

SHRIMP data acquisition logsheet

SHRIMP A or B

Zircon or Titanite

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
20/12/11	09-22 + 11-21 11-39	AGM AISRF	McN	ADAM

Deadtime... 25 ns Kohler aperture... 100? Retard... 6361 volts Resoln... 4796

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

Raster: Time (mins) ..... Aperture ..... No. of scans .....

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	23	23	34	3	3
Peak centring time (secs)	34	-	-	68	-	-	34	3	2
<b>Titanite</b>	200*	204	Lk	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	5	5	5	7
Delay time (secs)	8	34	2	4	23	23	4	3	3
Peak centring time (secs)	34	-	-	68	-	-	24	3	3

Offsets					
Zircon/Badd.	196-204	204-Bk	204-206	206-207	206-208
Expected offset	8.170	0.0	2.001/9	1.001/5	2.001/9
Setup offsets	8.163	-0.040	~2.006	1.005	2.008
<b>Titanite</b>	200*-204	204-Bk	204-206	206-207	206-208
Expected offset	4.136	0.0	2.001/9	1.001/5	2.001/9
Setup offsets	4.139	0.040	~2.006	1.006	2.009

Standards

- Zircon:
- BR266 206/238 age = 59 Ma; 903 ppm U
  - TEM2 206/238 age = 16.78 +/- 0.33 Ma; U = variable
  - OGC-1 207/206 age = 67 +/- 3 Ma; U = variable
  - CZ3 206/238 age = 1.5 Ma; 551 ppm U
  - M257 206/238 age = 1.3 Ma; 840 ppm U
- Titanite:
- Khan 206/238 age = 22.2 Ma; 700 ppm U
  - ORBA 207/206 age = 687 +/- 5 Ma; 150-220 ppm U (ave = 188 ppm)

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

Filename	Time	UO/U	196	206	206	U	Sensit- ivity	Age/Ma	Age/Ma	SBM
		254/238	Kcps	-cps-		ppm		206/238	207/206	(%)
Alternatives		UO2/UO	Ref.			254/270		Pb/U ratio	207/206	
		270/254	Kcps			Kcps				

09-22

→ calc. U-content of Ant's KHAN → 254 cps =

11,480/12,360/12,920/13,190  
10,360/11,180/11,890/12,790  
AVE = 12,940 cps  
= 700 ppm U

11-21 A. 1-1		"	"			880 cps →		48 ppm U		
2-1		"	"			170 cps →		9 ppm U		
3-1		"	"			200 cps →		11 ppm U		
4-1		"	"			170 cps →		9 "		
5-1		"	"			180 cps →		10 "		
6-1		"	"			390 cps →		20 "		
7-1		"	"			130 cps →				
11-21 B. 1-1						340 cps →		18 ppm.		
"						160 cps		8		
2-1						320 cps		17		
3-1						180 cps		10		
4-1						170 cps		9		
5-1						360 cps				
"						170 cps		9		

TNT

Filename	Time	UO/U	196	206	206	U	Sensit- ivity	Age/Ma	Age/Ma	SBM	10/ma
11-39 BR. 1-1	12:05	6.29	11	2500	.04	903	22.0	559 ± 5	556 ± 24	1.0	2.0
BR. 1-2	12:25	6.08	12	2500	.02	892	22.5	563 ± 3	596 ± 19	1.6	2.0
OQC. 1-1	12:45	6.10	11	2800	.07	142	21.2	3429 ± 54	3478 ± 6	0.8	1.9
OQC. 2-1	13:04	5.89	11	4600	.09	236	19.9	3415 ± 29	3473 ± 8	1.6	2.0
B. 1-1	13:25	6.09	12	5400	.17	383	21.6	2424 ± 19	2628 ± 8	1.0	2.0
B. 2-1	13:44	6.46	12	3500	.07	213	24.2	2600 ± 27	2623 ± 8	2.0	1.9
BR. 2-1	14:03	6.21	12	2500	.05	868	23.6	558 ± 4	618 ± 29	?	1.9
A. 1-1	14:33	5.89	12	3300	.09	229	21.8	2626 ± 28	2653 ± 10	2.0	1.9
A. 2-1	14:55	5.82	13	4700	.17	315	22.0	2539 ± 28	2632 ± 9	1.2	2.0
A. 3-1	15:14	5.95	13	3800	.04	224	22.4	2670 ± 21	2657 ± 7	1.0	2.1
A. 4-1	15:33	6.58	11	5100	0.03	617	22.2	1512 ± 13	2409 ± 8	2.3	2.0
BR. 2-2	15:55	6.09	13	2700	.04	861	23.2	576 ± 5	580 ± 25	1.0	2.1
B. 3-1	16:16	6.11	12	5800	.07	819	22.6	1282 ± 9	2187 ± 6	2.4	2.0

check name

Offsets: 196-204 = 8.163 204-Bkg = ...040 204-206 ~ 2.006 206-207 = 1.005 206-208 = 2.008

Filename	Time	UO/U	196	206	f206 (%)	U ppm	Sensitivity	Age/Ma 206/238	Age/Ma 207/206	SBM (%)	10/mA
Alternatives		254/238 UO2/UO	196 Ref. Kcps	206 -cps-				Pb/U ratio	207/206		
		270/254	Kcps								
B. 4-1	16:35	5.62	14	7800	.08	835	23.5	1613 ± 10	2367 ± 8	2.3	2.0
B. 5-1	17:05	5.92	13	2900	.02	176	22.4	2634 ± 25	2659 ± 9	0.9	2.1
B. 6-1	17:35	5.74	14	6800	.07	731	21.8	1648 ± 14	2423 ± 9	1.0	2.1
BR. 2-3	17:54	5.82	14	2700	.01	833	23.1	576 ± 4	567 ± 25	± 0?	2.1
A. 5-1	18:25	5.56	14	4400	.06	273	20.9	2726 ± 18	2639 ± 10	1.0	2.1
A. 6-1	18:34	5.76	14	5100	.01	290	21.7	2741 ± 20	2671 ± 6	1.4	2.2
A. 7-1	18:54	5.94	14	4700	.05	274	23.1	2572 ± 19	2623 ± 7	0.9	2.2
A. 8-1	19:13	6.33	14	4400	.25	390	25.2	1643 ± 17	2531 ± 9	1.7	2.2
BR. 2-4	19:32	5.72	15	2700	.11	813	23.3	580 ± 4	563 ± 22	1.1	2.2
OGC. 3-1	19:51	5.77	14	5500	.07	230	22.7	3383 ± 23	3462 ± 5	1.1	2.2
A. 9-1	20:30	5.68	15	4500	.37	334	22.3	2114 ± 13	2586 ± 11	1.0	2.2
A. 10-1	20:50	5.76	14	4800	.06	264	22.6	2724 ± 29	2650 ± 8	1.7	2.2
A. 11-1	21:13	5.83	14	4300	.03	262	22.6	2513 ± 20	2620 ± 8	1.0	2.2
A. 12-1	21:41	6.01	14	6400	.18	424	23.2	2289 ± 14	2599 ± 6	1.2	2.2
BR. 3-1	22:02	5.71	15	2700	.02	823	22.6	582 ± 4	591 ± 19	1.1	2.2
A. 13-1	22:24	5.96	14	5700	.03	341	22.9	2503 ± 19	2637 ± 6	1.0	2.2
A. 14-1	22:44	5.92	14	7400	.12	589	23.3	1973 ± 12	2531 ± 6	2.9	2.2
A. 15-1	23:04	5.81	14	5100	.06	283	22.8	2694 ± 16	2656 ± 7	1.3	2.1
A. 16-1	23:28	5.97	15	3500	.15	256	25.3	1962 ± 17	2578 ± 9	2.0	2.2
BR. 3-2	23:48	5.66	15	2700	.04	834	22.5	585 ± 4	557 ± 21	1.2	2.2
A. 17-1	00:09	5.73	15	3300	0.32	189	23.1	2575 ± 19	2632 ± 10	1.3	2.2
A. 18-1	00:29	5.88	14	4800	.02	262	23.4	2683 ± 24	2653 ± 7	1.2	2.2
A. 19-1	00:48	5.83	15	3900	.05	232	23.5	2521 ± 18	2631 ± 7	1.5	2.1
A. 20-1	01:08	5.79	15	4300	.07	249	22.8	2557 ± 28	2648 ± 8	1.1	2.2
BR. 4-1	01:27	5.90	14	2800	.05	834	23.6	588 ± 4	539 ± 21	1.1	2.1
A. 21-1	01:52	5.94	15	4600	.15	282	24.1	2362 ± 21	2595 ± 7	1.5	2.2
A. 22-1	02:11	6.03	15	4600	.05	326	24.6	2027 ± 15	2533 ± 8	1.3	2.2
A. 23-1	02:30	5.81	16	3600	.09	217	24.9	2346 ± 23	2619 ± 9	1.0	2.2
A. 24-1	02:49	5.75	15	4700	.06	252	23.0	2728 ± 23	2631 ± 9	1.2	2.2
BR. 4-2	03:09	5.72	15	2800	.03	813	23.6	578 ± 3	609 ± 19	0.9	2.2
OGC. 4-1	03:33	5.64	16	5200	.08	194	23.4	3586 ± 31	3479 ± 8	1.7	2.2
A. 25-1	03:53	6.11	14	6400	.11	853	23.5	1222 ± 7	2138 ± 10	1.8	2.2
A. 26-1	04:12	5.68	15	5300	.05	285	23.0	2721 ± 18	2633 ± 6	1.0	2.2
A. 27-1	04:32	5.74	15	5600	.03	288	23.5	2763 ± 15	2643 ± 5	1.3	2.2
A. 28-1	04:51	5.54	16	4600	.01	248	22.7	2729 ± 17	2652 ± 9	1.1	2.2
BR. 4-3	05:12	5.64	15	2800	.02	808	22.9	597 ± 4	552 ± 18	1.3	2.2

check name

check name

Filename	Time	UO/U	196	206	f206 (%)	u	Sensit-ivity	Age/Ma	Age/Ma	SBM (%)	p/mA
		254/238	Keps	-cps-			206/238	207/206			
Alternatives		UO2/UO	Ref.				Pb/U ratio	207/206			
		270/254	Keps								
A.29-1	05:32	6.30	15	3600	.19	340	26.1	1500±24	2445±13	1.3	2.2
A.30-1	05:51	5.78	15	4200	.13	221	23.6	2684±28	2650±8	1.2	2.2
A.31-1	06:10	5.74	15	5300	.10	342	23.2	2309±14	2610±6	1.7	2.2
A.32-1	06:29	5.61	16	4600	.09	261	23.0	2599±18	2656±7	1.2	2.2
BR.4-4	06:49	5.70	16	2900	.04	803	23.7	588±4	594±21	1.3	2.2
A.33-1	07:09	5.72	15	4300	.06	223	23.3	2721±18	2648±7	1.2	2.2
A.34-1	07:28	5.73	16	5600	.15	311	23.6	2550±21	2618±8	1.0	2.2
A.35-1	07:48	5.52	15	4600	.03	255	23.1	2718±20	2663±10	2.9	2.1
A.36-1	8:12	5.72	15	4500	.05	240	23.1	2681±16	2649±6	1.6	2.2
BR.5-1	8:31	5.69	16	2900	.02	840	23.2	589±4	585±15	1.3	2.2
OC.5-1	8:50	5.78	16	4800	.09	178	24.3	3435±25	3467±7	1.5	2.2
———— FINISHED ————											

Offsets: 196-204 = ..... 204-Bkg = .....

..... 206-207 = ..... 206-208 = .....