

SHRIMP data acquisition logsheet

SHRIMP A or B

Zircon or Titanite

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
15/10/12	11-30	AISRF	McN	Serena + Adam/Serena
16/10/12	11-36			

Deadtime.....ns Kohler aperture...100? Retard...14.4 volts Resoln...4928

Primary O₂ on: epoxynA standardnA PostESA BM on std

Raster: Time (mins) 2.0/2.5 Aperture 110/120 No. of scans 8/7/6

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
Titanite	200*	204	Bk	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	5/10	5	5	7/5 ✓
Delay time (secs)	8	4	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					
Titanite	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	4.143	.040	~2.001	1.003	2.005

Standards

Zircon: BR266 206/238 age = 559 Ma; 903 ppm U
 TEM2 206/238 age = 416.78 +/- 0.33 Ma; U = variable
 OGC-1 207/206 age = 3467 +/- 3 Ma; U = variable
 CZ3 206/238 age = 561.5 Ma; 551 ppm U
 M257 206/238 age = 561.3 Ma; 840 ppm U

Titanite: Khan 206/238 age = 522.2 Ma; 700 ppm U
 ORBA 207/206 age = 2687 +/- 5 Ma; 150-220 ppm U (ave = 188 ppm)
 2691.5 +/- 1.1 140 ppm U

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

11-30

x →

Filename	Time	UO/U	196 Kcps	206 -cps-	f206 (%)	U ppm	Sensit. ivity	Age/Ma 206/238 Pb/U ratio	Age/Ma 207/206	SBM (%)
		254/238 UO2/UO 270/254	Ref. Kcps			254/270 Kcps	7 Kcps			
KH. 5-3	10:33	0.93	740	1100	.53	700	6.2	.147	530 ± 76	0.9
ORBA. 2-1	11:00	1.00	860	1700	1.4	250	7.3	0.94	2668 ± 15	0.8
KH. 1-4	11:22	0.92	700	1100	.26	704	5.8	.155	630 ± 37	0.5
ORBA. 2-2	11:56	0.95	860	1700	1.6	259	7.6	0.94	284 ± 15	0.6
C. 20-2	12:26	.89	1700	2.45	174	1.9	1.00		2550 ± 28	0.6
C. 20-3	12:56	0.94	750	1500	2.31	163	1.8	0.94	2526 ± 33	0.6
KH. 14-1	13:22	0.95	750	1100	2.14	647	5.7	.155	509 ± 75	0.8
ORBA. 2-3	13:47	0.94	750	1700	1.27	293	7.6	.95	2684 ± 20	0.7
C. 1-2	14:16	.84	630	710	15.0	23	.012	.89	2463 ± 38	0.4
C. 3-2	14:43	.89	610	810	1.38	27	.014	.83	2459 ± 28	0.8
C. 3-3	15:11	.85	640	950	.66	29	.014	.86	2521 ± 23	1.1
C. 7-2			skipped →							
KH. 5-4	15:44	0.90	780	1100	1.75	666	6.1	.144	640 ± 69	0.8
C. 14-2	16:14	0.94	760	1700	1.52	166	1.5	.944	2576 ± 19	0.7
C. 14-3	16:40	0.89	740	1600	0.96	164	1.5	.941	2566 ± 15	1.1
C. 14-4	17:11	0.90	920	920	2.44	111	2.6	.920	2557 ± 27	0.7
C. 15-2	17:29	0.92	600	1100	2.02	42	1.1	.916	2512 ± 28	0.6
KH. 15-1	18:09	0.90	830	0.76	673	4.5	.153		451 ± 93	17.5
KH. 16-1	18:37	0.90	660	1000	0.74	717	5.6	.147	476 ± 70	4.8
ORBA. 2-4	19:05	0.94	770	1700	1.32	285	7.6	.944	2661 ± 15	0.6
C. 21-1	19:42	0.88	590	1400	1.18	55	0.039	.875	2479 ± 17	0.6
C. 21-2	20:09	0.83	580	1000	6.83	41	0.035	1	2519 ± 114	0.9
C. 22-1	20:41	0.90	540	1700	5.05	18	0.071	.944	2640 ± 80	1.0
C. 23-1	21:07	0.96	570	880	6.22	151	2.3	.951	2588 ± 59	0.7
C. 24-1	21:36	0.87	660	600	1.01	15	0.007	.882	2508 ± 27	1.0
KH. 16-2	22:03	0.89	710	1100	0.78	679	5.7	.157	460 ± 74	1.3
C. 25-1	22:31	0.84	520	720	8.5	37	0.029	.878	2538 ± 42	0.5
C. 25-2	22:57	0.83	500	210	12.9	16	0.036	1.05	2225 ± 143	0.6
C. 26-1	23:34	0.92	750	550	1.73	84	1.6	.901	2548 ± 39	1.0
KH. 17-1	00:11	0.90	660	1000	0.58	710	5.6	.147	523 ± 4	1.0
		Always	6	11-36	reduced to	7 scans				
KH. 1-1	00:46	0.89	620	1000	0.32	743	5.6	.151	552 ± 81	1.9
ORBA. 2-1	01:18	0.92	730	1300	1.37	249	8.1	1	2682 ± 19	1.7
B. 1-1	02:02	1.08	87	50	2.53	7	0.008	1.25	2896 ± 131	11.3
B. 2-1	02:33	1.30	110	67	2.11	9	0.008	1.11	2613 ± 121	9.3
C. 15-1	03:03	0.87	760	1100	0.81	74	0.49	1.14	3078 ± 17	0.5

Offsets: 196-204 = 4.143 204-Bkg = .040 204-206 = ~2.001 206-207 = 1.003 206-208 = 2.005

* Changed raster from 110/2.0 to 120/2.5

4-1, 2kh-1 ORBIT

should be labeled as 6-1

Filename	Time	UO/U	196	206	f206	U	Sensitiv	Age/Ma	Age/Ma	SBM	
Alternatives		254/238	Keps	-cps-	(%)	ppm	ivity	206/238	207/206	(%)	
		UO2/UO	Ref.			254/270	7 kcps	Pb/U ratio	207/206		
		270/254	Kcps			Keps		206/270			
C.16-1	03:28	0.87	670	930	0.64	71	0.41	1.162	3081±22	1.6	
C.17-1	07:59	0.92	730	1300	0.39	82	0.39	1.083	3051±15	1.1	
KH.1-6	04:24	0.88	610	990	0.52	741	5.5	1.546	504±50	2.1	
C.18-1	04:49	0.91	740	1200	0.92	88	0.61	1.090	3115±15	1.2	
C.19-1	05:12	0.87	750	810	1.23	61	0.49	1.157	3076±22	0.6	
C.20-1	05:35	0.83	760	1200	0.39	89	0.74	1.200	3147±16	0.7	
C.21-1	05:59	0.89	660	1900	0.47	130	0.54	1.117	3081±10	0.5	
C.22-1	06:22	0.89	730	620	0.92	54	0.55	1.169	3173±26	0.6	
KH.1-7	06:46	0.87	570	940	0.24	752	5.3	0.154	616±45	0.8	
ORBA.2-3	07:10	0.92	710	1200	1.30	244	7.4	0.923	2663±18	0.6	
C.23-1	07:33	0.85	700	1400	0.43	97	0.52	1.166	3074±11	0.5	
C.24-1	8:02	.89	680	670	.72	55	0.40	1.175	3114±23	0.5	
C.25-1	8:26	.94	630	570	1.27	54	0.39	1.163	3091±23	0.8	
C.26-1	8:49	.91	650	570	.38	56	0.50	1.187	3222±17	1.5	
C.26-2	9:14	.90	660	550	.68	54	0.49	1.170	3185±26	0.9	
KH.4-11	9:38	.91	610	990	.45	731	5.3	0.155	568±54	1.2	
SAMPLE CHANGE → 12-23 (R) + 12-33 (L) → HAS TNT STDS!!!											
SWITCH TO 6 SCANS INTO STAGE											
12-33	KH.1-1	10:46	.96	720	700	1.66	628	9.4	0.143	460±185	2.3
	KH.1-2	11:04	.96	740	730	1.70	612	9.0	0.146	453±107	1.7
	ORBA.1-1	11:25	1.00	750	1400	1.55	253	7.1	0.933	2632±23	1.4
	" 1-2	11:45	.94	770	1500	0.99	258	7.4	.937	2706±23	1.2
12-23	A.1-1	12:07	0.91	730	2000	1.35	147	0.68	.952	2566±17	0.8
"	A.2-1	12:38	0.88	820	360	5.1	28.4	0.34	1.2	3159±44	1.5
"	A.3-1										
high 204 - aborted											
COMPLETED ALL TNT'S in 12-23A →											
SAMPLE CHANGE = 12-25 REPLACES 12-23											
12-33	KH.1-3	13:54	1.00	700	670	1.38	584	8.5	.152	640±96	1.7
	KH.2-1	14:14	.93	700	1000	.74	680	5.6	.145	509±76	2.1
	ORBA.1-3	14:34	.93	740	1300	1.11	241	6.8	.929	2683±21	1.0
12-25	A.1-1	14:57	.82	710	460	3.86	23	.037	.868	2422±61	1.2
had did sample change (w/ rack) → HV NOT turned off											
12-25	A.2-1	15:35	.83	650	600	3.24	37	6.8	.845	2428±69	1.2

Offsets: 196-204 = 4.143 204-Bkg = .040 204-206 = -2.001 206-207 = 1.003 206-208 = 2.005

Data acquired at 50:20 should be discarded.

Date 16/10/2012

Mount

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Tho 4/9

file (3-1)

Filename	Time	UO/U	196	206	f206	U	Sensit-	Age/Ma	Age/Ma	SBM
		254/238	Kcps	-cps-	(%)	ppm	ivity	206/238	207/206	(%)
Alternatives		UO2/UO	Ref.			254/270		Pb/U ratio	207/206	
		270/254	Kcps			Kcps		206/270		
A3-1	16:13	.81	560	190	383	10.1	9.7	.86	2733±738	0.6
A4-1	16:47	.87	510	180	6.32	12.1	1.4	.857	2547±1618	0.6
A5-1	17:37	.80	720	340	6.25	23.4	8.5	.918	2500±81	0.4
A6-1	17:59	.83	760	380	2.88	18.4	3.5	.863	2552±53	0.5
KH.3-1	18:25	.91	670	1000	0.79	701.2	5.4	.147	481±75	0.5
A7-1	19:00	.83	760	280	6.19	19.4	0.09	.933	2486±90	0.4
A8-1	19:40	.86	670	1000	1.96	74.8	0.24	.833	2522±34	0.9
A9-1	20:13	.84	680	640	2.34	31.7	0.05	.888	2573±33	0.5
A10-1	20:45	.84	740	330	4.90	15.4	0.02	.891	2504±107	0.8
A11-1	21:17	.82	680	500	2.50	35.0	0.11	.877	2549±45	0.5
KH.2-2	21:43	.90	650	1000	0.60	755	6.0	.142	513±94	0.9
ORSA.1-4	22:06	1.00	710	1400	1.05	266	7.1	.933	2697±21	0.4
A.12-1	22:28	.83	760	200	11.2	8	0.01	1.000	2272±208	0.7
A.13-1	23:08	.80	660	330	4.66	19	0.04	.891	2552±88	0.8
A.14-1	23:34	.86	570	290	6.57	27	0.08	.878	2328±113	0.4
A.15-1	23:56	.81	650	260	11.81	12	0.01	.962	2048±301	12
A.16-1	00:17	.83	810	470	6.04	22	0.05	.903	2278±126	0.7
KH.2-3	00:39	.90	650	970	.71	696	5.5	.149	444±75	0.9
A.1-1	01:02	.87	730	1200	0.85	31	0.01	.857	2532±18	1.3
A.2-1	01:23	.92	810	1100	1.33	54	0.15	.916	2510±27	0.7
A.3-1	01:43	.88	770	1300	1.09	105	0.58	.866	2469±23	1.4
A.4-1	02:03	.88	800	1400	1.76	99	0.50	.875	2514±30	2.8
A.5-1	02:23	.88	740	1200	1.00	77	0.22	.800	2520±25	1.3
KH.2-4	02:45	.90	650	1000	0.27	729	5.8	.147	617±43	0.9
A.6-1	03:07	.88	720	740	1.76	30	0.03	.840	2450±40	3.3
A.7-1	03:28	.84	820	990	1.90	90	0.79	.900	2451±27	0.8
A.8-1	03:49	.88	730	2000	0.93	101	0.18	.833	2503±19	3.6
A.9-1	04:12	.85	810	1500	0.93	98	0.40	.882	2505±18	2.3
A.10-1	04:33	.88	800	1300	0.95	76	0.25	.866	2509±17	1.9
KH.2-5	04:54	.90	630	990	0.62	750	5.7	.147	550±57	3.1
ORSA.1-5	05:15	.92	610	1200	1.43	281	6.5	.923	2707±26	2.7
A.11-1	05:36	.88	780	2500	0.50	170	0.65	.833	2499±16	2.0
A.12-1	05:56	.89	790	2300	3.34	147	0.58	.884	2571±24	2.1
A.13-1	06:16	.87	770	2700	5.83	98	0.13	.931	2529±27	1.0
A.14-1	06:40	.90	760	876	1.03	52	0.16	.870	2506±32	1.5
A.15-1	07:01	.90	760	1600	0.84	73	0.13	.842	2495±19	1.9

1233
1233

Offsets: 196-204 = 204-Bkg = 204-206 = 206-207 = 206-208 =
A.16-1 07:44 .87 800 1800 0.75 80 0.16 .857 2498±11 1.4
A.17-1 08:04 .83 760 880 1.78 107 1.3 .880 2501±27 0.7