

UWA SHRIMP DATA LOG

Date: 6/8/02 UWA Mount No.: B-29 Whose sample?: Mat K Operator(s): IF + AP

Indicate any change to the following: 196 204 bkg 206 207 208 238 248 254 ^{196 HfO₂} 270
Precambrian Count time (secs): 2 7 7 7 20 5 5 3 2 2
Phanerozoic* Delay time (secs): 2 3 1 2 1 1 3 2 2 8
 Steel: Wein volts / nA = 87/13 for O⁻; = 62/3.1 for O₂⁻; = 51/22 for NO⁻
 dead-time = 24 nanosecs expected resolution = >4200 actual resolution = 4600
 aperture = 100 microns retardation lens = 0 volts
 Expected offsets (amu): 196-204 = 8.170; 204-bkg = 0.045; 204-206 = 2.000; 206-207 = 1.000; 206-208 = 2.000
 Actual: 196-204 = 8.170 204-bkg = 0.045 204-206 = 2.000
 206-207 = 1.000 206-208 = 2.000
 Primary-epoxy = 3.1 nA Primary-CZ3 = 4.2 nA PESABM-CZ3 = 72 pA
 Raster time (mins): 2 Raster aperture (microns): 50 No. of scans: 5

Comments: Sensitivity ~ 19.
 - 10 stable but slowly drifting down
 - NB: After 1st crash ages appear to be slightly discordant of prior to crash

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 Kcps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238	207/206	Offsets OK?
	<u>C23.7-1</u>	<u>18:25</u>	<u>7.21</u>	<u>22</u>	<u>2500</u>	<u>238</u>	<u>-ve</u>	<u>-ve</u>	<u>572 ± 4</u>	<u>684 ± 32</u>	<u>✓</u>
	<u>A.39-1</u>	<u>18:42</u>	<u>6.93</u>	<u>23</u>	<u>1600</u>	<u>19.6</u>	<u>1.1</u>	<u>.14</u>	<u>3524 ± 57</u>	<u>3437 ± 13</u>	<u>✓</u>
	<u>A40-1</u>	<u>18:58</u>	<u>7.23</u>	<u>23</u>	<u>2800</u>	<u>38.6</u>	<u>0.9</u>	<u>.07</u>	<u>3099 ± 42</u>	<u>3103 ± 5</u>	<u>✓</u>
	<u>A.41-1</u>	<u>19:13</u>	<u>7.08</u>	<u>23</u>	<u>3800</u>	<u>52.9</u>	<u>-ve</u>	<u>-ve</u>	<u>3091 ± 26</u>	<u>3054 ± 8</u>	<u>✓</u>
	<u>A.42-1</u>	<u>19:28</u>	<u>7.29</u>	<u>22</u>	<u>2300</u>	<u>32.1</u>	<u>0.04</u>	<u>.04</u>	<u>3045 ± 46</u>	<u>3072 ± 9</u>	<u>✓</u>
	<u>A.43-1</u>	<u>19:44</u>	<u>7.33</u>	<u>22</u>	<u>1800</u>	<u>25.9</u>	<u>0.6</u>	<u>-.07</u>	<u>2965 ± 41</u>	<u>3061 ± 13</u>	<u>✓</u>
	<u>C2.7-2</u>	<u>19:59</u>	<u>7.14</u>	<u>22</u>	<u>2400</u>	<u>241</u>	<u>-ve</u>	<u>-ve</u>	<u>556 ± 6</u>	<u>570 ± 26</u>	<u>✓</u>
	<u>A.44-1</u>	<u>20:15</u>	<u>7.28</u>	<u>22</u>	<u>2000</u>	<u>30.8</u>	<u>0.2</u>	<u>0.02</u>	<u>2955 ± 00</u>	<u>3080</u>	<u>✓</u>

¹⁹⁶ = 4.0 nA

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 Kcps	206 cps	U ppm	204Pb ppb	f206 %	Age $\pm 1\sigma$ (Ma)	Offsets OK?	
									206/238	207/206	
	A-45-1	20:30	7.22	19	4000	68.4	1.6	0.07	2975 ± 26	3067 ± 8	✓
	A-46-1	20:45	7.28	20	2500	41.0	0.5	0.04	2975 ± 67	3056 ± 10	✓
$I^0 = 3.8 \text{ nA}$	A-47-1	20:59	7.11	19	890	14.3	0.1	0.02	3200 ± 58	3324 ± 17	✓
	A-48-1	21:14	6.82	19	1400	27.1	-ve	-ve	2943 ± 40	3078 ± 15	✓
3.7 nA	C2.1-1	21:32	7.33	18	1900	230	0.5	0.05	551 ± 5	550 ± 35	✓
	A-49-1	21:47	7.37	17	1500	28.8	-ve	-ve	2944	3084	✓
3.5 nA	A-50-1	22:05	7.29	17	840	14.6	2.2	0.44	3185 ± 59	3271 ± 22	✓
	A-51-1	22:19	7.74	16	1200	23.6	1.9	0.27	2866 ± 45	2977 ± 19	✓
	A-52-1	22:34	7.63	15	750	14.7	1.4	0.30	3000 ± 60	3036 ± 23	✓
3.4 nA	A-53-1	22:52	7.62	15	1200	20.9	3.0	0.40	3261 ± 54	3366 ± 15	✓
	A-54-1	23:07	7.92	15	2900	56.9	0.8	0.05	2956 ± 35	3098 ± 5	✓
	C2.1-2	23:22	7.04	16	1600	233	0.8	0.07	532 ± 5	584 ± 43	✓
	A-55-1	23:37	7.66	15	1800	37.5	2.4	0.20	2959 ± 38	3138 ± 11	✓
	A-56-1										
	Computer crash GPIB error HVCI driver \rightarrow Primary column restart computer										
3.2 nA	C2.3-1	00:18	7.15	16	1600	236	-ve	-ve	533 ± 4	539 ± 28	✓
	A-56-1	00:34	7.25	15	1000	23.3	1.6	0.23	2875 ± 51	3046 ± 20	✓
	A-57-1	00:50	7.23	15	1400	38.1	0.3	0.03	2612 ± 59	3014 ± 12	✓
3 nA	A-58-1	01:05	9.25	13	1800	53.8	1.9	0.19	1939 ± 25	3057 ± 13	✓
3.2 nA	A-59-1	01:19	7.43	13	3100	83.2	2.4	0.10	2724 ± 27	3056 ± 9	✓
	A-60-1	01:35	7.78	14	610	45.4	1.8	0.12	3072 ± 36	3318 ± 12	✓
	C2.3-2	01:51	7.22	15	1500	236	0.1	0.01	527 ± 0	578	✓
	A-61-1	02:07	7.97	13	790	18.4	1.4	0.25	2839 ± 66	3106 ± 18	✓
	A-62-1	02:21	7.56	13	1400	32.6	0.9	0.09	2896 ± 45	3062 ± 13	✓
	A-63-1	02:37	7.92	13	700	15.3	0.8	0.18	2944 ± 76	3051 ± 23	✓

Rejection over-ride	Sample/Std ID	Time - printout	UO/U	196 Kcps	206 cps	U ppm	204Pb ppb	f206 %	Age ±1σ (Ma) 206/238	207/206	Offsets OK?
	A.64-1	02:51	7.66	14	1500	37.0	1.6	0.15	2775 ± 54	3067 ± 14	✓
	A.65-1	03:06	<u>8.01</u>	13	910	20.3	4.3	0.67	2963 ± 56	3150 ± 23	✓
	C23-3	03:21	<u>8.12</u>	13	1600	250	-ve	-ve	523 ± 4	571 ± 33	✓
	A.66-1	03:37	7.42	14	1700	42.2	1.8	0.15	2808 ± 40	3064 ± 14	✓
	A.67-1	03:53	7.76	13	1100	23.7	2.7	0.37	2967 ± 51	3145 ± 18	✓
	A.68-1	04:09	7.42	14	1100	24.5	1.6	0.20	3121 ± 52	3297 ± 16	✓
	A.69-1	04:24	7.59	13	1560	34.8	1.6	0.15	2923 ± 44	3071 ± 14	✓
	A.70-1	04:39	7.51	13	2200	48.0	1.8	0.11	3168 ± 72	3343 ± 10	✓
	C22-1	04:54	7.25	14	1500	241	0.0	0.00	526 ± 6	501 ± 31	✓
	A.71-1	05:14	7.35	13	1500	40.2	2.6	0.22	2821 ± 38	3052 ± 13	✓
	A.72-1	05:28	7.47	13	3600	90.6	4.4	0.17	2834 ± 34	3085 ± 8	✓
	A.73-1	05:43	7.68	13	3400	85.0	3.3	0.13	2817 ± 27	3078 ± 10	✓
	A.74-1	05:58	<u>8.09</u>	13	720	16.8	2.0	0.39	2857 ± 64	3000 ± 38	✓
	A.75-1	06:14	7.14	13	1100	29.2	0.5	0.06	2878 ± 44	3157 ± 14	✓
	[?] C22-2	06:28	6.25	14	1300	222	0.7	0.06	624 ± 370	602 ± 42	✓
	<p>[?] I⁰ dropped, tried to maximize but can only find one peak → realise arc had dropped out!! weird that I was still able to tune some sort of beam coming through the column even though the arc current was off!</p>										
	C22-3	07:07	6.71	31	2600	212	0.7	0.08	531 ± 6	556 ± 39	✓
	C23-4	07:24	7.02	32	2800	205	-ve	-ve	536 ± 4	511 ± 23	✓

(written as A.751)

I⁰ dropped out
→ new settings
rolled out brightness
aperture
I⁰ = 5.2 nA