

UWA SHRIMP DATA LOG

Date: 21/1/00 UWA Mount No.: 99-82 Whose sample?: April Operator(s): McW + AP

Indicate any change to the following: 196 204 bkg 206 207 208 238 248 254 ~~270~~

Precambrian Count time (secs): 2 10 10 10/20* ~~30/10~~ 10 5 5 2
 Phanerozoic* Delay time (secs): 8 3 1 2 1 1 3 2 2

Steel: Wein volts / nA = $62V/19.0$ for O⁻; = $38V/3.9$ for O₂⁻; = $29V/9.3$ for NO⁻

dead-time = 32 nanosecs expected resolution = >4200 actual resolution = 47.74

aperture = ? 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 = 2.003

206-207 = 1.000 206-208 = 1.999

Primary-epoxy = 3.4 nA Primary-CZ3 = 4.8 nA PESABM-CZ3 = 77 pA

Raster time (mins): 1 Raster aperture (microns): 120 No. of scans: 7

Comments: C = CN11-17. gen small g-s. poss. tuffaceous sed (?), but most metamict (S. African, Riries Mem)
 NB: generally metamict grains w/ high Pb206. Targetted: 59 grains
 D = CN118-13 rel. small, small * zircon, most metamict. Targetted 14 grains, 9 analysed
 A = CN118-11 rel. larger grains, most metamict is very lucky!

Astd = 11 δ (slope 2) = 1.86; δ (Actual 1.99) = 1.86

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?

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?
	sl. 1-1	14:02	7.20	25.9	2434	220	0.2	.02	572 ± 1	578 ± 19	✓
	sl. 1-2	14:24	7.29	25.3	2511	224	1.4	.05	575 ± 1	553 ± 13	✓
	C 1-1	15:11	7.18	29.8	9210	203	14.6	.31	1853 ± 3	2220 ± 5	✓
	C 2-1	15:33	7.17	27.4	8798	255	9.8	.21	1579 ± 2	1957 ± 5	✓
	C 3-1	16:01	6.85	28.0	8337	267	9.5	.19	1590 ± 2	2005 ± 5	✓
	sl. 2-1	16:26	7.08	24.6	2326	235	0.0	.01	566 ± 1	567 ± 15	✓
	C 4-1	17:24	7.23	23.2	6631	137	5.5	.13	2393 ± 5	2428 ± 5	✓
	C 5-1	18:01	7.22	21.6	6119	137	6.4	.15	2375 ± 5	2410 ± 5	✓

C

tails 6

tails 7

changing in setting:

1° ↓ to 4.4 nA during last 2 scans →

1° step down to 4.2 nA →

1° ↓ 4.2 nA from 4.6 nA →

1° @ 4.2 nA → 4.0 nA

Dis

ok

ok

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?

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?	
$i^0 = 4nA$	C.6-1	18:22	7.36	19.6	7302	192	13.2	.25	2152 ± 4	2357 ± 5	✓	x
$i^0 = 3.8nA$	C.7-1	18:43	7.48	20.6	7513	221	7.5	-.15	1814 ± 3	2080 ± 5	✓	x
$i^0 = 3.6nA$ i^0 scan Th0	sl.2-2	19:03	7.35	19.1	1956	229	0.1	-.05	571 ± 1	566 ± 15	✓	
$i^0 = 3.8nA$ v. stable	C.8-1	19:29	7.36	19.2	6672	163	5.8	.12	2331 ± 4	2405 ± 5	✓	ok
$i^0 = 3.6nA$ v. stable	C.9-1	21:28	7.40	18.2	7226	206	8.0	.15	2106 ± 4	2289 ± 5	✓	?
i^0 dropped → 3.3nA → 3.5 change setting $i^0 = 3.6nA$	C10-1	21:53	7.23	16.8	5681	164	9.1	.18	2364 ± 5	2408 ± 5	✓	ok
$i^0 = 3.6nA$	D.1-1	22:17	7.14	17.7	2540	68	0.4	-.02	2472 ± 8	2464 ± 7	✓	ok
i^0 correct peak	D.2-1	22:37	7.59	19.1	5970	144	3.5	.09	2212 ± 4	2347 ± 5	✓	
	sl.2-3	22:58	5.14	14.2	930	474	-ve	-ve	572 ± 1	583 ± 19	✓	
	D.3-1	23:24	6.93	17.8	3936	125	2.4	-.06	2303 ± 6	2434 ± 6	✓	
	sl.2-4	23:44	7.51	17.9	1894	222	1.3	.11	568 ± 1	557 ± 15	✓	
	D.4-1	24:06	7.65	17.4	4798	115	1.0	.03	2365 ± 6	2412 ± 5	✓	ok
	D.5-1	24:32	7.24	18.4	4382	119	1.9	.05	2312 ± 5	2486 ± 5	✓	ok?
ok	D.6-1	1:07	6.32	16.8	3108	128	1.9	-.04	2458 ± 7	2445 ± 6	✓	ok
	D.7-1	1:28	7.13	17.5	2855	76	1.7	.07	2518 ± 8	2459 ± 7	✓	ok
	D.8-1	1:53	7.29	18.9	6167	181	6.7	.14	2068 ± 4	2303 ± 5	✓	x
	sl.2-5	2:15	7.31	18.7	1786	217	0.2	-.04	568 ± 1	591 ± 15	✓	
	D.9-1	2:35	7.80	17.9	5107	128	4.3	.13	2112 ± 5	2265 ± 6	✓	ok
	C11-1	3:01	7.21	17.3	6483	269	9.0	-.17	1699 ± 3	2001 ± 6	✓	
$i^0 = 3.5nA$	C12-1	3:56	7.65	17.0	6296	155	18.8	-.39	2346 ± 5	2408 ± 6	✓	
power glitch → features x	sl.2-6	4:38	7.61	14.8	1558	221	1.9	-.02	551 ± 1	560 ± 17	✓	See printout change in i^0 setting
i^0 dropped sharply → 3nA	sl.3-1	5:01	7.62	14.0	1487	211	1.1	-.04	576 ± 1	526 ± 17	✓	
$i^0 = 3.2nA$ → 3.0nA fail	A1-1	5:25	7.44	13.3	4135	131	0.7	-.02	2491 ± 6	2456 ± 5	✓	
$i^0 = 3.2nA$ i^0 stable	A2-1	5:47	7.60	14.1	2735	82	1.4	-.06	2382 ± 7	2468 ± 7	✓	
i^0 stable but stepped down toward goal	A3-1	6:07	7.51	14.2	3329	102	2.6	-.08	2371 ± 7	2471 ± 6	✓	

D
C

C

D

But young!
ok

Mount/sample No: 99-82

Date: 22/1/00

Page No: 3

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?

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?
<i>1° = 3.0 → 3.0 during 2nd scan.</i>	A 4-1	6:29	7.55	12.7	2659	85	4.0	.14	2493 ± 8	2453 ± 7	✓
<i>Fail 6</i>	A 5-1	6:52	7.78	13.7	2111	60	1.7	.09	2420 ± 9	2434 ± 8	✓
<i>1° ↑ 3.0 → 3.2nA</i>	sl. 3-2	7:13	7.46	14.4	1514	224	7.6	.52	568 ± 1	547 ± 18	✓
<i>1° grad ↑ 3.2 → 3.4nA → 3.0nA power glitch magnet went → 1° 3.2nA</i>	A 6-1	7:37	7.68	14.1	3654	103	1.9	.06	2442 ± 7	2467 ± 6	✓
	A 7-1	7:59	6.58	14.6	5670	202	5.5	.07	2799 ± 7	2099 ± 5	✓
<i>1° grad ↓ 3.2 → 3.5nA</i>	A 8-1	8:20	7.49	14.0	4961	160	5.7	.12	2309 ± 5	2401 ± 5	✓
<i>1° stable 3.2</i>	A 9-1	8:41	7.47	14.5	5170	178	4.2	.09	2137 ± 4	2338 ± 5	✓
	A 10-1	8:08	7.14	14.7	1444	47	1.0	.07	2451 ± 10	2444 ± 10	✓
<i>drifted 1° dropped out</i>	sl. 3-3	9:00	<i>faulted</i>								✓
	sl. 3-4	9:47	7.54	13.1	1366	224	0.0	0.06	549 ± 1	617 ± 17	✓

del scans A 5
del 1° & 40 scans