

**UWA DATA LOG: SHRIMP ZIRCON U-Pb**

Date: 14/12/97      UWA Mount No.: 97-33      Whose sample?: UWA/BOM      Operator(s): IF+AP

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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\* / 10 / 5 / 5 / 2 /

**Phanerozoic\***    Delay time (secs):    8 / 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 = 8.168      actual 204-bkg = 0.0      expected resolution = >4200

actual 206-207 = 1.000      actual 206-208 = 1.999      actual resolution = 4875

Primary = 3.8 nA    PESABM = 52 pA    actual Primary : PESABM (≈ 50:1) = 73

Raster time (mins): 3    Raster aperture (microns): 120    No. of scans: 5

Sensitivity = 13.0

Comments: Checked 204, 207, 208 offsets  
 (had to increase this. Spot is not as Köhler as it sometimes is.)  
 chip: generally small chips - single spot analysis (>90% spot area).  
 edge50 = 50% spot area ; edge25 = 25% spot area  
 del#. = del ⇒ delayed    \* = no of mins.

Rejection over-ride	Sample/ Std ID	Time - printout	UO/U kcps	196 cps	206 cps	U ppm	204Pb ppb	f <sub>206</sub> %	Age ±1σ (Ma) 206/238	207/206	Corr.
	del-2										
	sl. 6-1	10:14	6.45	16.2	1530	-	6.4	.28	-	587	208
	del-1										
	sl. 4-2	10:28	6.20	17.4	1525	229	1.7	.13	578	586	208
	del-1										
	sl. 7-1	10:48	6.59	16.3	1642	217	2.5	.16	578	580	208
	sl. 8-1	11:03	6.01	17.0	1429	240	0.3	.10	586	543	208
	sl. 9-1										
	chip 1-1	11:20	6.14	16.9	1493	235	0.2	.08	584	485	208
	edge 50. 1-1	11:36	6.89	9.0	921	198	4.3	.65	560	577	208
	chip 2-1	11:52	5.78	17.8	1308	241	0.7	.09	581	586	208
	sl. 5-1	12:09	6.48	15.9	1475	210	0.8	.06	579	553	208
	chip 3-1	12:26	6.09	16.3	1430	239	11.	.72	583	587	208
	chip 4-1	12:43	6.06	16.7	1399	235	2.1	.19	577	634	208
	chip 5-1	12:59	6.22	15.8	1440	230	4.7	.29	589	520	208

Reclassified 30/12/97

1 minuter

2 min

2 min

3 min

big chip

small chip

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

Rejection over-ride	Sample/Std ID	Time - printout	UO/U kcps	196 cps	206 cps	U ppm	<sup>204</sup> Pb ppb	f <sup>206</sup> %	Age ±1σ (Ma) 206/238	207/206	Corr.
	SL 6-1	13:15	6.31	16.0	1455	223	1.8	.13	580	539	208
	chip 6-1	13:38	5.78	18.0	1425	253	1.4	.07	596	560	208
	chip 7-1	14:07	6.25	16.2	1462	230	2.4	0.15	574 ± 1	581 ± 36	208
	chip 8-1	14:24	6.71	15.3	1569	212	1.5	0.13	571 ± 1	554 ± 43	208
	SL 6-2	14:41	6.17	16.4	1425	228	6.4	0.12	585 ± 1	606 ± 36	208
	chip 9-1	14:58	7.10	14.1	1573	198	0.8	0.06	567 ± 1	621 ± 34	208
	edgeso.10-1	15:24	6.86	10.9	1116	203	4.3	0.13	556 ± 1	570 ± 40	208
	del 2.10-2	15:42	6.34	15.7	1500	225	2.6	0.08	597 ± 1	507 ± 36	208
	SL 7-2	16:00	6.30	15.9	1495	228	3.0	0.09	593 ± 1	623 ± 34	208
	chip 11-1	16:18	6.34	15.8	1435	225	6.5	0.06	569 ± 1	610 ± 35	208
	edgeso.12-1	16:34	5.70	12.8	1089	268	13.1	0.71	631 ± 1	597 ± 44	208
	edgeso.13-1	16:51	5.99	12.4	993	232	12.4	0.17	583 ± 1	540 ± 44	208
	SL 7-3	17:08	6.81	14.6	1550	211	1.0	0.00	578 ± 1	599	208
	chip 14-1	17:23	6.09	16.7	1440	232	3.0	0.09	593 ± 1	597 ± 35	208
	chip 15-1	17:39	6.34	15.7	1486	226	0.3	0.02	589 ± 1	520 ± 36	208
	chip 16-1	17:54	6.25	16.1	1486	229	-2.2	0.11	592 ± 1	575 ± 35	208
	SL 7-4	18:12	6.41	15.5	1453	221	2.8	0.11	577 ± 1	572 ± 36	208
	chip 17-1	18:28	5.99	16.6	1422	241	1.4	0.13	600 ± 1	560 ± 36	208
	chip 18-1	18:44	6.49	15.3	1515	225	1.9	0.08	577 ± 1	661 ± 34	208
	chip 19-1	19:00	6.31	15.6	1496	230	3.2	0.05	595 ± 1	624 ± 35	208
	SL 7-5	19:16	6.68	14.6	1462	211	2.1	0.10	569 ± 1	477 ± 37	208
	chip 20-1	19:33	6.97	14.5	1550	200	0.0	0.13	563 ± 1	589 ± 34	208
	del 5 chip 21-1	19:55	5.97	16.9	1409	240	1.0	0.08	590 ± 1	590 ± 36	208
	chip 22-1	20:11	7.17	14.1	1593	193	13.9	1.30	564 ± 1	588 ± 38	208
	SL 7-6	20:27	6.52	15.2	1463	216	1.8	0.09	576 ± 1	578 ± 35	208

4.0nA  
close to bubble, bad gold  
3.6nA  
3.2nA  
3.8nA  
3.5nA  
3.4nA  
3.8nA  
3.7nA  
3.6nA  
3.6nA

1/2 spot  
delayed start 2mins

checked pot. ok. 1/2 spot

delayed start 5mins  
change name



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Rejection over-ride	Sample/ Std ID	Time - printout	UO/U	196 cps (K)	206 cps	U ppm	<sup>204</sup> Pb ppb	f <sub>206</sub> %	Age ±1σ (Ma) 206/238	207/206	Corr.
	chip 22-2	20:43	6.88	14.4	1518	205	1.7	0.07	567 ± 1	621 ± 34	208
	chip 23-1	21:00	5.70	17.7	1327	253	0.3	0.08	592 ± 1	538 ± 38	208
	<del>edge 23</del> chip 24-1	21:15	6.59	14.0	1372	215	0.5	0.07	567 ± 1	568 ± 36	208
	sl 7-7	21:31	6.24	15.4	1454	229	3.7	0.16	597 ± 1	512 ± 37	208
	<del>edge 25</del> chip 25-1	21:49	5.80	17.0	1296	241	4.5	0.21	594 ± 1	589 ± 38	208
	edge 25-26-1	22:07	6.77	9.8	1038	209	0.9	0.05	583 ± 1	545 ± 43	208
	chip 27-1	22:27	6.24	15.2	1396	234	-1.5	0.02	579 ± 1	666 ± 35	208
	sl 6-3	27:44	6.40	14.9	1401	219	0.5	0.10	583 ± 1	548 ± 37	208
	chip 28-1	23:02	6.96	14.2	1511	200	0.6	0.07	565 ± 1	529 ± 36	208
	chip 29-1	23:21	6.28	16.0	1430	226	1.5	0.02	573 ± 1	552 ± 36	208
	<del>edge 30</del> <del>del 30</del> edge 30-1	23:38	5.72	11.4	937	265	7.0	0.56	610 ± 1	600 ± 46	208
	sl 6-4	23:54	6.24	15.4	1369	223	2.4	0.13	588 ± 1	531 ± 38	208
	del 5-30-2	24:15	5.64	18.3	1334	259	0.1	0.03	586 ± 1	563 ± 37	208
	chip 31-1	24:33	5.92	14.7	1270	256	1.1	0.08	593 ± 1	458 ± 53	208
	chip 32-1	24:51	6.52	15.0	1491	221	1.6	0.10	579 ± 1	482 ± 37	208
	sl 6-5	1:07	6.04	16.2	1346	232	1.9	0.15	586 ± 1	514 ± 38	208
	chip 32-2	1:23	6.79	13.9	1501	218	1.6	0.05	568 ± 1	544 ± 35	208
	chip 33-1	1:39	5.69	17.0	1289	254	2.6	0.15	602 ± 1	599 ± 38	208
	chip 34-1	1:57	5.93	15.8	1333	249	1.6	0.05	592 ± 1	579 ± 37	208
	sl 4-3	2:13	6.56	14.2	1426	225	2.3	0.10	566 ± 1	660 ± 35	208
	<del>edge 30</del> <del>del 34</del> edge 34-2	2:29	4.76	17.1	712	317	-0.4	0.13	548 ± 1	517 ± 53	208
	del 5-34-3	2:50	5.46	10.9	855	309	1.8	0.10	593 ± 1	548 ± 47	208
	del 7-34-4	3:12	5.99	16.8	1411	238	0.8	0.03	595 ± 1	540 ± 37	208
	sl 4-4	3:27	6.28	15.8	1446	229	2.3	0.15	579 ± 1	544 ± 36	208
	chip 35-1	3:42	6.30	15.5	1455	231	1.9	0.03	585 ± 1	542 ± 36	208

3.6nA

3.4nA

3.6nA

3.2nA

3.6nA

3.2nA

3.6nA

3.4-3.6

1° creased up.

not reflected in 2°

3-7

correct beam?

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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.
	chip 36-1	3:57	5.86	17.9	1423	247	1.8	0.10	582 ± 1	448 ± 37	208
	edge 25-37-1	4:17	5.33	5.0	353	297	2.5	0.51	600 ± 1	621 ± 75	208
	sl 4-5	4:36	6.26	15.1	1453 1821	239 1153	2.3 289	0.07 23	585 ± 1	594 ± 35	208
	del 7-37-2	5:02	6.33	14.7	1412	234	0.6	0.11	581 ± 1	590 ± 36	208
	edge 50-38-1	5:17	6.25	7.6	779	841	15.5	0.82	617 ± 1	451 ± 54	208
	edge 25-38-2	5:32	4.46	12.7	624	377	20.40	0.41	749 ± 2	651 ± 55	208
	sl 4-6	5:47	5.96	16.6	1392	249	3.5	0.16	579 ± 1	536 ± 37	208
	close sl 5-2	6:03	6.25	16.2	1449	225	3.8	0.12	586 ± 1	572 ± 36	208
overlap	close sl 5-3	6:21	5.85	15.6	1229	248	3.4	0.09	579 ± 1	477 ± 40	208
	close sl 5-4	6:36	6.14	16.5	1331	236	2.7	0.12	536 ± 1	566 ± 38	208
	sl 4-7	6:51	6.00	16.6	1396	240	2.4	0.16	590 ± 1	566 ± 37	208
overlap	close sl 5-5	7:07	6.03	16.1	1308	238	0.5	0.05	565 ± 1	541 ± 43	204
	close sl 5-6	7:21	5.98	16.5	1276	243	1.0	0.19	539 ± 1	610 ± 38	208
	close sl 5-7	7:36	5.82	14.8	1164	259	5.5	0.17	570 ± 1	655 ± 39	208
	sl 4-8	8:06	6.15	15.7	1357	235	2.2	0.17	569 ± 1	677 ± 36	208
	close sl 5-8	8:51	5.78	16.5	1215	259	4.5	0.17	545 ± 1	556 ± 40	208
	sl 8-2	8:21	6.00	15.4	1333	250	-0.4	0.17	582 ± 1	549 ± 38	208

3.6nA  
|  
3.0nA  
|  
3.6nA  
|  
3.0nA  
|  
3.1nA  
|  
3.7nA

← slope  
rad  
away

correct  
beam