

SHRIMP data acquisition logsheet

SHRIMP A or **B**

Zircon or Titanite

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
14/11/11	11-08 11-30	AISRF	McN	Serena Suzalyn/Jones

Deadtime... 2.5 ns

Kohler aperture... 100

Retard... 14.4 volts

Resoln... 5250

Primary O<sub>2</sub> on: epoxy ..... nA standard ..... nA PostESA BM on std .....

Raster: Time (mins) ..... 2 Aperture ..... 120 No. of scans ..... 7

Zircon/Badd.	196	204	Bk	206	207	208	238	248	254
Count time (secs)	2	10	10	10/20	30/10	10	5	5	2
Delay time (secs)	8	4	2	4	2	2	3	3	3
Peak centring time (secs)	3	-	-	6	-	-	3	3	2
<b>Titanite</b>	200*	204	Bk	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	5	5	5	7
Delay time (secs)	8	3	2	4	2	2	4	3	3
Peak centring time (secs)	3	-	-	6	-	-	2	3	3

Offsets					
Zircon/Badd.	196-204	204-Bk	204-206	206-207	206-208
Expected offset	8.170	0.040	2.001/9	1.001/5	2.001/9
Setup offsets					
<b>Titanite</b>	200*-204	204-Bk	204-206	206-207	206-208
Expected offset	4.136	0.040	2.001/9	1.001/5	2.001/9
Setup offsets	4.139	.040	~2.004	1.004	2.006

Standards

Zircon:

- BR266
- TEM2
- OGC-1
- CZ3
- M257

206/238 age = 559 Ma; 903 ppm U  
 206/238 age = 416.78 +/- 0.33 Ma; U = variable  
 207/206 age = 3467 +/- 3 Ma; U = variable  
 206/238 age = 561.5 Ma; 551 ppm U  
 206/238 age = 561.3 Ma; 840 ppm U

Titanite:

- Khan
- ORBA

206/238 age = 522.2 Ma; 700 ppm U  
 207/206 age = 2687 +/- 5 Ma; 150-220 ppm U (ave = 188 ppm)

\* Titanite reference peak for m/z 200 is a doublet: use low-mass peak.

Both Stds on 11-30

Date 14/11/11

Mount 11-08 +

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Filename	Time	UO/U <del>254/238</del> UO2/UO 270/254	196 <del>Keps</del> Ref. Keps	206 -cps-	f206 (%)	U ppm <del>254/270</del> Keps	Sensit- ivity	Age/Ma <del>206/238</del> Pb/U ratio 206/270	Age/Ma 207/206 207/206	SBM (%)
11-30 KH. 3-2	10:29	.85	1.5	2800	.45	700	-	.165	533 ± 34	3.8
KH. 6-1	10:55	.86	1.6	2900	.80	721	-	.161	485 ± 38	3.5
ORBA. 1-3	11:17	.90	1.6	3800	1.09	249	-	1.03	2678 ± 12	3.0
11-08 KH. 7-1	11:40	.85	1.5	2800	.57	715	-	.165	468 ± 33	3.2
A. 14-1	12:07	.85	1.8	1000	1.88	16	-	.909	2492 ± 33	1.5
A. 15-1	12:29	.90	1.8	490	4.66	9.4	-	.907	2548 ± 51	1.7
A. 16-1	12:51	.80	1.9	2200	.74	64.	-	.916	2529 ± 15	2.6
A. 17-1	13:14	0.86	1.8	1200	1.46	24	-	0.923	2515 ± 23	2.8
1130 KH. 7-2	13:39	0.85	1.5	2800	1.53	713	-	0.155	206 ± 98	3.6
1108 A. 18-1	14:07	0.80	2.0	1500	1.20	25	-	0.882	2509 ± 25	2.2
A. 19-1	14:29	0.86	1.9	1700	1.25	32	-	0.894	2511 ± 17	3.3
A. 20-1	14:51	0.88	2.0	2100	1.00	19	-	0.913	2490 ± 14	3.8
A. 21-1	15:13	0.86	1.8	1200	1.87	21	-	0.923	2524 ± 22	2.0
A. 22-1	15:34	0.84	1.2	2800	0.67	33	-	0.875	2485 ± 14	4.6
A. 23-1	15:55	0.86	1.8	1700	1.59	40	-	0.897	2476 ± 28	1.7
1130 KH. 8-1	16:20	0.89	1.4	2600	0.40	683	-	0.152	542 ± 31	1.6
ORBA. 1-4	16:42	0.92	1.6	3800	1.10	244	-	1.000	2684 ± 11	4.0
1108 A. 24-1	17:06	0.86	1.9	2900	0.64	92	-	0.906	2517 ± 11	3.3
A. 25-1	17:27	0.85	1.8	1500	0.99	36	-	0.882	2513 ± 15	2.2
A. 26-1	17:49	0.87	1.8	1300	1.73	26	-	0.928	2499 ± 22	2.6
A. 27-1	18:12	0.84	1.8	1500	1.21	32	-	0.937	2529 ± 19	0.9
A. 28-1	18:34	0.84	1.8	1900	1.05	33	-	0.904	2539 ± 14	2.1
A. 29-1	19:05	0.84	1.9	2000	0.96	43	-	0.909	2523 ± 16	3.3
1130 KH. 8-2	19:29	0.85	1.5	2700	0.40	696	-	0.158	554 ± 28	1.8
ORBA. 1-5	19:51	0.90	1.6	3800	1.24	257	-	1.000	2683 ± 12	2.6
1108 A. 30-1	20:16	0.84	2.0	1400	0.99	30	-	0.875	2526 ± 19	1.9
A. 31-1	20:38	0.86	1.9	700	2.53	22	-	0.933	2530 ± 36	1.4
A. 32-1	20:59	0.88	1.8	2100	0.52	26	-	0.875	2508 ± 19	3.7
A. 33-1	21:21	0.87	1.2	1300	1.49	24	-	0.928	2510 ± 25	3.2
A. 34-1	21:43	0.86	1.9	6700	0.27	95	-	0.893	2515 ± 7	3.5
A. 35-1	22:09	0.86	1.9	2300	0.95	83	-	0.920	2506 ± 16	4.3
1130 B. 1-1	22:33	0.87	1.6	1300	1.12	90	-	0.928	2555 ± 19	6.3
B. 2-1	22:54	0.94	1.8	5800	0.57	271	-	0.920	2568 ± 7	1.9
B. 3-1	23:17	0.91	1.7	4000	0.67	180	-	0.930	2553 ± 10	2.9
KH. 8-3	23:39	0.85	1.5	2800	0.46	706	-	0.155	516 ± 34	4.9
ORBA. 1-6	00:02	0.90	1.5	3800	1.12	254	-	1.020	2672 ± 12	1.2

Offsets: <sup>200</sup>196-204 = ...4...139 204-Bkg = ...040... 204-206 = ...2...004... 206-207 = ...1...004 206-208 = ...006

Date 14-15/11/11

Mount 11-30  
11-18

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1130 B

Filename	Time	UO/U	196 Kcps Ref. Kcps	206 -cps-	f206 (%)	U ppm 254/270 Kcps	Sensitiv- ity	Age/Ma 206/238 Pb/U ratio 206/270	Age/Ma 207/206 207/206	SBM (%)
B.4-1	00:35	0.95	1.7	5200	.73	282	—	<del>2566 ± 10</del> 0.881	2566 ± 10	2.0
B.5-1	00:58	0.95	1.7	1700	.99	105	—	0.894	2571 ± 17	1.9
B.6-1	01:21	0.92	1.7	5900	.58	262	—	0.951	2546 ± 8	3.1
B.7-1	01:43	0.94	1.7	7700	.63	299	—	0.950	2556 ± 8	3.6
B.8-1	02:13	0.94	1.8	5300	.57	236	—	0.946	2560 ± 8	2.6
B.9-1	02:42	0.91	1.9	4700	.38	155	—	0.921	2570 ± 9	2.0
B.10-1	03:06	0.92	1.8	4900	.64	201	—	0.942	2552 ± 10	2.3
KH.5-2	03:33	0.83	1.6	1800	6.87	374	—	1.800	464 ± 124	7.2
ORBA.1-7	03:57	0.91	1.8	4300	1.24	252	—	1.024	2662 ± 17	3.6
B.11-1	04:19	0.92	1.8	10000	.30	418	—	0.909	2570 ± 6	4.3
B.12-1	04:41	0.93	1.9	13000	.37	487	—	0.928	2567 ± 9	4.6
B.13-1	05:02	0.90	1.9	4400	.72	153	—	0.936	2566 ± 9	3.4
B.14-1	05:24	0.92	1.8	5700	.57	234	—	0.934	2548 ± 10	4.8
B.15-1	05:45	0.94	1.9	5900	.55	243	—	0.952	2556 ± 8	3.1
B.16-1	06:06	0.90	1.9	4100	.67	144	—	0.932	2548 ± 12	4.4
B.17-1	06:28	0.84	1.6	1800	1.24	144	—	0.474	2441 ± 20	4.1
B.18-1	06:49	0.94	1.9	6100	.43	241	—	0.938	2554 ± 11	4.3
KH.9-1	07:12	0.83	1.6	3100	.51	718	—	0.163	564 ± 33	5.8
ORBA.1-8	07:35	0.91	1.7	4300	1.22	263	—	1.000	2671 ± 14	3.2
B.19-1	07:56	0.95	1.8	7000	.40	299	—	0.933	2567 ± 7	2.8
B.20-1	08:17	0.89	1.9	5600	.41	182	—	0.949	2578 ± 8	3.5
— Mount change —			R ~ 5200 etc.			ad ok				
KH.10-1	09:14	0.88	1.7	3200	.72	716	—	0.152	447 ± 50	2.5
ORBA.1-9	09:39	0.92	1.9	4400	1.1	244	—	1.000	2705 ± 12	4.6
1118A.15-1	10:12	0.77	1.6	240	6.3	5	—	1.20	2644 ± 88	1.5
A.16-1	10:42	0.71	1.7	1500	1.2	57	—	0.88	2428 ± 20	1.0
A.17-1	11:05	0.79	1.0	930	2.0	46	—	0.85	2399 ± 30	1.5
A.18-1	11:32	0.74	1.0	1500	.84	81	—	0.88	2438 ± 22	2.4
KH.9-2	11:57	0.86	1.5	3000	.56	728	—	.158	492 ± 36	2.9
ORBA.1-10	12:18	0.92	2.1	4600	1.19	237	—	1.00	2675 ± 12	2.2
A.19-1	12:42	0.73	1.0	740	3.32	23	—	.92	2437 ± 37	3.3
A.20-1	13:07	0.71	.88	1600	1.96	55	—	.94	2433 ± 23	?
A.20-2	13:28	.67	.76	930	1.87	38	—	.93	2414 ± 30	2.3
A.21-1	13:50	.72	1.2	1400	1.42	66	—	.87	2418 ± 23	1.5
A.22-1	14:13	0.71	0.85	1400	0.55	49	—	0.93	2452 ± 15	0.7

1130 B

1130

mislabelled

1-18

1-18

Offsets: <sup>200</sup>204 = 4.139 204-Bkg = .040 204-206 = 2.004 206-207 = 1.004 206-208 = 2.006

Date ~~11-18~~ 15/11/11

Mount 11-18 + 11-28

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Filename	Time	UO/U	196	206	f206	U	Sensit-	206/270	Age/Ma	Age/Ma	SBM
Alternatives		254/238	Kcps	-cps-	(%)	ppm	ivity	Age/Ma	207/206	207/206	(%)
		UO2/UO	Ref.			<del>254/270</del>		Pb/U ratio			
1130 KH.10-1	14:38	0.86	1.6	3000	0.71	691	-				
ORBA.1-11	15:00	0.91	1.7	4300	1.11	259	-	0.157	502 ± 41		2.2
1112 A.23-1	15:23	0.70	0.93	770	0.71	41	-	1.000	2691 ± 13		0.7
A.24-1	16:02	0.77	1.0	2600	0.80	142	-	0.905	2457 ± 25		0.9
A.25-1	16:25	0.72	1.0	1200	1.06	55	-	0.928	2465 ± 12		1.5
A.26-1	16:47	0.71	0.91	1900	0.64	100	-	0.923	2446 ± 30		1.3
A.27-1	17:13	0.72	0.84	530	1.86	20	-	0.950	2462 ± 14		1.0
							-	.914	2441 ± 49		2.0
Sample change → HV off											
1130 KH. 11-1	18:10	0.84	1.3	2700	1.53	735	-	0.168	541 ± 3		4.7
ORBA.1-12	18:37	0.95	1.5	3700	0.99	262	-	0.948	2701 ± 11		1.3
1128 B.8-1	19:06	0.92	1.7	2500	0.25	99	-	1.000	2683 ± 14		1.7
B.8-2	19:27	0.85	1.5	1900	0.50	84	-	1.055	2657 ± 109		1.9
B.8-3	19:48	0.91	1.6	2200	1.83	92	-	1.000	2699 ± 17		1.9
B.9-1	20:10	0.83	1.1	1100	3.88	53	-	1.100	2761 ± 57		1.0
B.9-2	20:31	0.89	1.4	360	1.64	15	-	1.028	2694 ± 36		1.3
B.10-1	21:02	0.92	1.6	1200	0.44	45	-	0.923	2707 ± 12		1.1
B.10-2	21:23	0.87	1.2	1400	0.53	86	-	1.000	2696 ± 21		1.4
B.11-1	21:47	0.90	1.7	1000	0.83	58	-	1.000	2665 ± 21		1.4
<del>KH.12-1</del>	22:25	0.89	1.3	2700	0.39	731	-	0.158	542 ± 39		0.9
ORBA.1-13	22:47	0.95	1.6	3800	1.15	256	-	0.950	2676 ± 11		0.7
1130 C.1-1	23:24	0.84	1.2	1500	2.04	23	-	0.938	2507 ± 21		1.0
C.2-1	23:45	0.90	1.5	4600	1.58	177	-	0.978	2550 ± 11		1.1
C.3-1	00:07	0.79	1.3	2500	1.30	35	-	0.925	2481 ± 15		0.8
C.4-1	00:31	0.89	1.5	4100	.63	167	-	0.953	2551 ± 27		4.3
C.5-1	00:58	0.92	1.6	8500	2.07	66	-	0.94	2552 ± 31		1.1
C.6-1	01:19	0.88	1.5	2300	1.15	129	-	0.958	2561 ± 16		1.9
C.7-1	01:44	0.80	1.2	1200	1.07	18	-	1.0	2503 ± 24		1.1
C.8-1	02:15	0.88	1.6	1500	1.26	82	-	0.937	2531 ± 19		0.7
C.9-1	02:41	0.87	1.6	1400	1.28	74	-	1.0	2567 ± 19		2.0
KH.13-1	03:14	0.86	1.5	3000	.58	749	-	1.578	548 ± 31		2.6
ORBA.1-14	03:39	0.89	1.7	4100	1.17	261	-	0.976	2667 ± 11		2.8
C.10-1	04:01	0.86	1.8	1800	2.63	97	-	0.947	2531 ± 21		1.2
C.11-1	04:24	0.89	1.7	3700	0.96	159	-	0.949	2565 ± 12		2.6
C.12-1	04:47	0.91	1.8	2000	1.01	102	-	0.952	2553 ± 14		1.1
C.13-1	05:09	0.87	1.8	1900	1.99	107	-	0.950	2550 ± 19		1.3

Offsets: 196-204 = ..... 204-Bkg = ..... 204-206 = ..... 206-207 = ..... 206-208 = .....

Date ~~16~~ 16/11/11

Mount 11-30

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1130

Filename	Time	UO/U	196	206	f206	U	Sensit-	Age/Ma	Age/Ma	SBM
Alternatives		254/238	Kcps	-cps-	(%)	ppm	ivity	206/238	207/206	(%)
		UO2/UO	Ref.			254/270		Pb/U ratio	207/206	
		270/254	Kcps			Kcps				
C.14-1	05:31	0.88	1.8	2800	0.88	127	-	0.966	2528 ± 11	2.0
C.15-1	06:03	0.90	1.7	4300	0.91	150	-	0.977	255 ± 12	3.4
C.16-1	06:25	0.90	1.8	5100	1.00	177	-	0.962	2558 ± 11	1.3
C.17-1	06:57	0.86	1.8	1900	1.57	88	-	1.000	2524 ± 18	2.8
KH.13-2	07:20	0.87	1.6	3200	0.52	737	-	0.160	525 ± 27	0.7
DRBA.1-15	07:42	0.90	1.9	4500	1.13	269	-	0.957	2678 ± 12	2.6
C.18-1	8:16	.91	1.9	2700	.89	131	-	0.931	2562 ± 17	3.0
C.18-2	8:37	.90	1.7	1700	2.46	94	-	0.944	2552 ± 20	1.2
— FINISHED —										

Offsets: 196-204 = ..... 204-Bkg = ..... 204-206 = ..... 206-207 = ..... 206-208 = .....

