

Table DR2 U-Th-Pb isotopic data

Sample	LA-ICPMS	Compositional Parameters						Radiogenic Isotope Ratios						
		Th U	<sup>206</sup> Pb* x10 <sup>-13</sup> mol	mol % <sup>206</sup> Pb*	Pb* Pb <sub>c</sub>	Pb <sub>c</sub> (pg)	<sup>206</sup> Pb <sup>204</sup> Pb	<sup>208</sup> Pb <sup>206</sup> Pb	<sup>207</sup> Pb <sup>206</sup> Pb	% err	<sup>207</sup> Pb <sup>235</sup> U	% err	<sup>206</sup> Pb <sup>238</sup> U	% err
(a)	(b)	(c)	(d)	(d)	(d)	(d)	(e)	(f)	(f)	(g)	(f)	(g)	(f)	(g)
<b>SC18-1</b>														
z1	ML7	0.37	3.95	1.00	57.30	1.68	3349.45	0.11	0.07	0.08	1.6580	0.1415	0.1664	0.070
z2a	ML72	1.26	0.67	1.00	75.32	0.27	3765.83	0.38	0.07	0.12	1.7732	0.1899	0.1742	0.089
z2b	ML72	1.26	0.15	0.96	8.55	0.54	440.64	0.38	0.07	0.67	1.7731	0.8425	0.1743	0.337
z3	ML83	0.75	1.56	1.00	186.81	0.22	#####	0.23	0.08	0.08	1.8987	0.1441	0.1824	0.073
z4	ML95	1.26	2.06	1.00	99.18	0.63	4877.80	0.38	0.07	0.09	1.7260	0.1519	0.1710	0.074
z5a	ML101	0.55	0.08	0.97	10.33	0.19	623.07	0.17	0.07	0.72	1.7559	0.8475	0.1735	0.289
z5b	ML101	0.50	0.11	0.96	7.43	0.36	458.36	0.15	0.07	0.81	1.7718	0.9680	0.1739	0.343
z6	ML105	0.26	1.32	0.99	47.99	0.65	2980.82	0.08	0.08	0.11	1.8822	0.1810	0.1813	0.103
z7a	ML252	0.28	7.41	1.00	645.16	0.28	#####	0.09	0.08	0.06	1.9428	0.1289	0.1853	0.071
z7b	ML252	0.33	1.29	1.00	90.32	0.35	5594.92	0.10	0.08	0.09	1.9420	0.1561	0.1852	0.079
z7c	ML252	0.31	0.38	0.99	27.33	0.33	1715.96	0.09	0.08	0.25	1.9483	0.3265	0.1854	0.131
z8a	ML190	0.41	5.87	1.00	195.79	0.74	#####	0.13	0.07	0.07	1.7906	0.1305	0.1754	0.069
z8b	ML190	0.47	3.74	1.00	178.31	0.53	#####	0.14	0.07	0.07	1.8082	0.1460	0.1768	0.0882
z9	M178	0.57	0.13	0.96	7.25	0.48	439.96	0.17	0.08	0.61	1.8830	0.8274	0.1813	0.420
z10	M213	0.99	2.54	1.00	171.82	0.42	9077.43	0.30	0.07	0.08	1.7637	0.1403	0.1737	0.072
z11	M234	0.73	1.42	1.00	89.59	0.43	5032.36	0.22	0.07	0.09	1.7309	0.1573	0.1714	0.077
<b>NW1-61.5</b>														
z1	ML60	0.961	0.9103	99.69%	110	0.23	5858	0.291	0.075928	0.106	1.9283	0.1677	0.1843	0.079
z2a	ML58	0.621	0.7567	99.15%	37	0.54	2133	0.188	0.075629	0.174	1.9050	0.2433	0.1828	0.102
z2b	ML58	0.574	0.719	0.993	46.136	0.40	#####	0.174	0.075643	0.192	1.9077	0.2526	0.1830	0.093
<b>AF1-29.3</b>														
z1	S93	0.447	0.947	0.998	#####	0.16	#####	0.136	0.073715	0.089	1.7578	0.1516	0.1730	0.075
z2	S226	0.537	0.167	0.983	18.255	0.23	#####	0.163	0.072543	0.415	1.6837	0.5326	0.1684	0.240
z3	S220	0.387	0.416	0.994	51.429	0.20	#####	0.118	0.073865	0.152	1.7709	0.2204	0.1740	0.097
z4 U-Daly	S216	0.597	0.057	0.962	7.918	0.19	475.622	0.181	0.074400	1.503	1.7963	1.6299	0.1752	0.370
z4 U-Farad	S216	0.597	0.057	0.962	7.918	0.19	475.622	0.181	0.074400	1.503	1.7955	1.6699	0.1751	0.518
z6	S160	0.481	0.097	0.964	8.053	0.30	497.298	0.146	0.073454	0.739	1.7312	0.8878	0.1710	0.313
z7	S164	0.497	0.267	0.989	27.868	0.24	#####	0.151	0.075114	0.232	1.8752	0.3068	0.1811	0.118

(a) z1, z2 etc. are labels for single zircon grains or fragments annealed and chemically abraded after Mattinson (2005).

(b) Corresponding LA-ICPMS spot number in Table DR1

(c) Model Th/U ratio iteratively calculated from the radiogenic <sup>208</sup>Pb/<sup>206</sup>Pb ratio and <sup>206</sup>Pb/<sup>238</sup>U age.

(d) Pb\* and Pb<sub>c</sub> represent radiogenic and common Pb, respectively; mol % <sup>206</sup>Pb\* with respect to radiogenic, blank and initial common Pb.

(e) Measured ratio corrected for spike and fractionation only. Fractionation estimated at 0.18 +/- 0.03 ‰/a.m.u. for Daly analyses, based on analysis of N

(f) Corrected for fractionation, spike, and common Pb; up to 1 pg of common Pb was assumed to be procedural blank: <sup>206</sup>Pb/<sup>204</sup>Pb = 18.042 ± 0.61‰; 20

Excess over blank was assigned to initial common Pb, using the Stacey and Kramers (1975) two-stage Pb isotope evolution model at the nominal samp

(g) Errors are 2-sigma, propagated using the algorithms of Schmitz and Schoene (2007).

(h) Calculations are based on the decay constants of Hiess et al. (2012). <sup>206</sup>Pb/<sup>238</sup>U and <sup>207</sup>Pb/<sup>206</sup>Pb ages corrected for initial disequilibrium in <sup>230</sup>Th/.

Isotopic Ages						
corr. coef.	$\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$		$\frac{^{207}\text{Pb}}{^{235}\text{U}}$		$\frac{^{206}\text{Pb}}{^{238}\text{U}}$	
	(h)	(g)	(h)	(g)	(h)	(g)
0.950	992.88	1.59	992.63	0.90	992.51	0.64
0.859	1036.23	2.47	1035.70	1.23	1035.45	0.85
0.653	1035.28	13.59	1035.66	5.47	1035.85	3.22
0.931	1081.21	1.62	1080.62	0.96	1080.33	0.72
0.925	1019.45	1.79	1018.26	0.98	1017.71	0.69
0.584	1024.51	14.53	1029.34	5.48	1031.61	2.75
0.611	1038.85	16.26	1035.18	6.28	1033.44	3.27
0.863	1076.06	2.13	1074.82	1.20	1074.22	1.02
0.964	1096.61	1.26	1095.95	0.86	1095.62	0.72
0.911	1096.14	1.81	1095.68	1.05	1095.45	0.79
0.698	1101.25	5.06	1097.86	2.19	1096.15	1.32
0.967	1042.08	1.33	1042.05	0.85	1042.04	0.67
0.929	1046.24	1.45	1048.43	0.95	1049.48	0.85
0.706	1077.09	12.22	1075.12	5.49	1074.14	4.16
0.942	1032.08	1.54	1032.19	0.91	1032.25	0.69
0.904	1021.13	1.90	1020.07	1.01	1019.58	0.73
0.874	1092.29	2.12	1090.96	1.12	1090.30	0.79
0.795	1084.35	3.48	1082.85	1.62	1082.10	1.02
0.754	1084.73	3.85	1083.78	1.68	1083.31	0.93
0.908	1032.78	1.80	1030.05	0.98	1028.77	0.72
0.661	1000.29	8.43	1002.36	3.39	1003.31	2.23
0.819	1036.87	3.07	1034.85	1.43	1033.89	0.92
0.444	1051.44	30.28	1044.12	10.63	1040.63	3.55
0.462	1051.44	30.28	1043.83	10.89	1040.20	4.98
0.612	1025.60	14.95	1020.19	5.71	1017.67	2.95
0.749	1070.65	4.66	1072.37	2.03	1073.22	1.17

IBS-981 and NBS-982.

$^{17}\text{Pb}/^{204}\text{Pb} = 15.537 \pm 0.52\%$ ;  $^{208}\text{Pb}/^{204}\text{Pb} = 37.686 \pm 0.63\%$  (all uncertainties 1-sigma).

le age.

$^{238}\text{U}$  using  $\text{Th}/\text{U}$  [magma] = 3.