

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 20/1/96 UWA Mount No. 95-36 Whose sample? Weatherly + Buick Operator(s) Mc N + YUMIN  
~~IR + Alanus~~

Indicate any change to the following:		196	204	bkg	206	207	208	238	248	254
Precambrian	Count time (secs):	2	10	10	10	30	10	5	5	2
	Delay time (secs):	7	3	1	2	1	1	3	2	2
Phanerozoic	Count time (secs):	2	10	10	10	10	10	5	5	2
<del>uran</del>	Delay time (secs):	7	3	1	2	1	1	3	2	2

expected 196-204 = 8.170 amu expected 204-bkg = 0.040 amu Dead-time = 32 nanosecs  
 actual 196-204 = 8.164 actual 204-bkg = 0.040 expected resolution = >4200  
 Primary = 2.1 nA PESABM = 43 pA actual resolution = 4780  
 expected Primary : PESABM ≈ 50:1 actual Primary : PESABM = 49

17/1/96 Comments: 1° too unstable to operate (tested 8.00 - 11.30 am)  
 → AK pulled 1° apart → needle valve problem??

20/1/96 → problems with unstable 1° : adjusted div P → 1800  
 300 → dropped ARC  
 + adjusted div current

⊗ Air con. alarm went on : T = 24.3°C !!  
 ⊗ 3min raster @ 100 μ

Rejection over-ride Sample/Std ID Time - printout UO/U 196 cps 206 cps U ppm 204Pb ppb f206 % Age ±1σ (Ma) 206/238 207/206 Corr.

196	std 1-1	13:07	6.35	20.5	1902	220	1.5	.24	571 ± 1	488 ± 17	208
	1° unstable → ARC dropped out; restarted + adjusted div pressure.										
207	std 1-2	14:28	6.10	17.1	1705	220	2.1	.02	572 ± 1	519 ± 18	208
196, 208	std 1-3	14:50	6.04	17.1	1714	221	-0.1	-	593 ± 1	557 ± 16	NONE
del 1st scan, drop in 1°.											
Sample C = 94002	C.1-1	15:13	6.09	17.3	4.0K	72.0	3.3	.08	3304 ± 10	3229 ± 5	204
del 1st scan, drop in 1°.	std 1-4	15:34	5.74	17.1	1573	245	1.2	.04	585 ± 1	596 ± 18	208
Sample B = 9306/032	B.1-1	16:06	6.14	15.9	1690	58.0	3.5	.25	2014 ± 7	2085 ± 13	204
ARC DROPPED OUT	→ restarted ⇒ DUO = 380										
del last 2 scans, drop in 1°.	std 1-5	17:12	6.18	15.6	1652	223	-0.2	-	573 ± 1	607 ± 16	NONE
	B.2-1	17:31	5.87	18.6	2868	85.0	3.6	.14	2272 ± 7	2286 ± 8	204
	B.3-1	17:55	6.39	17.5	3100	125.5	34.5	1.68	1419 ± 3	1826 ± 19	204

Cal. Ave n=10 (14/3)  
 Zr/U = 1.86096  
 UO/U = 6.05220  
 Pb\*/U = 0.188604 error % = 4.1733

Cn = 9.

(15/3) cal Ave n=9 error = 1.6892%  
 Zr/U = 1.85438  
 UO/U = 6.04438  
 Pb\*/U = 0.188899

Rejection over-ride    Sample/Std ID    Time - printout    UO/U    196 cps (K)    206 cps    U ppm    204Pb ppb    f206 %    Age ±1σ (Ma) 206/238 207/206    Corr.

Rejection over-ride	Sample/Std ID	Time - printout	UO/U	196 cps (K)	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238 207/206	Corr.	
	B. 4-1	18:17	7.19	13.2	4.0K	320	81.3	3.25	698 ± 1    1953 ± 20	204	
206, 238, 254	std 1-6	18:39	6.09	17.1	1806	225	1.6	.02	598 ± 1    536 ± 17	208	
	B. 5-1	19:07	6.09	17.9	4191	147	0.3	.01	1834 ± 4    1840 ± 7	204	
	B. 6-1	19:34	6.05	17.3	2163	82	4.8	.13	1803 ± 5    1793 ± 14	200	
	B. 7-1	19:58	6.39	16.9	951	27	0.4	.05	2048 ± 10    2060 ± 18	200	
del 1 & 7 scan	196, 206, 238, 248, 254	S/1-7	20:21	6.05	17.6	1841	230	0.9	.03	590 ± 1    585 ± 17	208
Sample C.	196, 238	C 2-1	20:46	6.16	18.4	5791	93	4.6	.09	3328 ± 9    3238 ± 4	204
del last for del 7th scan.	204	C 3-1	21:09	6.28	16.5	11291	235	3.8	.04	2905 ± 5    3246 ± 3	204
del 5th scan.	196, 206, 207, 238, 248, 254	S/1-8	22:09	6.04	16.9	1697	226	0.4	.03	582 ± 1    613 ± 17	208
	208	C 4-1	22:36	6.	16.4	2080	43	3.1	.14	3184 ± 13    3224 ± 7	204
del last scan		C 5-1	23:06	6.74	14	18136	1228	287	2.1	934 ± 1    2250 ± 7	204
Due P adjusted to 390.	206	S/3-1	23:47	5.94	16.3	1716	236	0.7	.2	616 ± 1    530 ± 18	208
del 1st 206	196, 204, 207, 208, 248	C 6-1	0:15	5.97	20.3	5239	90	2.2	.05	3170 ± 8    3242 ± 4	204
	196, 238, 254	C 7-1	0:38	6.55	16.4	6203	95	1.3	.03	3253 ± 8    3214 ± 4	204
check?	204	C 8-1	1:04	6.41	17	4846	86	1.9	.05	2956 ± 8    3234 ± 4	204
1° dropped 40% during analysis	206, 248, 208	S/3-2	1:32	5.85	16.2	1708	250	1.3	.07	614 ± 1    598 ± 17	208
1° Vary more than 40%	238	C 9-1	2:01	6.08	15.4	4938	95	-		3444 ± 10    3256 ± 4	<del>204</del>