UWA SHRIMP LOG SHEET

Date	UWA mount no(s)	Mineral(s)	Whose sample?	Operator(s)
4/8/06	06-30	ZR	SS	MoN + Nick

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

Zircon/Badd.	**196**	204	204.1	**206**	207	208	**238**	**248**	**254**
Count time (secs)	2	10	10	10/~~20~~	30/~~10~~	~~10~~ 5	5	5	2
Delay time (secs)	8	3	1	4	2	1	~~8~~ 4	2	~~2~~ 3
Centring (secs)	3	-	-	~~8~~ 4	-	-	~~8~~ 2	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:	8.160	0.045	~2.010	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:~~					

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** 5839

Primary on Steel: O^- — bits & nA O_2^- — bits & nA

Primary O_2^- on: epoxy = 3.1 nA; standard = 4.4 nA; **PESABM** on std = 78 pA

Raster: Time (mins): 2 Aperture: 120 **No. of scans:** 5

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
BR266 : 559 Ma & 903 ppm U

MONAZITE
French = 514 Ma & 1000 ppm U
PD95 7/6 age = 1698(?) Ma
Z2908 7/6 age = 1795(?) Ma
QMa = 505(?) Ma

XENOTIME
MG1 = 490(?) Ma
BS1 = 507(?) Ma
Xeno1 = 994 Ma & 7/6 age = 997 Ma

900ppm U = 50% on 300KV

Stds → BR266 × 1
SDA × 2

ZIRCONS → ≥ 2.55Ga

Do A+B → rotate

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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!!!*	VARIATION IN SBM
0630											
BR.1-1	10:10	5.37	27	5200	903	–	20.2	559±2	556±13	✓	1.5
BR.1-2	10:25	5.39	27	5300	914	.02	20.4	562±3	568±19	✓	2.2
BR.1-3	10:44	5.40	28	5300	898	.02	21.0	554±2	567±15	✓	1.2
SDA.1-1	11:03	5.55	25	18K	409	.01	21.5	3413±17	3586±4	✓	3.1
SDA.1-2	11:19	5.37	27	15K	331	.01	22.0	3510±17	3576±3	✓	2.3
BR.1-4	11:34	5.41	27	5100	901	.03	21.5	553±2	572±18	✓	?
		Did – sample – change → HV off									
BR.1-5	12:04	5.40	27	5100	912	–	21.6	545±5	570±15	✓	2.5
BR.1-6	12:19	5.40	26	5000	904	–	22.1	547±	573	✓	2.1
A.26-1	12:40	5.43	23	5400	154	0	20.4	3118±28	3189±5	✓	3.5
A.27-1	13:01	5.49	23	4400	128	.07	21.2	3039±32	3187±7	✓	2.7
A.28-1	13:23	5.29	24	5000	147	.02	21.8	3058±21	3185±7	✓	2.1
A.29-1	13:44	5.29	23	4300	131	.03	20.3	3145±24	3167±10	✓	3.5
BR.1-7	14:07	5.28	20	4000	914	.03	18.3	575±3	550±16	✓	
A.30-1	14:39	5.44	22	9600	357	1.0	19.8	2627±16	3241±7	✓	3.2
A.31-1	14:56	5.66	23	8000	232	.47	21.2	2988±24	3246±7	✓	3.1
A.32-1	15:18	5.56	23	6800	208	.43	21.4	2871±21	3298±7	✓	0.9
A.33-1	15:46	5.61	24	5800	158	.56	23.4	3048±20	3330±7	✓	1.3
A34	15:55	Aborted, high 204.									
BR.1-8	16:11	5.40	27	4900	887	0	23.1	540±5	564±18	✓	2.9
A.35-1	16:34	5.33	25	5200	186	0	20.2	2556±15	2626±7		1.4

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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!!!*	
A.36-1	16:52	5.17	28	2400	55	.15	22.1	3345±42	3327±10	✓	1.2
A.37-1	17:11	5.41	25	4800	166	.07	21.4	2518±16	2600 2584±9	✓	1.5
A.38-1	17:30	5.25	25	8000	220	.02	19.2	3206±22	3258±4	✓	1.2
A.39-1	17:50	4.83	26	3100	98	.05	18.5	2994±37	3334±7	✓	2.5
BR.1-9	18:06	5.24	28	5100	880	0	21.2	557±3	570±17	✓	2.0
A.40-1	18:25	5.35	27	6900	177	.24	22.4	3078±20	3264±6	✓	2.8
B.28-1	18:46	4.68	24	3100	121	.19	16.8	2767±22	2992±14	✓	5.1
B.29-1	19:08	4.55	23	4800	226	.21	14.4	2552±22	2563±14	✓	4.1
B.30-1	19:26	5.30	29	5400	123	.15	21.4	3219±41	3365±19	✓	9 spike on 1st scan
B.31-1	19:45	5.03	28	6600	163	.61	19.7	3271±23	3339±9	✓	12.6 spike on 1st scan
B.32-1	20:06	5.26	27	4200	113	.07	20.7	3018±89	2949±56	✓	19 spikes on scans 3+4
BR.1-10	20:25	5.28	27	4800	861	.03	20.6	558±8	578±20	✓	3
BR.1-11	20:42	5.22	25	4600	902	0	19	560±10	562±31	✓	5.4
BR.1-12	20:59	5.32	23	4400	931	0	18.5	551±4	589±18	✓	4.1
B.33-1	21:19	5.48	25	6400	256	.245	20.9	2247±13	2520±9	✓	2.3
B.34-1	21:38	5.33	24	6300	189	.01	19.8	2976±18	3000±8	✓	0.9
B.35-1	21:57	5.18	24	4700	147	.17	20	2979±25	2993±9	✓	4.9
B.36-1	22:17	5.22	26	12000	322	.16	21.3	3067±15	3323±5	✓	0.8
B.37-1	22:39	5.11	25	8600	406	.38	19.7	2125±10	2479±7	✓	1.0
BR.1-13	22:58	5.05	25	4600	879	.05	19	572±3	563±16	✓	1.6
B.38-1	23:19	4.98	23	7300	284	.30	17.5	2709±22	2979±5	✓	1.7

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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!!!*	
B.39-1	23:28	high 204, aborted.									
B40-1	23:45	5.61	25	12k	362	.14	23.2	2720±15	2972±4	✓	1.2
B41-1	00:04	4.81	22	6600	365	.22	16.4	2160±16	2484±8	✓	1.8
B42-1	00:24	5.29	26	4600	166	.01	21.6	2476±17	2561±9	✓	1.1
B43-1	00:51	5.38	24	3600	153	.75	20.3	2199±18	2520±20	✓	1.3
BR.1-14	01:18	5.13	21	4000	919	–	16.9	567±3	601±18	✓	
A.41-1	01:45	5.50	26	4800	120	.40	22.8	3116±32	3278±8	✓	0.3
A.42-1	02:03	5.47	25	7000	192	.17	21.3	3028±20	3174±5	✓	0.4
A.43-1	02:20	5.44	26	1600	36	.23	21.5	3416±44	3454±11	✓	1.1
A.44-1	02:37	5.40	26	5000	130	0	21.3	3141±21	3195±6	✓	1.8
A.45-1	02:57	5.49	26	2700	66	.65	22.7	3225±34	3308±10	✓	1.4
A.46-1	03:14	5.43	27	2600	77	1.0	22.3	2715±29	3423±10	✓	0.7
BR.1-15	03:31	5.46	22	4500	941	0	18.9	555±3	604±21	& ✓	1.1
BR.1-16	03:48	5.09	19	5700	937	.064	16.4	570±3	564±19	✓	2.3
B.44-1	04:09	5.58	27	7100	215	.19	23.8	2585±18	2963±6	✓	1.3
B.45-1	04:25	5.33	27	6700	184	.02	21.4	2454±21	3016±5	✓	1.1
B.46-1	4:45	5.45	25	7500	310	.24	20.3	2178±18	2500±8	✓	1.4
B.47-1	05:14	5.36	26	3000	74	–	21.3	3292±30	3343±9	✓	1.1
B.48-1	05:35	5.39	28	8900	288	.01	23	2456±90	2527±16	✓	2.4
BR.1-17	05:52	5.11	22	4200	931	–	16.5	570±4	598±17	✓	3.3
A.47-1	06:11	5.77	28	2600	121	.65	25.3	1554±48	3335±9	✓	2.0

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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!!!*
A.48-1	06:30	5.37	27	4100	88.2	–	21.4	3459±33	3535±6	✓
A.49-1	06:51	5.22	28	3200	105	0.3	21.4	2467±36	2612±13	✓
A.50-1	07:08	5.33	28	4900	155	.04	21.8	2539±18	2609±7	✓
A.51-1	07:24	5.36	27	5600	130	.04	22.2	3218±28	3437±6	✓
A.52-1	07:40	5.67	28	1800	85	–	24.9	3478±43	3542±12	✓
BR.1-18	07:59	5.12	20	4000	970	.01	15.5	566±3	558±15	✓
BR.1-19	08:15	4.97	15	2900	953	.01	10.9	582±3	582±16	✓
	shut down @			8:21 am.						