

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

Date: 20/8/99  
~~99/22~~

UWA Mount No.: 99-22

Whose sample?: MD

Operator(s): JD/MD

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Indicate any change to the following:

	196	204	bkg	206	207	208	238	248	254	270
<b>Precambrian</b>	Count time (secs):	2	10	10	<del>10</del> /20*	<del>30</del> /10*	10	5	5	2
<b>Phanerozoic*</b>	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      actual 204-bkg = 0.045      expected resolution = >4200

actual 206-207 = 1.000      actual 206-208 = 2.000      actual resolution = 5050

Primary = 3.3 <sup>apoxy</sup> nA      PESABM = 28 pA      actual Primary : PESABM (≈ 50:1) = .....

Raster time (mins): 1      Raster aperture (microns): 120      No. of scans: 5

Comments: C = R21254 (RFT-6)

Spot size is large - played with heater + condenser voltages to reduce, but still big - (35-40µm)

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?
	<u>sl. 2-1</u>	<u>11:27</u>	<u>7.72</u>	<u>8.5</u>	<u>1249</u>	<u>220</u>	<u>5.1</u>	<u>.44</u>	<u>570 ± 2</u>	<u>468 ± 59</u>	
	<u>sl. 2-2</u>	<u>11:46</u>	<u>7.78</u>	<u>8.4</u>	<u>1224</u>	<u>217</u>	<u>3.1</u>	<u>.28</u>	<u>558 ± 2</u>	<u>469 ± 49</u>	✓
	<u>C. 1-1</u>	<u>12:02</u>	<u>7.56</u>	<u>8.5</u>	<u>804</u>	<u>170</u>	<u>2.8</u>	<u>.35</u>	<u>503 ± 2</u>	<u>478 ± 66</u>	✓
	<u>C. 2-1</u>	<u>12:28</u>	<u>7.36</u>	<u>8.5</u>	<u>758</u>	<u>126</u>	<u>12.1</u>	<u>1.47</u>	<u>675 ± 3</u>	<u>790 ± 86</u>	✓
	<u>sl. 2-3</u>	<u>12:49</u>	<u>7.63</u>	<u>8.7</u>	<u>1208</u>	<u>225</u>	<u>6.7</u>	<u>.06</u>	<u>543 ± 1</u>	<u>541 ± 45</u>	✓
	<u>C. 3-1</u>	<u>13:07</u>	<u>7.53</u>	<u>8.9</u>	<u>1336</u>	<u>119</u>	<u>2.8</u>	<u>.21</u>	<u>1102 ± 4</u>	<u>1182 ± 34</u>	✓
	<u>C. 4-1</u>	<u>13:24</u>	<u>7.71</u>	<u>8.4</u>	<u>2514</u>	<u>655</u>	<u>102!</u>	<u>4.35</u>	<u>380 ± 1</u>	<u>361 ± 107</u>	✓ out
	<u>C. 5-1</u>	<u>13:41</u>	<u>7.40</u>	<u>9.1</u>	<u>73</u>	<u>13</u>	<u>5.7</u>	<u>6.28</u>	<u>570 ± 13</u>	<u>—</u>	✓
	<u>sl. 2-4</u>	<u>14:00</u>	<u>7.45</u>	<u>8.4</u>	<u>1179</u>	<u>233</u>	<u>3.4</u>	<u>.28</u>	<u>565 ± 2</u>	<u>486 ± 49</u>	✓
	<u>C. 6-1</u>	<u>14:15</u>	<u>7.81</u>	<u>8.4</u>	<u>620</u>	<u>72</u>	<u>3.8</u>	<u>.65</u>	<u>824 ± 4</u>	<u>860 ± 76</u>	✓
	<u>C. 7-1</u>	<u>14:33</u>	<u>7.55</u>	<u>8.2</u>	<u>2402</u>	<u>159</u>	<u>3.8</u>	<u>.14</u>	<u>1544 ± 6</u>	<u>1610 ± 20</u>	✓

*li Pb- should have alerted*

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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?
	C.8-1	14:49	7.47	8.8	4536	249	3.8	.02	1757±48	2123±11	✓
	sl.1-1	15:14	7.53	8.9	1244	230	2.5	.21	557±1	558±46	✓
	C.9-1	15:32	7.45	7.55	200	43	2.8	1.3	580±5	379± -	✓
	C.10-1	15:55	7.14	8.52	325	36	-	-	1071±8	1165±55	✓
	C.11-1	16:17	7.35	8.52	744	158	0	-	538±2	564±47	✓
	sl.2-1	16:33	7.75	8.65	2469	444	16	.71	540±1	554±43	✓
	sl.1-2	16:56	7.50	8.71	1228	233	-	-	559±1	651±35	✓
	C.13-1	17:15	7.32	8.75	506	60	1.4	.26	921±5	919±74	✓
	C.14-1	17:38	7.48	8.88	1432	281	13.0	.92	532±1	618±59	✓
	C.15-1	17:55	7.31	9.06	2272	105	3.6	.13	2100±9	2346±14	✓
	sl.1-3	18:13	7.43	7.02	971	235	1.1	.09	557±2	605±51	✓
	C.16-1	18:39	7.49	8.73	2642	467	2.5	.09	599±1	544±28	✓
	C.17-1	18:59	7.57	8.29	1913	122	2.4	.11	1579±6	1379±22	✓
	C.18-1	19:12	7.61	9.56	2378	71	2.2	.08	2626±12	2689±12	✓
	C.19-1	19:38	7.30 8.21	9.31 8.63	363	41	-	-	923±6	990±56	✓
	sl.4-1	19:58	7.44	9.39	1289	227	8.2	.68	567±2	526±58	✓
	C.20-1	20:15	7.48	9.41	919	85	1.1	.12	1025±5	1004±39	✓
	C.21-1	20:31	7.39	9.17	760	84	3.4	.44	915±4	889±57	✓
	C.22-1	20:51	7.59	9.0	2063	360	7.2	.38	567±1	538±41	✓
	C.23-1	21:16	7.29	8.7	578	109	<del>10.0</del>	-	610±2	579±52	✓
	C.24-1	21:38	7.29	8.6	1139	243	-	-	545±1	560±38	✓
	sl.4-2	21:56	7.51	8.74	1266	240	4.6	.38	554±1	504±52	✓
	C.25-1	22:13	7.56	9.01	4748	399	-	-	1138±2	1134±15	✓
	C.26-1	22:29	7.33	9.10	1256	233	2.0	.16	583±2	605±41	✓
	C.27-1	22:46	6.64	7.39	1073	46	7.0	.29	3270±25	3105±16	✓

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	Offsets OK?
	C.28-1	23:03	7.31	9.07	4562	245	9.2	.17	1836±5	1992±12	✓
	C.29-1	23:23	7.37	9.07	2299	261	9.2	.33	912±2	2295±15	✓
	sl.5-1	23:40	7:17	9.43	1305	255	1.6	.11	567±1	661±38	✓
	C.30-1	23:57	7:44	9.15	850	97	0.5	.06	885±4	899±47	✓
	C.31-1	00:14	7:52	9.29	426	72	<del>0.31</del> 1.2	0.31	583±3	510±86	✓
	C.32-1	00:31	7:44	9.51	1168	212	—	—	547±1	589±37	✓
	C.33-1	00:48	7:52	9.16	981	139	1.8	.20	698±2	690±51	✓
	C.34-1	1:04	7:53	9.53	3824	362	10.0	.28	977±2	1053±22	✓
	C.35-1	1:25	7:75	7.85	2694	255	1.1	.04	1089±3	1076±23	✓
	sl.5-2	1:43	7:60	7.91	1149	222	0.3	.03	582?	589?	✓
	C.36-1	2:00	7:84	8.0	1416	112	4.1	.29	1222±5	268±31	✓
	sl.5-3	2:21	7:24	7.80	1029	238	1.0	.08	569±2	543±47	✓
	C.37-1	2:39	7:47	8.15	1069	65	3.9	.31	1725±10	1763±30	✓
	C.38-1	2:55	7:40	7.24	1536	164	2.5	.12	1194±4	1265±28	✓
	C.39-1	3:15	7:68	8.41	1994	64	1.0	.04	2709±14	2705±13	✓
	C.40-1	3:31	7:47	8.05	855	105	3.3	.34	911±4	933±50	✓
	C.41-1	3:47	7:74	7.68	351	69	0.3	.08	561±3	664±86	✓
	sl.5-4	4:03	7:17	8.35	1075	245	3.5	.28	551±2	498±55	✓
	C.42-1	4:20	7:26	7.58	651	159	2.9	.37	546±2	378±73	✓
	C.43-1	4:35	7:54	8.4	3899	180	0.8	.02	2071±7	2304±11	✓
	C.44-1	4:51	7:19	6.8	475	<del>483</del> 151	9.7	<del>1.4</del> 1.4	476±2	288±140	✓
	C.45-1	5:06	7:51	8.4	1148	114	6.2	0.5	1055±4	1050±41	✓
	C.46-1	5:22	7:29	9.13	596	52	1.8	<del>0.28</del> 0.28	1182±7	1203±53	✓
	sl.9-1	5:39	7:27	8.6	1182	247	3.7	.29	560±1	538±47	✓
	C.47-1	5:57	7:48	8.6	2310	252	6.4	.27	960±3	913±29	✓

high Pb<sup>204</sup> ← primary  
↓ 1° to 23/29

+/-2 Wander in 1°  
rec. val.

