

UWA SHRIMP LOG SHEET

Date 28/9/05 **UWA mount no(s)** OS-65 **Mineral(s)** ZR **Whose sample?** KMCC **Operator(s)** McN + McC

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

Zircon/Badd.	196	204	204.1	206 ⁶⁰	207	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	-	-	38	-	-	32	32	21		
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:	8.158	0.045	~2.007	1.004	2.005	
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 24 ns Kohler aperture 100 Retard 14 volts Resoln 5205

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

Primary O₂⁻ on: epoxy = 3.1 nA; standard = 4.3 nA; PESABM on std = 68 pA

Raster: Time (mins): 3.0 Aperture: 130 No. of scans: 7

Useful information

CZ3 = 564 Ma & 551 ppm U
 Temora 2 = 417 Ma & ~130 ppm U
 Khan = 518 Ma & 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)		Offsets OK?
								206/238	207/206	
Alternative PHALABAW RA * NOT CZ3.		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!!!

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<i>CZ. 1-1</i>	11:08	3.76	—	—	—	.08	—	—	2049±9	✓
<i>CZ. 2-1</i>	11:39	6.24	25	3300	551.0	.0004	21.5	564	530	✓
<i>Tem. 1-1</i>	12:09	6.32	24	710 2100	162.1 470	0.004	21.2	427	334	✓
<i>b. 1-1</i>	12:43	6.26	23	2.3	133.2	1.99	22.4	1.7	1.07	✓
<i>Mag. Cycl.</i>										
<i>b. 2-1</i>	13:25	6.27	21	1200	213.3	-0.0004	20.7	624.62	673.21	✓
<i>Mag. Cycl.</i>										
<i>b. 3-1</i>	14:04	6.45	23	2700	540	0.07	23.0	515	781	✓
<i>Tem. 2-1</i>	14:33	6.17	23	340	90.5	0.0003	20.7	409	467	✓
<i>b. 4-1</i>	15:00	6.45	21	1700	296.8	0.0064	21.1	628.7	588	✓
<i>Mag. Cycl.</i>										
<i>b. 5-1</i>	15:38	6.28	21	3.2	215	0.97	21.9	1.64	1.0966	✓
<i>Mag. Cycl.</i>										
<i>b. 6-1</i>	16:10	6.24	22	1400	240.3	0.0017	20.7	629	605	✓
<i>Tem. 3-1</i>	16:39	6.26	22	740	185.2	0.005	21.2	436	240	✓
<i>b. 7-1</i>	17:07	6.43	22	1666	266.3	.0017	21.0	617	577	✓
<i>Mag. Cycle.</i>										
<i>b. 8-1</i>	17:40	6.33	24	6200	983.3	.004	22.7	602	671	✓
<i>Mag. Cycle.</i>										
<i>b. 9-1</i>	18:15	6.26	24	1200	191.3	.005	21.8	669	634	✓
<i>Tem. 4-1</i>	18:47	6.48	23	660	159.7	.004	22.5	413	340	✓

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)		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!!!
b.10-1	19:16	6.39	19	910	346.1	0.002	18.6	319.8	259	✓
Mag. Cycle										
b.10-2	19:52	6.30	21	656	222	.081	19.7	313	493	✓
Mag. Cycle										
b.11-1	20:26	6.24	23	3.1	181	0.59	21.9	0.7384	0.9352	✓
Tem. 5-1	20:55	6.27	23	7300	1752.5	.0001	20.7	429	432	✓
b.12-1	21:25	6.19	25	4000	254.4	.0005	21.7	1438	1514	✓
Mag. Cycle										
b.13-1	22:01	6.96	23	3700	1225.2	0.101	24.4	252	664	✓
Mag. Cycle										
b.14-1	22:33	6.16	25	4.7	171.8	0.598	23.2	1.097	1.06	✓
Tem. 6-1	23:02	6.02	22	320	90.2	.004	19.2	403	426	✓
b.15-1	23:30	6.43	23	3600	626.7	.019	23.1	547	562	✓
Mag. Cycle										
b.16-1	00:04	6.25	22	5600	1239.2	0.618	21.1	479	655	✓
Mag. Cycle										
b.16-2	00:37	6.87	24	2600	580.5	.045	26.0	382	751.8	✓
Tem. 7-1	01:05	6.22	22	966	255	.000	20.4	410	501	✓
b.17-1	01:33	6.29	21	3500	875.3	.027	19.1	439	698	✓
Mag. Cycle										
b.18-1	02:06	6.10	24	520	86.9	.00195	20.3	623	677	✓

