

UWA SHRIMP LOG SHEET

Date 2/5/05 **UWA mount no(s)** 05-26 **Mineral(s)** Zircon **Whose sample?** MB **Operator(s)** MB

Notes: Masses in **bold** = peak centred; others = offset from lower mass centred peak (see offsets below).

| | | | | | | | | | | | |
|----------------------------|------------|------------|-------|-----------------|------------|-------|------------|------------|------------|------------|------------|
| Zircon/Badd. | 196 | 204 | 204.1 | 206 (30) | 207 (40) | 208 | 238 | 248 | 254 | | |
| Count time (secs) | 2 | 10 | 10 | 10/20 | 30/10 | 10 | 5 | 5 | 2 | | |
| Delay time (secs) | 8 | 3 | 1 | 4 | 2 | 1 | 3 | 2 | 2 | | |
| Centring (secs) | 3 | - | - | 3 | - | - | 3 | 3 | 2 | | |
| Titanite/Perovskite | 200 | 204 | 204.1 | 206 | 207 | 208 | 248 | 254 | 270 | | |
| Count time (secs) | 2 | 10 | 10 | 10/20 | 30/10 | 10 | 5 | 5 | 7 | | |
| Delay time (secs) | 8 | 3 | 1 | 4 | 2 | 1 | 4 | 2 | 3 | | |
| Centring (secs) | 3 | - | - | 4 | - | - | 4 | 3 | 3 | | |
| Monazite (SHB) | 202 | 203 | 204 | 204.1 | 206 | 207 | 208 | 232 | 254 | 264 | 270 |
| Count time (secs) | 2 | 2 | 10 | 10 | 10/20 | 30/10 | 5 | 5 | 2 | 2 | 2 |
| Delay time (secs) | 8 | 1 | 1 | 1 | 4 | 2 | 2 | 4 | 3 | 3 | 2 |
| Centring (secs) | 1 | 2 | - | - | 4 | - | 2 | 2 | 2 | 2 | 2 |
| Cup in/out (SHA) out | | | | | | | | in | out | in | |
| Xenotime (SHB) | 194 | (196) | 204 | 204.1 | 206 | 207 | 208 | 238 | 248 | 254 | |
| Count time (secs) | 2 | (5) | 10 | 10 | 10/20 | 30/10 | 5 | 5 | 5 | 2 | |
| Delay time (secs) | 8 | (2) | 3 | 1 | 4 | 2 | 1 | 3 | 2 | 2 | |
| Centring (secs) | 1 | - | - | - | 4 | - | - | 4 | 3 | 2 | |

MASS OFFSETS (record setup offsets for session, and check them after each analysis).

Note: Setup offsets are different for SHRIMP A and B: i.e. 206-207 = 1.001 for A and 1.005 for B.

| | | | | | | |
|--------------------------|-----------|-----------|-----------|----------|---------|----------|
| Zircon/Badd. | 196-204 | 204-204.1 | 204-206 | 206-207 | 206-208 | |
| Expected offsets: | 8.170 | 0.045 | ~2.001/9 | 1.001/5 | 2.001/9 | |
| Setup offsets: | 8.164 | 0.045 | 2.01 | 1.006 | 2.009 | |
| Titanite/Perovsk. | 200-204 | 204-204.1 | 204-206 | 206-207 | 206-208 | |
| Expected offsets: | 4.136 | 0.045 | ~2.001/9 | 1.001/5 | 2.001/9 | |
| Setup offsets: | | | | | | |
| Monazite (SHB) | 202-203 | 203-204 | 204-204.1 | 204-206 | 206-207 | 206-208 |
| Expected offsets: | ~1.000 | 1.110 | 0.045 | ~2.001/9 | 1.001/5 | ~2.001/9 |
| Setup offsets: | | | | | | |
| Xenotime (SHB) | (194-196) | 194-204 | 204-204.1 | 204-206 | 206-207 | 206-208 |
| Expected offsets: | 1.998 | 10.143 | 0.045 | ~2.001/9 | 1.001/5 | 2.001/9 |
| Setup offsets: | | | | | | |

Deadtime 25 ns **Kohler aperture** 30 μm **Retard** - volts **Resoln** 6076

Primary on Steel: O⁻ bits & nA O₂⁻ bits & nA

Primary O₂⁻ on: epoxy = 0.22 nA; standard = 0.29 nA; **PESABM on std** = pA

Raster: Time (mins): 2.0 Aperture: 70 No. of scans: 65

Useful information

CZ3 = 564 Ma & 551 ppm U
 Temora 2 = 417 Ma & ~130 ppm U
 Khan = 518Ma & 700 ppm U
 SDA : 7/6 age = 3578+/-4 Ma

Comments:

Note: Bold = constant for stds & unknowns.....check after each analysis; also check offsets.

| Sample/ Std ID | Time on printout | UO/U 254/238 | 196 (zr) Kcps | 206 cps | U ppm | f ₂₀₆ % | Sensit. | Age+/-1σ (Ma) 206/238 | 207/206 | Offsets OK? |
|-------------------|---------------------|---------------------------|--|------------|--------------------|-----------------------|----------------------------|-------------------------------|---------|---------------------------|
| Alternative | | UO2/UO 270/254 | 194 (xt) 200 (tnt) 203 (mz) | 206 cps | 254 270 Kcps | 204 cps | 196/194 264 Kcps | 206/238 206/254 206/270 | 207/206 | Check after each!!! |
| CZ3.1-1 | 11:48 | 6.73 | 3042 | 6753 | 551 | (-) | 21.8 | 564±9 | 615±42 | ✓ |
| CZ3.1-2 | 12:09 | 6.61 | 3035 | 6632 | 523 | 0.46 | 19.4 | 569±9 | 540±97 | ✓ |
| 959.5-1 | 12:41 | 6.48 | 3070 | 34052 | 550 | 1.98 | 13.1 | 2690±162 | 2770±70 | ✓ |
| 959.12a-1 | 13:05 | 6.65 | 7079 | 9621 | 140 | 0.16 | 18.9 | 2795±84 | 2821±20 | ✓ |
| 959.12b-1 | 13:27 | 6.30 | 3323 | 10884 | 150 | 0.17 | 19.4 | 2836±100 | 2818±25 | ✓ |
| CZ7.1-3 | 13:49 | 6.57 | 3204 | 6823 | 557 | 0.15 | 20.6 | 546±9 | 543±108 | ✓ |
| 959.13-1 | 14:13 | 6.65 | 3176 | 64935 | 809 | 0.1 | 19.0 | 2900±52 | 2805±25 | ✓ |
| 959.17-1 | 14:36 | 6.28 | 3417 | 10939 | 158 | 0.17 | 20.1 | 2835±64 | 2773±27 | ✓ |
| 959.18-1 | 14:58 | 6.56 | 3291 | 6818 | 92.5 | (-) | 19.5 | 2851±93 | 2828±21 | ✓ |
| 959.22-1 | 15:20 | 6.55 | 3430 | 13784 | 180 | (-) | 20.1 | 2786±76 | 2814±21 | ✓ |
| 959.24-1 | 15:42 | 6.31 | 3463 | 6248 | 84 | 0.2 | 19.5 | 2889±94 | 2849±27 | ✓ |
| CZ3.1-4 | 16:09 | 6.65 | 3421 | 7410 | 551 | 0.09 | 20.4 | 558±9 | 589±84 | ✓ |
| 959.26-1 | 16:31 | 6.52 | 3380 | 21210 | 314 | 0.04 | 20.0 | 2762±50 | 2805±13 | ✓ |
| 959.29-1 | 16:55 | 6.60 | 3320 | 17571 | 294 | 0.15 | 18.8 | 2773±71 | 2823±16 | ✓ |
| 959.33-1 | 17:20 | 6.36 | 3516 | 21173 | 311 | 0.16 | 19.2 | 2644±60 | 2755±11 | ✓ |
| 959.32-1 | 17:43 | 6.59 | 3154 | 12101 | 159 | (-) | 19.5 | 2837±83 | 2825±16 | ✓ |
| 959.38-1 | 18:08 | 6.46 | 3587 | 17018 | 174 | 0.1 | 19.4 | 2772±57 | 2821±22 | ✓ |
| CZ3.1-5 | 18:29 | 6.64 | 3642 | 7166 | 535 | 0.11 | 20.9 | 578±9 | 591±73 | ✓ |
| 959.49-1 | 18:52 | 6.51 | 3517 | 27621 | 377 | (-) | 19.9 | 2810±64 | 2862±21 | ✓ |
| 959.50-1 | 19:14 | 7.00 | 3514 | 10992 | 136 | 0.01 | 22.5 | 2718±85 | 2790±22 | ✓ |
| 959.54-1 | 19:36 | 6.31 | 3603 | 20158 | 279 | 0 | 20.2 2866±50 | 2866±50 2804±10 | 2804±10 | ✓ |

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|-------------------|---------------------|-------------------|-----------------------------------|------------|--------------------|-----------------------|--|-------------------------------|---------|---------------------------|
| Alternative | | UO2/UO 270/254 | 194 (xt) 200 (tnt) 203 (mz) | 206 cps | 254 270 Kcps | 204 cps | 196/194 264 Kcps | 206/238 206/254 206/270 | 207/206 | Check after each!!! |
| 959.57-1 | 19:58 | 6.25 | 3522 | 24229 | 234 | 0.03 | 18.8 | 2826±89 | 2836±63 | ✓ |
| 959.58a-1 | 20:21 | 6.17 | 3605 | 25275 | 362 | 0.11 | 20.1 | 2794±38 | 2838±11 | ✓ |
| C23.1-6 | 20:42 | 6.57 | 3723 | 7125 | 540 | 0.37 | 21.5 | 554±9 | 489±93 | ✓ |
| 959.586-1 | 21:04 | 6.70 | 3417 | 6653 | 96 | (-) | ^{18.5} 2677 ±83 | 2477±83 | 2817±18 | ✓ |
| 959.63-1 | 21:29 | 6.75 | 3638 | 17297 | 211 | 0.09 | 22.0 | 2867±53 | 2837±18 | ✓ |
| 959.65-1 | 21:51 | 6.38 | 3677 | 16911 | 224 | 0.14 | 18.9 | 2825±60 | 2836±15 | ✓ |
| 959.67-1 | 22:13 | 6.44 | 3739 | 18981 | 232 | 0.07 | 20.6 | 2888±52 | 2806±20 | ✓ |
| 959.68-1 | 22:36 | 6.43 | 3681 | 27810 | 325 | 0.08 | 21.6 | 3111±81 | 2999±14 | ✓ |
| C23.1-7 | 22:58 | 6.42 | 3685 | 7317 | 555 | 0.27 | 20.6 | 589±9 | 474±111 | ✓ |
| 959.76-1 | 23:27 | 6.72 | 2270 | 15701 | 321 | 0.15 | 18.1 | 2776±55 | 2795±16 | ✓ |
| 959.78-1 | 23:53 | 7.04 | 2435 | 14188 | 288 | 0.11 | 18.7 | 2736±71 | 2814±18 | ✓ |
| 959.81-1 | 00:15 | 6.94 | 2460 | 12422 | 242 | 0 | 19.4 | 2768±79 | 2795±14 | ✓ |
| 959.82-1 | 00:37 | 6.95 | 2671 | 20314 | 358 | (-) | 2874 ±50 | 2874±50 | 2843±10 | ✓ |
| 959.84-1 | 01:00 | 6.75 | 2714 | 22060 | 381 | (-) | 19.7 | 2930±48 | 2790±10 | ✓ |
| C23.1-8 | 01:24 | 6.77 | 2778 | 6052 | 583 | 0.1 | 19.5 | 576±8 | 551±80 | ✓ |
| 959.85-1 | 1:47 | 6.50 | 2712 | 14788 | 289 | (-) | 18.0 | 2885±55 | 2850±18 | ✓ |
| 959.87-1 | 02:09 | 6.89 | 2816 | 14469 | 243 | (-) | 20.1 | 2803±95 | 2844±17 | ✓ |
| 959.89-1 | 02:32 | 6.34 | 2886 | 23124 | 414 | 0.02 | 18.6 | 2750±41 | 2833±10 | ✓ |
| 959.93-1 | 02:55 | 6.58 | 2946 | 10232 | 172 | 0.27 | 18.6 | 2836±79 | 2807±24 | ✓ |
| 959.95-1 | 03:17 | 6.60 | 3257 | 12531 | 200 | 0.30 | 20.7 | 2791±83 | 2800±20 | ✓ |
| C23.1-9 | 03:39 | 6.79 | 2952 | 6158 | 596 | 0.32 | 19.4 | 555±10 | 512±98 | ✓ |

BY60216

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|-------------------------------|---------------------|-------------------|-----------------------------------|------------|--------------------|-------------------------|------------------------|-------------------------------|---------|---------------------------|
| Alternative | | UO2/UO 270/254 | 194 (xt) 200 (tnt) 203 (mz) | 206 cps | 254 270 Kcps | 204 cps | 196/194 264 Kcps | 206/238 206/254 206/270 | 207/206 | Check after each!!! |
| 959.100-1 | 04:03 | 6.35 | 2915 | 7442 | 130 | 0.31 | 18.3 | 2787±74 | 2793±29 | ✓ |
| 959.1006-1 | 04:25 | 6.61 | 3053 | 18522 | 280 | 0.16 | 19.8 | 2795±66 | 2844±19 | ✓ |
| 959.107-1 | 04:47 | 6.45 | 3066 | 15849 | 229 | 0.125 | 19.0 | 2861±59 | 2832±16 | ✓ |
| 959.111-1 | 05:09 | 6.44 | 3401 | 6547 | 101 | (-) | 19.1 | 2827±81 | 2846±25 | ✓ |
| 959.113-1 | 05:30 | 6.74 | 3455 | 14701 | 167 | 0.14 | 20.7 | 2805±72 | 2830±20 | ✓ |
| 959.101-1 959.1-10 | 05:53 | 6.84 | 3263 | 6866 | 576 | 0.26 | 20.4 | 566±10 | 558±83 | ✓ |
| 959.101-1 | 06:16 | 7.04 | 3151 | 3602 | 56 | 0.49 | 21.1 | 2717±17 | 2816±47 | ✓ |
| 959.85-2 | 06:46 | 6.73 | 2814 | 21144 | 350 | 0.066 | 18.1 | 2801±53 | 2812±21 | ✓ |
| 959.83-2 | 07:27 | 7.66 | 890 | 2812 | 125 | 0.10 0.07 | 18.5 | 2698±115 | 2826±22 | ✓ |
| 959.82-2 | 07:51 | 7.13 | 1255 | 8866 | 404 | 0 | 17.9 | 2680±78 | 2826±23 | ✓ |
| 959.82-3 | 08:52 | 7.23 | 1615 | 6184 | 191 | 0.33 | 18.1 | 2769±92 | 2777±33 | ✓ |
| END OF SESSION 03/05/05 | | | | | | | | | | |