl. 5-1 | 01:16 | 6.27 | 12.8 | 1644 | 198 | .02 | .02 | 577 ± ? | 532 ± ? | 204 | |
| 238 254 | E. 10-1 | 01:33 | 6.08 | 13.0 | 3712 | 224 | 0.8 | .63 | 1192 ± 2 | 1219 ± 10 | " | |
| 238 254 | E. 11-1 | 01:50 | 6.29 | 12.6 | 5.2K | 283 | 1.9 | .05 | 1224 ± 2 | 1207 ± 9 | " | |
| 238 254 | E. 10-2 | 02:10 | 6.37 | 11.8 | 4.9K | 298 | 2.4 | .07 | 1113 ± 2 | 1186 ± 10 | " | |
| 248 | sl. 5-2 | 02:27 | 6.14 | 12.8 | 1542 | 205 | -0.5 | .02 | 558 ± 1 | 575 ± 20 | 208 | |

n = 13
σ = 1.0 u

as of 100
238/196 = 1.72920
206/196 = 6.10065
204/196 = 0.20363
σ = 8

σ = 2.56%
0.84%

238/196 = 1.71686
206/196 = 6.10447
204/196 = 0.20363
n = 5
1σ = 0.24%