

SHRIMP data acquisition logsheet

SHRIMP A or **B**

Mineral = **ZR**

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
20/4/09	09-10 to 09-13	Mark Doyle	McW	Anne

Deadtime...**2.05**ns Kohler aperture...**50?** Retard...**14.1**volts Resoln...**4739**

Primary on steel: O<sub>1</sub> ..... Bits/nA O<sub>2</sub> ..... Bits/nA

Primary O<sub>2</sub> on: epoxy...**0.65**nA standard...**0.93**nA PostESA BM on std...**16**

Raster: Time (mins) ...**3.0** Aperture...**100** No. of scans...**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	3	12	4	2	12	3	2	2		
Peak centring time (secs)	3	-	-	85	-	-	3	3	2		
<b>Titanite/Perovskite</b>	200	204	Bk	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		
Peak centring time (secs)	3	-	-	4	-	-	2	3	3		
<b>Rutile</b>	192	204	Bk	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		
Peak centring time (secs)	3	-	-	4	-	-	2	3	3		
<b>Monazite</b>	202	203	204	Bk	206	207	208	232	254	264	270
Count time (secs)	2	10	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
Peak centring time (secs)	1	2	-	-	4	-	2	2	2	2	2
<b>Xenotime</b>	194	204	Bk	206	207	208	238	248	254		
Count time (secs)	2	10	10	10/20	30/10	5	5	5	2		
Delay time (secs)	8	3	1	4	2	1	3	2	2		
Peak centring time (secs)	1	-	-	3	-	-	4	3	2		

Offsets						
<b>Zircon/Badd.</b>	196-204	204-Bk	204-206	206-207	206-208	
Expected offset	8.170	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets	<b>8.156</b>	<b>0.045</b>	<b>~2.007</b>	<b>1.004</b>	<b>2.006</b>	
<b>Titanite/Perovskite</b>	200-204	204-Bk	204-206	206-207	206-208	
Expected offset	4.136	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						
<b>Rutile</b>	192-204	204-Bk	204-206	206-207	206-208	
Expected offset	12.100	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						
<b>Monazite</b>	202-203	203-204	204-Bk	204-206	206-207	206-208
Expected offset	1.600	1.110	0.045	2.001/9	1.001/5	2.001/9
Setup offsets						
<b>Xenotime</b>	194-204	204-Bk	204-206	206-207	206-208	
Expected offset	10.143	0.045	2.001/9	1.001/5	2.001/9	
Setup offsets						

\* Switched from 7 oceans to 6 oceans; Raster aperture reduced from 110 to 100  $\mu\text{m}$ .

NB: BR = C23 !!

Date 20/4/09 Mount 09-10 Page no. 1

Filename	Time	UO/U	196	206	f206	U	Sensit-	Age/Ma	Age/Ma	Check	
		254/238	Kcps	-cps-	(%)	ppm	ivity	206/238	207/206	offsets	
Alternatives		UO2/UO	Reference			254/270		Pb/U ratio	207/206		SBM %
		270/254	Kcps			Kcps					
0911 * → BR. 1-1	10:28	7.10	6.0	610	.07	551	18.5	561±8	538±43	✓	16.5
" BR. 1-2	10:47	7.20	5.4	600	-	617	17.2	539±7	631±41	✓	11.8
" BR. 1-3	11:09	7.26	5.2	600	-	622	17.2	550±8	619±53	✓	7.2
" Plal. 1-1	11:28	4.49	9.2	190	-	57	18.0	1832±38	2044±38	✓	2.5
" BR. 1-4	11:48	7.31	5.5	620	.04	614	18.5	536±7	526±44	✓	4.6
0910 E. 1-1	12:18	7.19	5.1	590	.13	192	17.1	1654±30	1817±33	✓	2.0
" E. 1-2	12:30	7.25	5.5	750	.15	208	18.1	1774±40	1796±29	✓	5.5
" BR. 1-5	12:55	6.99	4.8	480	.05	644	15.2	488±6	577±49	✓	3.7
" BR. 1-6	13:14	7.38	5.3	610	-	633	18.3	525±7	553±39	✓	3.7
" A. 1-1	13:35	6.86	5.2	130	.19	43	16.4	1726±63	1864±65	✓	2.5
" D. 1-1	13:59	6.29	6.2	190	2.19	51	16.4	1870±51	1789±108	✓	8.1
" D. 2-1	14:28	6.80	5.7	550	.68	272	17.1	1097±16	1852±49	✓	5.1
" BR. 1-7	14:47	7.46	5.4	620	.05	615	18.4	533±7	716±50	✓	5.2
" C. 1-1	15:12	7.10	4.9	170	.25	58	15.7	1709±51	1706±56	✓	2.2
" C. 1-2	15:31	7.08	5.6	180	.30	49	17.6	1805±65	1736±68	✓	5.2
" G. 1-1	15:54	7.51	5.1	230	.30	65	18.0	1759±62	1783±44	✓	
" G. 1-2	16:13	6.63	5.5	170	.33	53	15.7	1757±51	1773±53	✓	5.7
" BR. 1-8	16:29	7.32	5.3	570	0.00	643	17.7	496±NaN	743±NaN	✓	3.2
" BR. 1-9	17:05	7.00	5.2	510	-0.22	620	15.9	500±10	593±65	✓	6.9
" I. 1-1	17:27	6.55	6.6	76	-0.75	20.3	18.1	1780±75	1944±101	✓	8.3
" I. 1-2	17:49	6.54	5.7	340	.15	97	15.7	1915±52	1765±43	✓	7.1
" J. 1-1	18:15	6.88	6.0	38	2.88	10.1	17.4	1826±122	1439±451	✓	4.8
" BR. 1-10	18:38	7.16	5.9	600	.13	589	18.9	523±7	538±52	✓	5.3
" J. 2-1	19:20	7.26	5.4	150	.17	43	17.6	1705±64	1797±59	✓	3.3
" J. 3-1	19:33	6.58	5.8	260	0.20	71	15.9	1914±70	1801±51	✓	8.0
" F. 1-1	20:01	6.77	6.1	110	0.65	30	17.7	1787±64	1714±92	✓	
" F. 1-2	20:27	7.06	5.9	999	1.54	26	18.0	1758±72	1557±129	✓	7.6
" BR. 1-11	21:03	7.11	6.0	590	-0.13	619	18.6	490±6	651±45	✓	5.0
" K. 1-1	21:22	7.87	3.5	370	0.79	146	12.8	1756±58	1832±64	✓	3.7
" L. 1-1	22:02	6.72	6.3	86	.10	21	17.8	1941±81	1714±55	✓	7.1
SAMPLE CHANGE → HV off											(CONT.)

Offsets: 196-204 = 8.156 204-Bkg = 0.065 204-206 = ~~1.004~~ 206-207 = 1.004 207-208 = 1.002

~2.007

Mislabeled! Should be 09-10

STK  
UNK  
BR 0910. 1-2  
0910 G. 1-2

\* Note: not C23 → Phalab.

NB: BR = C23

Date 20/4/09

Mount 09-13

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0913

Filename	Time	UO/U	196	206	f206	U	Sensit-	Age/Ma	Age/Ma	Check
		254/238	Kcps	-cps-	(%)	ppm	ivity	206/238	207/206	offsets
Alternatives		UO2/UO	Reference			254/270		Pb/U ratio	207/206	
		270/254	Kcps			Kcps				
*BR.1-1	22:53	4.11	9.5	200	0.52	60	15.3	2033±1	2051±47	✓ 3.7
BR.1-1A	23:13	6.85	5.8	580	-0.01	573	16.0	560±147	531±147	✓ 13.8
BR.1-2	23:39	6.77	5.7	600	0.04	583	15.5	580±8	570±55	✓ 14.6
<del>BR.1-1</del>	00:06	7.84	5.2	500	.17	143	18.1	1834±56	1739±32	✓ 4.7
B.1-2	00:26	6.64	6.2	160	-0.5	43	16.5	1773±56	1904±75	✓ 10.4
C.1-1	00:52	6.68	5.9	110	2.5	430	16.3	1775±75	1779±167	✓ 6.8
BR.1-3	01:18	7.00	5.3	590	-0.01	623	15.3	564±6	657±48	✓
BR.1-4	01:42	6.86	6.0	560	-0.04	551	16.7	541±7	661±38	✓ 10.0
E.1-1	02:10	8.95	4.2	1200	1.57	1258	17.3	503±6	1824±37	✓ 3.5
E.2-1	02:32	7.02	6.5	590	1.03	516	19.9	545±10	1707±80	✓ 2.6
F.1-1	02:54	8.24	5.2	600	1.21	386	18.6	728±14	1886±46	✓ 7.2
BR.1-5	03:17	6.96	5.6	620	-0.02	595	16.0	578±147	657±147	✓ 7.1
G.1-1	03:54	7.06	5.7	69	0.00	200	16.4	1622±147	1884±147	✓
G.1-2	04:16	6.84	5.0	230	0.44	70	14.0	1874±52	1816±61	✓ 4.5
H.1-1	04:40	7.43	4.8	82	5.65	24	15.1	1713±87	1564±388	✓ 2.7
BR.1-6	05:01	7.23	5.3	620	0.06	617	15.7	565±9	876±61	✓ 4.3
J.1-1	05:30	5.31	10	100	112	21.0	19.2	1704±83	1259±505	✓ 14.02
C.1-1	06:03	7.39	5.3	1200	0.00	366	16.9	1692±147	1789±147	✓ 2.4
C.1-2	06:23	7.10	5.4	1200	0.10	326	17.1	1722±23	1799±21	✓ 4.8
BR.1-1	06:52	7.05	5.8	610	0.27	600	16.9	537±7	473±56	✓ 3.2
<del>BR.1-1</del>	07:20	6.88	5.4	200	0.24	56	16.6	1774±49	1801±69	✓ 3.2
A.1-2	07:44	6.72	6.4	140	-0.16	36	17.0	1808±62	1874±66	✓ 6.9
D.1-1	08:08	8.24	5.1	260	14.91	1362	18.5	82±2	1746±289	✓ 4.4
BR.1-2	08:27	7.01	5.8	630	-	600	16.4	562±8	491±42	✓ 3.6

Mislabelled as A.1-1

Offsets: 196-204 = 8.156 204-Bkg = 0.045 204-206 = 12.007 206-207 = 1.004 207-208 = 1.002