

UWA SHRIMP LOG SHEET

Date 11/1/06 **UWA mount no(s)** 05-88 **Mineral(s)** Zr **Whose sample?** JOAS **Operator(s)** McN + Nick

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

Mineral	Mass	Count time (secs)	Delay time (secs)	Centring (secs)	
Zircon/Badd.	196	2	8	3	
	204	10	3	-	
	204.1	10	1	-	
206	206	10/20	4	3/4	
	207	30/10	2	-	
	208	10	1	-	
238	238	5	5	3/4	
	248	5	5	3/2	
	254	2	2	2	
Titanite/Perovskite	200	2	8	3	
	204	10	3	-	
	204.1	10	1	-	
206	206	10/20	4	4	
	207	30/10	2	-	
	208	10	1	-	
248	248	5	4	4	
	254	5	2	3	
	270	7	3	3	
Monazite (SHB)	202	2	8	1	
	203	2	1	2	
	204	10	1	-	
204.1	204.1	10	1	-	
	206	10/20	4	4	
	207	30/10	2	-	
208	208	5	2	2	
	232	5	4	2	
	254	2	3	2	
264	264	2	3	2	
	270	2	2	2	
	270	2	2	2	
		in		out	in
Xenotime (SHB)	194	2	8	1	
	(196)	(5)	(2)	-	
	204	10	3	-	
204.1	204.1	10	1	-	
	206	10/20	4	4	
	207	30/10	2	-	
208	208	5	1	-	
	238	5	3	4	
	248	5	2	3	
254	254	2	2	2	
	254	2	2	2	
	254	2	2	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:	8.154	0.045	~2.003	1.004	2.006	
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:	4.136	0.045	~2.001/9	1.001/5	2.001/9	
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:	~1.000	1.110	0.045	~2.001/9	1.001/5	~2.001/9
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:	1.998	10.143	0.045	~2.001/9	1.001/5	2.001/9

Deadtime 24 ns **Kohler aperture** 100 **Retard** 14.1 volts **Resoln** 48.29

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

Primary O₂⁻ on: epoxy = 138 nA; standard = 1.44 nA; PESABM on std = 29 pA

Raster: Time (mins): 2.0 Aperture: 130 No. of scans: 6

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: 11/1/06
↓
do
A+B

CZ3 x 1
Tem x 12
~~100 x 2~~
~~100 x 2~~

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	207/206 207/206 207/206	Check after each!!!

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C2.1-1	10:23	6.20	21	2700	551	.41	25.7	562±43	527±91	✓	
<p>high 204 high 204; SBM variable; worked on spot shape!! changed RASTER 1.5 → 2.0 mins + 120 → 130</p>											
C2.1-2											*SBM + droppa
<p>SBM dropped → aborted (204 OK) ↑ Duo P pro 310 to 325; cooked Duo count for 5 mins → returned.</p>											
C2.1-3	11:50	6.91	9.1	1300	551	.16	25.3	563±6	636±49	✓	1.2%
Tem.1-1	—		aborted	→	10	↑ + then ↓					
Tem 2-1	12:23	6.88	17.7	3000	172	.11	25.2	611±7	657±103	✓	4.8%
Tem 3-1	12:42	6.91	17.6	2200	128	-ve.	25.2	609	705		2.1%
A.1-1	13:12	6.96	16.5	53k	906	6.6	26.7	1195±5	2226±25	✓	1.8
A.2-1	13:32	7.11	17.1	39k	604	8.3	27.9	1942	2552±24	✓	1.6
A.3-1	13:53	7.64	12.1	144k	6000	6.2	6.201	693±30	1258±23	✓	11.4 on (last section) end of 6 th 10-3
A.4-1	14:16	6.80	15.9	36k	350	2.6	23.3	1960±19	2611±181	✓	
A.5-1	14:27	—	aborted:	206	too	high.					
A.6-1	14:54	6.90	17.5	45k	786	1.7	26.5	2200±11	2413±11	✓	
A.7-1			Aborted	during	rastr						
A.8-1	15:16		Aborted	high	206						
A.9-1			Aborted	during	rastr						
A.10-1			Aborted	high	206						
A.11-1	15:50	6.83	17.6	22.5	178	0.3	2532±34	2715±15	26.9	✓	

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 (int) 203 (mz)	206 cps	254 270 Kcps	204 cps	196/194 264 Kcps	206/238 206/254 206/270	207/206 Check after each!!!

A.12-1	16:14	6.78	17.4	29k	293	96	26.1	200±16	2557±16	✓	
A.13-1	16:50	6.51	17.4	16.5	140	0.10	23.3	2726±35	2900±13	✓	
A.14-1	17:22	6.44	19.1	15.7	118	0.14	25.0	2610±38	2701±14	✓	
B.1-1	18:00	6.79	17.4	56k	468	-10	26.1	2451±20	2705±7	✓	1.5
TEM.4-1	18:21	7.02	17.8	3k	166	-78	25.8	400±6	264±169	✓	1.1
TEM.5-1	18:41	7.05	16.8	2.4k	142	-ve	24.2	421	443	✓	0.9
TEM.6-1	19:02	6.81	18.1	2.6k	136.4	0.97	25.0	419±10	312±210	✓	
B.1-2	19:22	7.16	18k	49k	443	0.64	25.8	2735±21	2640±10	✓	
B.2-1	19:44	6.56	18.6k	40	317	0.11	24.1	2518±20	2703±10	✓	1.9
B.3-1	19:55	Aborted	high	204							
B.4-1	20:15	6.92	19.3k	41.3k	302	-0.8	25.7	2504±26	2681±8	✓	
B.5-1	20:35	7.53	19.1	65.4	896	0.44	29.8	1311±8	2185±9	✓	1.6
B.6-1	20:57	7.31	19.5	38.4	345	0.41	28.3	1950±17	2645±10	✓	1.6
B.6-2	21:18	7.02	17.4	53	491	0.30	23.8	2776±20	2557±15	✓	1.3
B.7-1	21:35	Aborted	high	204							
TEM.7-1	22:03	6.67	19.6	1.8	92	-ve	24.7	428±9	634±162	✓	
TEM.8-1	22:22	6.80	18.4	2.1	107	1.2	23.6	433±9	307±200	✓	
B.8-1	22:42	6.28	13.9	57	571	0.44	16.2	1756±11	2512±8	✓	6.1 9.1k or 10.1k
B.9-1		Aborted									
B.10-1	23:11	6.98	18.0	32.7	286	0.65	23.7	2241±18	2640±12	✓	
B.11-1	23:31	7.00	19.9	49.9	484	0.9	26.4	1827±11	2554±8	✓	

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?
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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!!!
B.12-1	23:50	6.78	16.2	18.4	623	4.5	22.1	1552±10	2350±20	✓
A.15-1	23:54	High	204, aborted							
A.16-1	00:15	6.59	20.8	20.6	136	0.29	25.1	2655±55	2655±10	✓
A.17-1	00:57	6.73	20.8	22.1	147	0.28	25.5	2557±25	2702±11	✓
A.17-2	00:57	6.90	19.3	36	260	0.15	24.7	2512±23	2706±9	✓
A.18-1	01:17	6.76	20.6	12	254	0.04	24.7	2656±21	2721±9	✓
A.18.2	01:36	7.03	19.7	41.2	260	0.40	25.5	2496±25	2715±12	✓
A.19-1	01:56	6.72	21.7	45	278	0.53	27.2	2556±22	2691±11	✓
A.20-1		Aborted	High 204							
A.21-1	02:22	6.95	20.5	28.4	212	0.52	26.9	2221±19	2623±11	✓
TEM.9-1	02:41	7.00	18.8	35k	1670	0.7	26	437±2	417±19	✓
TEM.10-1	02:59	6.68	10.9	1.5	114.7	2.1	13.6	486±12	510±178	✓
B.16-1	03:28	7.11	21.8	21k	127	0.14	28.3	2620±48	2707±13	✓
B.16-2	03 LF	6.76	20.9	61k	60.8	0.8	26	258±61	2705±70	✓
B.16-1	04:16	7.03	19.5	51.6	361	0.18	26.1	2435±21	2665±6	✓
B.18-1	04:46	6.99	19.0	63	482	0.12	24.7	2387±14	2602±5	✓
B.15-2	05:06	6.97	20	63	460	0.13	25.2	2446±27	2627±10	✓
B.5-2	05:28	6.63	17.9	54	761	0.33	23.2	1632±8	229±8	✓
TEM.11-1	05:50	7.23	20 20.8	205	215	0.81	27	416±9	251±157	✓ 7.5%
TEM.12-1	06:10	6.87	18k	2.9	145	0.63	23.4	439±7	366±185	✓
A.22-1	06:37	6.94	18.9	455	414	0.93	26	2176±25	2665±13	✓ 7.4%
A.23-1	06:59	7.12	17.2	41.4	557	0.85	23.1	1570±10	2429±13	✓
A.23-2	07:10	Aborted	204 too high							
A.24-1	07:18	Aborted	204 too high							
A.25-1	07:44	6.60	12	2300	157	0.19	27.0	2427±25	2666±10	✓
Tem.13-1	08:04	7.12	9.9	420	210	0.53	25.4	429±6	424±113	✓
Tem.14-1	08:24	7.00	10.0	250	123	0.40	25.2	437±7	566±145	✓

Sp. loss
6.4%
on last scans
↓