

UWA DATA LOG: SHRIMP ZIRCON U-Pb

Date: 16/4/99 UWA Mount No. 99-14 Whose sample? McN Operator(s) JD/McN

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

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

expected 196-204 = 8.170 amu expected 204-bkg = 0.045 amu Dead-time = 32 nanosecs

actual 196-204 = 8.170/8.167 actual 204-bkg = 0.045/0.045 expected resolution = >4200

actual 206-207 = 1.000/0.999 actual 206-208 = 2.000/1.999 actual resolution = 5100

Primary = 2.2 (2.3) nA PESABM = 23 → 32 actual Primary : PESABM (= 50:1) =

Raster time (mins): 1 Raster aperture (microns): 120 No. of scans: 6

Comments:

A = JBD-110
 B = JBD-140
 D = WBAD 029

* Arc lost near end of 4th scan → Pb data OK, U-Th data no good
 ↑ Duo P + got 10 up to ~3.1 nA → RESTART

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U Kcps	196 cps	206 cps	U ppm	204Pb ppb	f ₂₀₆ %	Age ±1σ (Ma) 206/238 207/206	Offsets OK?
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	sl.6-1	12:39	6.83	7.2	865	220	1.5	.13	571 ± 1	490 ± 39	
	sl.6-2	12:57	7.06	7.1	860	201	2.3	.21	573 ± 1	496 ± 40	✓
	A.2-1	Aborted - outrageously high Pb									
	A.16-1	1° dropped half-way through - no arc									
RESTART	sl.6-3	13:26	7.93	7.1	1521	55*	8.3	.42	2306 ± 12	3468 ± 9	✓
	sl.6-3	14:09	8.61	10.7	1188	219	0.5	.05	580 ± 1	530 ± 28	(NO)
RESTART	sl.7-1	Stopped when wrong offsets recognised									
	sl.9-1	15:23	6.66	10.0	1155	220	1.4	.12	571 ± 1	570 ± 33	✓
	sl.9-2	15:41	6.93	9.8	1195	201	-0.1	.08	587 ± 1	559 ± 23	✓
1x4 scan	A.17-1	16:00	7.76	9.3	9.2K	228	100.2	1.25	2556 ± 5	2481 ± 7	✓

Mount/sample No: 99-14

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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.18-1	16:19	6.71	10.1	2.8K	88.6	0.1	.003	2756±10	2780±7	✓
	sl.9-3	16:37	6.97	9.8	1210	199	0.8	.08	586±1	566±28	✓
Labelled 9-3. 1st scan	A.19-1	16:55	6.92	10.0	3.8K	110	8.5	.19	2792±9	2738±6	✓
	A.20-1	17:14	7.01	10.0	2.6K	85.5	7.4	.26	2434±9	2677±8	✓
	A.21-1	17:32	6.99	9.9	3.6K	107	12.8	.31	2693±9	2723±7	✓
	sl.9-4	17:49	6.58	10.7	1170	214	2.5	.21	578±1	562±33	✓
	A.22-1	18:07	7.41	9.4	4.5K	120	33.7	.75	2682±8	2601±8	✓
	A.23-1	18:25	6.81	9.4	1496	52.9	3.5	.18	2587±12	2745±10	✓
1st scan	A.24-1	18:42	6.90	10.1	3.4K	107	12.6	.31	2648±8	2726±7	✓
	sl.14-1	19:00	6.69	9.9	1177	217	2.6	.22	587±1	497±34	✓
	A.25-1	19:18	7.19	9.6	5.0K	149	34.9	.66	2566±7	2628±7	✓
	A.26-1	19:36	6.82	9.9	1938	59.5	2.6	.11	2766±12	2751±9	✓
	A.27-1	19:55	6.66	10.0	2.9K	98	10.1	.27	2722±9	2744±8	✓
	A.28-1	20:12	6.65	9.7	1544	51.2	2.8	.13	2830±14	2764±10	✓
	sl.13-1	20:30	6.80	10.0	1205	210	1.2	.11	581±1	547±28	✓
	A.29-1	20:53	6.81	9.9	3.3K	101	13.7	.34	2788±9	2762±7	✓
	A.30-1	21:11	7.35	9.8	6.5K	171	37.8	.59	2655±6	2646±6	✓
	A.31-1	21:29	6.87	10.1	2.9K	95	4.8	.14	2576±9	2728±7	✓
	A.32-1	21:47	7.03	9.6	3.2K	117	21.5	.59	2315±7	2575±9	✓
	sl.12-1	22:06	6.77	10.0	1158	212	1.5	.13	566±1	555±31	✓
	A.33-1	22:24	6.78	9.5	2.7K	85.5	6.3	.18	2820±10	2737±8	✓
	A.34-1	22:41	6.51	9.4	2.5K	100.1	3.7	.10	2580±9	2714±8	✓
	A.35-1	22:59	7.47	8.8	5.4K	150	55.6	1.00	2665±7	2540±8	✓
Non-linear	A.11-1	23:17	6.70	9.6	3.0K	89	20.7	.53	3031±11	2688±9	✓
1st scan	sl.12-2	23:35	6.74	10.0	1155	203	1.9	.17	591±1	522±34	✓

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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	²⁰⁴ Pb ppb	^{f206} %	Age ±1σ (Ma) 206/238	207/206	Offsets OK?
	B.10-1	23:55	6.62	10.6	1112	36	1.6	.11	2735 ± 15	2671 ± 12	✓
	B.8-1	00:12	6.63	10.3	1811	60	8.3	.36	2720 ± 12	2669 ± 11	✓
	B.9-1	00:31	6.87	10.4	1659	56	16.7	.88	2423 ± 11	2746 ± 11	✓
	B.12-1	00:50	6.64	10.4	1077	35	1.4	.10	2752 ± 16	2673 ± 12	✓
	sl.11-1	1:09	6.84	10.2	1233	208	1.6	.14	579 ± 1	558 ± 31	✓
	B.16-1	01:34	6.91	10.2	1637	48	117!	6.30	2620 ± 14	2649 ± 29	✓
	B.13-1	aborted - In PbC									
	B.14-1	aborted - Cu PbC									
	B.1-1	02:15	6.82	10.3	1416	48	26.6	1.60	2471 ± 12	2700 ± 17	✓
	B.2-1	02:35	6.93	10.3	1387	43	8.2	.53	2573 ± 13	2659 ± 13	✓
	B.7-1	02:54	6.92	9.7	1263	41	18.5	1.24	2596 ± 14	2688 ± 17	✓
	sl.11-2	03:16	6.66	10.2	1152	208	3.2	.28	588 ± 1	447 ± 43	✓
	B.4-1	03:34	6.78	10.1	1314	45	7.3	.46	2547 ± 13	2664 ± 13	✓
	B.6-1	03:53	7.01	9.7	1456	43	-	-	2749 ± 14	2648 ± 10	✓
	B.17-1	04:48	6.53	10.3	256	9	0.6	.17	2786 ± 33	2727 ± 27	✓
	B.17-2	05:05	6.66	10.0	350	12	1.1	.24	2752 ± 28	2720 ± 22	✓
	sl.11-3	05:23	6.79	9.8	1170	211	0.6	.06	577 ± 1	555 ± 60	✓
	B.18-1	05:42	6.72	9.8	1551	50	2.0	.10	2763 ± 13	2659 ± 10	✓
	B.11-1	06:18	8.10	7.4	1626	134	203.5	12.5	881 ± 5	2649 ± 44	✓
	sl.10-1	06:44	6.85	9.9	1219	207	0.9	.08	591 ± 1	520 ± 25	✓

quicker samples - lots with high Pb common.

none w low Pb - All are too small

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