

Ganderia-Laurentia collision in the Caledonides of Great Britain and Ireland.

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Analytical procedures and results: U-Pb detrital zircon geochronology

Detrital zircons were analysed at the University of Alberta Radiogenic Isotope facility. Samples were crushed and zircons were separated and concentrated by standard techniques using a Wilfley table, heavy liquids and magnetic separator. The grains were ablated using a New Wave Research UP213 Nd:YAG with aperture imaging system. The wavelength was 213 nm, with a fluence of 3 J cm^{-2} , a 4 Hz pulse rate and a spot size of 40 μm . Ablated ions were analysed with a NuPlasma multicollector ICP-MS with plasma power, gas flows, detector configuration and isotope measurements as described by Simonetti et al. (2005). Results from each sample site were recorded in 30 one-second integrations after a settling time of 3 s. Blanks and standards were recorded for the same duration as unknowns.

For the Southern Uplands samples, analysed first, separated zircons were picked, avoiding cracked or altered grains, and ~200 grains were mounted in an epoxy mount and polished to a depth required to approximately expose grain centres. Ablation points were selected using a combination of electron backscatter images, reflected, and transmitted light, so as to avoid obvious inclusions, discontinuities and cracks. Grains were analysed in sequences of 10 or 12, preceded and followed by at least two analyses of standards. Results were normalized using the in-house standard LH94-15 with isotopic ratios determined by thermal ionization mass-spectrometry (TIMS) as quoted by Simonetti et al. (2005), yielding a concordant age of 1830 Ma.

A variant of this procedure was used for the peri-Gondwanan samples, containing larger proportions of Neoproterozoic and younger grains. We prepared a random group of >300 grains from the mineral separation process, using picking to remove only obvious pyrite and other non-zircon grains. We identified zircon amongst the mounted grains using microprobe imaging. This process ensured an unbiased sampling of grains, although it probably resulted in a higher proportion of discordant and reset grains, as cloudy, metamict grains were not excluded. In addition, we included a secondary in-house standard GJ1-32 with a TIMS age of 606 Ma. Younger grains, with raw $^{207}\text{Pb}/^{206}\text{Pb}$ ratios less than or equal to 0.0658, corresponding to an age of 800 Ma, were normalized with this standard; grains with higher raw $^{207}\text{Pb}/^{206}\text{Pb}$ ratios were normalized with LH94-15. Age uncertainties are reported at 2σ ; the $^{207}\text{Pb}/^{206}\text{Pb}$ age is reported for grains with $^{207}\text{Pb}/^{206}\text{Pb}$ age older than 800 Ma; the $^{206}\text{Pb}/^{238}\text{U}$ age is reported for younger grains.

Data reduction was carried out using the procedure of Simonetti et al. (2005) using the same decay constants and error propagation as contained therein. All errors are quoted at 2-sigma level, equivalent to ~95% confidence that the actual value lies between the stated error limits. Analysis of each sample was completed in one day. For runs where analyses of standards showed significant variations in apparent isotopic ratios during the day, grains were normalized in 2-3 groups, bracketed by the appropriate analyses of standards. Data were collected to enable ^{204}Pb -correction. However, excess ion signal at atomic mass 204, described by Simonetti et al. (2005), varied during the course of the sampling runs. The ^{204}Pb -correction was therefore applied only for the minority of grains where the signal at atomic mass 204 was above 500 counts per second, indicating the presence of significant amounts of actual ^{204}Pb .

Simonetti, A., Heaman, L. M., Hartlaub, R. P., Creaser, R. A., MacHattie, T. G., and Böhm, C., 2005, U-Pb zircon dating by laser ablation-MC-ICP-MS using a new multiple ion counting Faraday collector array: *Journal of Analytical Atomic Spectrometry*, v. 20, p. 677-686.

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
AX 2661 -1 40um	139872	47	0.32610	0.00345	36.24417	1.85167	0.80610	0.04029	0.978	no	3599	16	3673	49	3811	142	-7.8
AX 2661 -2 40um	107449	42	0.05722	0.00067	0.61013	0.03204	0.07734	0.00396	0.975	no	500	25	484	20	480	24	4.1
AX 2661 -3 40um	78532	64	0.07513	0.00088	1.86695	0.09550	0.18022	0.00897	0.973	no	1072	23	1069	33	1068	49	0.4
AX 2661 -4 40um	195752	75	0.19304	0.00221	14.16178	0.72252	0.53206	0.02645	0.974	no	2768	19	2761	47	2750	110	0.8
AX 2661 -5 40um	129418	56	0.08254	0.00092	2.44033	0.12664	0.21442	0.01087	0.976	no	1258	22	1255	37	1252	57	0.5
AX 2661 -6 40um	196047	47	0.08762	0.00093	2.87574	0.14737	0.23803	0.01193	0.978	no	1374	20	1376	38	1376	62	-0.2
AX 2661 -8 40um	193330	26	0.05692	0.00060	0.63771	0.03322	0.08126	0.00414	0.979	no	488	23	501	20	504	25	-3.3
AX 2661 -9 40um	290668	39	0.07680	0.00080	1.92382	0.10312	0.18167	0.00955	0.981	no	1116	21	1089	35	1076	52	3.9
AX 2661 -10 40um	51538	23	0.05564	0.00066	0.59151	0.03064	0.07711	0.00389	0.974	no	438	26	472	19	479	23	-9.7
AX 2661 -13 40um	466496	25	0.07427	0.00077	1.87197	0.09605	0.18279	0.00919	0.979	no	1049	21	1071	33	1082	50	-3.4
AX 2661 -14 40um	59092	22	0.19184	0.00210	13.92626	0.73774	0.52649	0.02729	0.979	no	2758	18	2745	49	2727	114	1.4
AX 2661 -15 40um	86718	21	0.07441	0.00083	1.78035	0.09177	0.17352	0.00873	0.976	no	1053	22	1038	33	1031	48	2.2
AX 2661 -16 40um	227337	57	0.07826	0.00088	2.02448	0.10578	0.18762	0.00958	0.977	no	1153	22	1124	35	1108	52	4.2
AX 2661 -17 40um	128047	8	0.18726	0.00192	13.23673	0.68604	0.51267	0.02604	0.980	no	2718	17	2697	48	2668	110	2.3
AX 2661 -18 40um	1822578	22	0.07280	0.00073	1.81611	0.09288	0.18094	0.00907	0.981	no	1008	20	1051	33	1072	49	-6.9
AX 2661 -19 40um	278953	14	0.07335	0.00076	1.74654	0.09185	0.17270	0.00891	0.981	no	1024	21	1026	33	1027	49	-0.4
AX 2661 -20 40um	1602660	16	0.09467	0.00095	3.36395	0.17011	0.25771	0.01277	0.980	no	1522	19	1496	39	1478	65	3.2
AX 2661 -22 40um	681817	38	0.18363	0.00187	12.71116	0.65144	0.50205	0.02521	0.980	no	2686	17	2658	47	2623	107	2.9
AX 2661 -23 40um	351260	12	0.11169	0.00121	5.05033	0.26395	0.32794	0.01677	0.978	no	1827	20	1828	43	1828	81	-0.1
AX 2661 -24 40um	361182	15	0.07473	0.00081	1.84334	0.09526	0.17890	0.00904	0.978	no	1061	22	1061	33	1061	49	0.0
AX 2661 -25 40um	218467	8	0.07435	0.00080	1.74621	0.09205	0.17034	0.00879	0.979	no	1051	22	1026	33	1014	48	3.8
AX 2661 -26 40um	45457	3	0.09662	0.00107	3.43622	0.17698	0.25793	0.01297	0.977	no	1560	21	1513	40	1479	66	5.8
AX 2661 -27 40um	91519	7	0.07341	0.00082	1.66722	0.08851	0.16472	0.00855	0.977	no	1025	23	996	33	983	47	4.5
AX 2661 -28 40um	94306	10	0.07194	0.00080	1.65025	0.08396	0.16636	0.00826	0.976	no	984	23	990	32	992	45	-0.8
AX 2661 -29 40um	77606	7	0.05651	0.00069	0.58587	0.03030	0.07519	0.00378	0.971	no	472	27	468	19	467	23	1.1
AX 2661 -30 40um	92161	9	0.07873	0.00100	2.10156	0.11818	0.19360	0.01060	0.974	no	1165	25	1149	38	1141	57	2.3
AX 2661 -31 40um	156931	4	0.07366	0.00080	1.72216	0.08987	0.16958	0.00865	0.978	no	1032	22	1017	33	1010	48	2.3
AX 2661 -32 40um	95989	5	0.05740	0.00069	0.61595	0.03308	0.07782	0.00407	0.975	no	507	26	487	21	483	24	4.9
AX 2661 -33 40um	101258	7	0.07507	0.00088	1.83202	0.09585	0.17699	0.00902	0.974	no	1070	23	1057	34	1051	49	2.0
AX 2661 -34 40um	108362	7	0.07450	0.00083	1.68934	0.08907	0.16445	0.00847	0.977	no	1055	22	1005	33	981	47	7.5
AX 2661 -36 40um	157746	14	0.07680	0.00090	1.87962	0.10119	0.17751	0.00933	0.976	no	1116	23	1074	35	1053	51	6.1
AX 2661 -37 40um	249313	12	0.08823	0.00094	2.89286	0.15033	0.23780	0.01210	0.979	no	1387	20	1380	38	1375	63	1.0
AX 2661 -38 40um	505245	16	0.07757	0.00092	1.94160	0.10693	0.18154	0.00976	0.977	no	1136	23	1096	36	1075	53	5.8
AX 2661 -39 40um	139048	8	0.08966	0.00101	2.94400	0.14966	0.23814	0.01180	0.975	no	1418	21	1393	38	1377	61	3.2
AX 2661 -40 40um	74237	0	0.07531	0.00086	1.82699	0.09768	0.17595	0.00919	0.977	no	1077	23	1055	34	1045	50	3.2
AX 2661 -41 40um	211924	0	0.07117	0.00076	1.55676	0.08149	0.15865	0.00813	0.979	no	962	22	953	32	949	45	1.5
AX 2661 -42 40um	135763	4	0.07708	0.00087	1.91155	0.09658	0.17985	0.00886	0.975	no	1123	22	1085	33	1066	48	5.5
AX 2661 -43 40um	357069	1	0.07317	0.00076	1.69413	0.08701	0.16793	0.00845	0.979	no	1019	21	1006	32	1001	46	1.9
AX 2661 -44 40um	74974	1	0.08945	0.00102	3.01641	0.15573	0.24458	0.01231	0.975	no	1414	22	1412	39	1410	63	0.3
AX 2661 -45 40um	151379	27	0.08756	0.00138	2.71744	0.14862	0.22509	0.01179	0.958	no	1373	30	1333	40	1309	62	5.2
AX 2661 -46 40um	168896	5	0.07570	0.00082	1.85423	0.09762	0.17766	0.00915	0.978	no	1087	22	1065	34	1054	50	3.3
AX 2661 -47 40um	287378	5	0.07488	0.00078	1.92142	0.09968	0.18610	0.00946	0.980	no	1065	21	1089	34	1100	51	-3.6
AX 2661 -49 40um	667945	81	0.17164	0.00178	11.00379	0.56636	0.46496	0.02344	0.979	no	2574	17	2523	47	2461	102	5.2
AX 2661 -51 40um	129132	48	0.07623	0.00083	1.86899	0.09669	0.17781	0.00899	0.978	no	1101	22	1070	34	1055	49	4.5
AX 2661 -52 40um	105209	49	0.07499	0.00092	1.72099	0.09102	0.16645	0.00856	0.973	no	1068	24	1016	33	993	47	7.6
AX 2661 -53 40um	220499	53	0.09980	0.00103	3.70849	0.19676	0.26950	0.01403	0.981	no	1620	19	1573	42	1538	71	5.7
AX 2661 -54 40um	109755	55	0.07605	0.00092	1.75910	0.08987	0.16775	0.00833	0.972	no	1096	24	1031	33	1000	46	9.5
AX 2661 -56 40um	163278	62	0.05695	0.00061	0.59935	0.03129	0.07633	0.00390	0.979	no	490	23	477	20	474	23	3.2
AX 2661 -58 40um	284035	32	0.07451	0.00080	1.76198	0.09314	0.17152	0.00888	0.979	no	1055	21	1032	34	1020	49	3.6
AX 2661 -60 40um	276016	25	0.09148	0.00095	3.06973	0.16165	0.24337	0.01256	0.980	no	1457	20	1425	40	1404	65	4.0
AX 2661 -62 40um	160091	40	0.08718	0.00095	2.81654	0.14556	0.23431	0.01184	0.978	no	1365	21	1360	38	1357	62	0.6
AX 2661 -65 40um	418722	45	0.08316	0.00123	2.30827	0.11905	0.20130	0.00995	0.958	no	1273	29	1215	36	1182	53	7.8
AX 2661 -66 40um	606372	33	0.07425	0.00077	1.77499	0.09213	0.17338	0.00882	0.980	no	1048	21	1036	33	1031	48	1.8
AX 2661 -67 40um	66945	45	0.08832	0.00103	2.81946	0.15305	0.23153	0.01227	0.976	no	1389	22	1361	40	1343	64	3.7
AX 2661 -68 40um	559556	60	0.07430	0.00076	1.74915	0.09305	0.17074	0.00892	0.982	no	1050	20	1027	34	1016	49	3.4
AX 2661 -69 40um	195137	58	0.15516	0.00165	8.97102	0.48981	0.41934	0.02246	0.981	no	2404	18	2335	49	2257	101	7.2
AX 2661 -70 40um	218327	43	0.07691	0.00085	1.83715	0.09556	0.17324	0.00880	0.977	no	1119	22	1059	34	1030	48	8.6
AX 2661 -71 40um	141839	54	0.09543	0.00156	3.37163	0.17712	0.25625	0.01279	0.950	no	1537	30	1498	40	1471	65	4.8
AX 2661 -72 40um	367121	84	0.08309	0.00088	2.41279	0.12576	0.21061	0.01075	0.979	no	1271	20	1246	37	1232	57	3.4
AX 2661 -73 40um	123438	125	0.07416	0.00084	1.71680	0.08861	0.16791	0.00845	0.975	no	1046	23	1015	33	1001	46	4.7

Isotopic ratios					Apparent age summary												
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
AX 2661 -74 40um	116381	122	0.05692	0.00065	0.57060	0.02934	0.07270	0.00365	0.975	no	488	25	458	19	452	22	7.6
AX 2661 -75 40um	76810	113	0.09078	0.00104	2.87866	0.15586	0.22999	0.01217	0.978	no	1442	22	1376	40	1334	63	8.3
AX 2661 -76 40um	215772	81	0.10612	0.00114	4.42225	0.23069	0.30225	0.01543	0.979	no	1734	20	1717	42	1702	76	2.1
AX 2661 -77 40um	632667	64	0.05656	0.00059	0.59142	0.03104	0.07584	0.00390	0.980	no	474	23	472	20	471	23	0.7
AX 2661 -80 40um	41994	43	0.05697	0.00074	0.58564	0.03050	0.07456	0.00376	0.968	no	490	28	468	19	464	23	5.7
AX 2661 -81 40um	158216	46	0.07423	0.00086	1.69760	0.08867	0.16588	0.00845	0.975	no	1048	23	1008	33	989	47	6.0
AX 2661 -82 40um	653095	63	0.07436	0.00077	1.73616	0.09029	0.16933	0.00863	0.980	no	1051	21	1022	33	1008	47	4.4
AX 2661 -83 40um	51513	42	0.07576	0.00100	1.77769	0.09340	0.17019	0.00865	0.968	no	1089	26	1037	34	1013	48	7.5
AX 2661 -84 40um	37716	63	0.07722	0.00111	1.85785	0.09899	0.17449	0.00895	0.963	no	1127	28	1066	35	1037	49	8.7
AX 2661 -85 40um	50270	60	0.07794	0.00144	1.90033	0.10036	0.17682	0.00874	0.936	no	1145	36	1081	35	1050	48	9.1
AX 2661 -86 40um	241739	52	0.09339	0.00099	3.15308	0.16704	0.24488	0.01271	0.980	no	1496	20	1446	40	1412	65	6.2
AX 2661 -87 40um	86143	65	0.07541	0.00089	1.80025	0.09295	0.17314	0.00870	0.973	no	1079	24	1046	33	1029	48	5.0
AX 2661 -88 40um	117432	75	0.09918	0.00120	3.58236	0.18143	0.26197	0.01288	0.971	no	1609	22	1546	39	1500	65	7.6
AX 2661 -89 40um	156791	97	0.07452	0.00084	1.71933	0.09058	0.16734	0.00861	0.977	no	1056	23	1016	33	997	47	5.9
AX 2661 -90 40um	85534	86	0.07633	0.00089	1.88609	0.09962	0.17922	0.00924	0.976	no	1104	23	1076	34	1063	50	4.0
AX 2661 -91 40um	79706	110	0.07524	0.00086	1.73825	0.08923	0.16756	0.00838	0.975	no	1075	23	1023	33	999	46	7.7
AX 2661 -93 40um	118763	110	0.16807	0.00178	10.53986	0.57892	0.45482	0.02451	0.981	no	2539	18	2483	50	2417	108	5.8
AX 2661 -94 40um	214298	122	0.10483	0.00113	4.18987	0.21650	0.28988	0.01465	0.978	no	1711	20	1672	41	1641	73	4.7
AX 2661 -95 40um	174964	81	0.07470	0.00081	1.73729	0.08948	0.16867	0.00849	0.978	no	1060	22	1022	33	1005	47	5.7
AX 2661 -97 40um	312805	106	0.18647	0.00193	12.33216	0.62876	0.47965	0.02395	0.979	no	2711	17	2630	47	2526	104	8.3
AX 2661 -99 40um	189936	117	0.11004	0.00115	4.61726	0.25097	0.30432	0.01623	0.981	no	1800	19	1752	44	1713	80	5.5
AX 2661 -100 40um	316768	105	0.16315	0.00166	9.68257	0.52022	0.43042	0.02270	0.982	no	2489	17	2405	48	2308	102	8.6
AX 2661 -101 40um	350142	97	0.10333	0.00109	4.07299	0.20899	0.28587	0.01435	0.978	no	1685	19	1649	41	1621	72	4.3
AX 2661 -103 40um	257002	185	0.05879	0.00077	0.66517	0.03498	0.08205	0.00418	0.969	no	559	28	518	21	508	25	9.5
AX 2661 -104 40um	97261	150	0.07946	0.00087	2.00127	0.10428	0.18267	0.00930	0.978	no	1184	22	1116	35	1082	51	9.4
AX 2661 -106 40um	196081	90	0.11760	0.00121	5.25158	0.26945	0.32387	0.01628	0.980	no	1920	18	1861	43	1809	79	6.7
AX 2661 -108 40um	176416	87	0.08378	0.00089	2.34904	0.12863	0.20334	0.01092	0.981	no	1288	21	1227	38	1193	58	8.0
AX 2661 -112 40um	481173	84	0.11289	0.00116	4.97633	0.25744	0.31972	0.01621	0.980	no	1846	18	1815	43	1788	79	3.6
AX 2661 -113 40um	105621	114	0.11752	0.00127	5.22452	0.28172	0.32243	0.01703	0.980	no	1919	19	1857	45	1802	83	7.0
AX 2661 -115 40um	148875	91	0.07551	0.00082	1.72142	0.09100	0.16534	0.00855	0.979	no	1082	22	1017	33	986	47	9.5
AX 2661 -118 40um	739051	96	0.05668	0.00058	0.57264	0.02935	0.07327	0.00368	0.980	no	479	23	460	19	456	22	5.1
AX 2661 -122 40um	162557	140	0.10074	0.00112	3.70879	0.19057	0.26702	0.01339	0.976	no	1638	21	1573	40	1526	68	7.7
AX 2661 -124 40um	583972	134	0.07559	0.00078	1.83820	0.09443	0.17637	0.00887	0.979	no	1084	21	1059	33	1047	48	3.7
AX 2661 -125 40um	113274	151	0.07709	0.00095	1.83643	0.09353	0.17278	0.00854	0.970	no	1123	24	1059	33	1027	47	9.2
Discordance >10% or <-10%																	
AX 2661 -7 40um	290857	82	0.12458	0.00171	2.43369	0.13049	0.14169	0.00734	0.967	no	2023	24	1253	38	854	41	61.6
AX 2661 -11 40um	100141	27	0.07726	0.00099	1.82255	0.09606	0.17109	0.00874	0.970	no	1128	25	1054	34	1018	48	10.5
AX 2661 -12 40um	63644	22	0.05926	0.00076	0.64207	0.03327	0.07858	0.00394	0.969	no	577	28	504	20	488	24	16.0
AX 2661 -21 40um	541530	15	0.17921	0.00184	10.45780	0.54098	0.42323	0.02146	0.980	no	2646	17	2476	47	2275	96	16.6
AX 2661 -35 40um	29812	1475	0.78016	0.06934	86.44422	10.73104	80.362	0.06965	0.698	yes	4886	121	4540	118	3802	244	29.1
AX 2661 -48 40um	49485	12	0.06039	0.00083	0.74747	0.03821	0.08978	0.00442	0.963	no	617	29	567	22	554	26	10.7
AX 2661 -50 40um	95729	59	0.06591	0.00141	0.76119	0.04148	0.08376	0.00420	0.919	no	804	44	575	24	519	25	36.9
AX 2661 -55 40um	52875	45	0.06102	0.00097	0.65772	0.03608	0.07818	0.00411	0.957	no	640	34	513	22	485	25	25.1
AX 2661 -57 40um	121072	66	0.07342	0.00192	1.40416	0.07794	0.13870	0.00679	0.882	no	1026	52	891	32	837	38	19.6
AX 2661 -59 40um	43815	26	0.07417	0.00235	0.89884	0.05363	0.08789	0.00445	0.848	no	1046	63	651	28	543	26	50.1
AX 2661 -61 40um	58258	57	0.06116	0.00103	0.74080	0.03932	0.08785	0.00442	0.948	no	645	36	563	23	543	26	16.5
AX 2661 -63 40um	150149	29	0.05903	0.00072	0.64058	0.03300	0.07870	0.00394	0.972	no	568	26	503	20	488	24	14.6
AX 2661 -64 40um	774922	122	0.18698	0.00203	10.84220	0.56787	0.42055	0.02155	0.978	no	2716	18	2510	48	2263	97	19.7
AX 2661 -78 40um	122183	78	0.05955	0.00088	0.58942	0.03115	0.07178	0.00364	0.960	no	587	32	470	20	447	22	24.7
AX 2661 -79 40um	58098	48	0.05926	0.00081	0.62165	0.03220	0.07608	0.00380	0.964	no	577	30	491	20	473	23	18.7
AX 2661 -92 40um	167480	153	0.07828	0.00094	1.89261	0.10107	0.17536	0.00913	0.975	no	1154	24	1078	35	1042	50	10.5
AX 2661 -96 40um	227820	130	0.05961	0.00073	0.58437	0.03062	0.07110	0.00362	0.972	no	589	26	467	19	443	22	25.7
AX 2661 -98 40um	155777	119	0.06069	0.00094	0.63412	0.03301	0.07578	0.00377	0.955	no	628	33	499	20	471	23	26.0
AX 2661 -102 40um	138956	138	0.05825	0.00071	0.56428	0.02922	0.07025	0.00354	0.972	no	539	26	454	19	438	21	19.5
AX 2661 -105 40um	113583	138	0.05808	0.00076	0.58696	0.03007	0.07330	0.00363	0.967	no	533	28	469	19	456	22	14.9
AX 2661 -107 40um	246516	90	0.07464	0.00082	0.99463	0.05225	0.09665	0.00496	0.978	no	1059	22	701	26	595	29	45.9
AX 2661 -109 40um	96375	65	0.08490	0.00133	2.27183	0.12003	0.19406	0.00979	0.955	no	1313	30	1204	37	1143	53	14.1
AX 2661 -110 40um	153890	68	0.05830	0.00077	0.57575	0.02966	0.07163	0.00357	0.967	no	541	29	462	19	446	21	18.2
AX 2661 -111 40um	589416	66	0.18676	0.00192	10.91126	0.55404	0.42374	0.02107	0.979	no	2714	17	2516	46	2277	95	19.0
AX 2661 -114 40um	353954	122	0.17993	0.00194	9.86438	0.50489	0.39761	0.01990	0.978	no	2652	18	2422	46	2158	91	21.9
AX 2661 -116 40um	103735	89	0.07333	0.00085	1.52550	0.08059	0.15088	0.00778	0.976	no	1023	23	941	32	906	43	12.3

AX2661A British Grid NX 23578 57529

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
AX 2661 -117 40um	41516	99	0.07724	0.00091	1.82093	0.09525	0.17098	0.00871	0.974	no	1127	23	1053	34	1017	48	10.5
AX 2661 -119 40um	60559	113	0.05796	0.00071	0.58372	0.02977	0.07304	0.00361	0.970	no	528	27	467	19	454	22	14.5
AX 2661 -120 40um	22851	135	0.08018	0.00158	1.79439	0.09614	0.16231	0.00808	0.930	no	1201	38	1043	34	970	45	20.8
AX 2661 -121 40um	35532	154	0.08644	0.00191	1.85403	0.10127	0.15557	0.00777	0.914	no	1348	42	1065	35	932	43	33.1
AX 2661 -123 40um	40069	129	0.07637	0.00119	1.65801	0.08587	0.15746	0.00778	0.954	no	1105	31	993	32	943	43	15.8
AX 2661 -126 40um	81558	158	0.07879	0.00103	1.83330	0.09411	0.16876	0.00838	0.967	no	1167	26	1057	33	1005	46	15.0
AX 2661 -127 40um	80800	139	0.05900	0.00074	0.59029	0.03035	0.07256	0.00362	0.970	no	567	27	471	19	452	22	21.1

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15 -1 40um		0.111855	0.000094	0.368532	0.001992
LH94-15 -2 40um		0.112084	0.000083	0.356584	0.002136
LH94-15 -3 40um		0.111852	0.000126	0.352587	0.002318
LH94-15 -4 40um		0.111920	0.000118	0.350571	0.002522
LH94-15 -5 40um		0.112335	0.000114	0.338181	0.001951
LH94-15 -6 40um		0.111897	0.000075	0.339800	0.002559
LH94-15 -7 40um		0.112130	0.000087	0.334634	0.002129
LH94-15 -8 40um		0.111898	0.000089	0.334024	0.001660
LH94-15 -9 40um		0.112381	0.000132	0.340182	0.002779
LH94-15 -10 40um		0.112183	0.000115	0.337406	0.002446
LH94-15 -11 40um		0.112172	0.000090	0.335009	0.002621
LH94-15 -12 40um		0.112063	0.000083	0.333932	0.002442
LH94-15 -13 40um		0.112091	0.000111	0.327226	0.001684
LH94-15 -14 40um		0.112511	0.000111	0.336128	0.002562
LH94-15 -15 40um		0.112243	0.000099	0.336385	0.002235
LH94-15 -16 40um		0.113005	0.000132	0.329235	0.002182
LH94-15 -17 40um		0.112769	0.000119	0.332482	0.002470
LH94-15 -18 40um		0.112332	0.000099	0.331767	0.002495
LH94-15 -19 40um		0.112675	0.000108	0.326933	0.002138
LH94-15-20 40um		0.113155	0.000115	0.324034	0.002447
LH94-15-21 40um		0.112855	0.000145	0.322391	0.002323
LH94-15 -22 40um		0.112789	0.000108	0.322914	0.002242
LH94-15 -23 40um		0.113475	0.000137	0.327687	0.003098
LH94-15 -24 40um		0.113096	0.000169	0.324819	0.002271
LH94-15 -25 40um		0.113296	0.000141	0.322904	0.002552
LH94-15 -26 40um		0.112579	0.000114	0.330116	0.001797
LH94-15 -27 40um		0.112413	0.000104	0.322444	0.002216
LH94-15 -28 40um		0.112572	0.000104	0.320374	0.002101
LH94-15 -29 40um		0.112311	0.000084	0.324303	0.002110
LH94-15 -30 40um		0.112444	0.000062	0.328168	0.001959
LH94-15 -31 40um		0.112719	0.000130	0.323519	0.001748

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
FN033-3 40um	32317	98	0.06971	0.00114	1.52775	0.06997	0.15895	0.00680	0.935	no	920	33	942	28	951	38	-3.6
FN033-5 40um	455513	153	0.05980	0.00065	0.72427	0.02509	0.08784	0.00289	0.949	no	596	23	553	15	543	17	9.4
FN033-6 40um	123022	149	0.07633	0.00097	1.86097	0.07389	0.17683	0.00665	0.948	no	1104	25	1067	26	1050	36	5.3
FN033-7 40um	346013	330	0.07931	0.00123	2.04617	0.11407	0.18712	0.01002	0.960	no	1180	30	1131	37	1106	54	6.8
FN033-8 40um	321616	98	0.07767	0.00081	2.02276	0.07003	0.18887	0.00623	0.953	no	1139	21	1123	23	1115	34	2.2
FN033-9 40um	213838	78	0.10633	0.00112	4.55534	0.17361	0.31072	0.01138	0.961	no	1737	19	1741	31	1744	56	-0.5
FN033-10 40um	305397	106	0.11118	0.00114	5.07361	0.20054	0.33098	0.01263	0.966	no	1819	19	1832	33	1843	61	-1.5
FN033-11 40um	377819	110	0.11217	0.00115	5.13014	0.19510	0.33170	0.01215	0.963	no	1835	18	1841	32	1847	59	-0.7
FN033-12 40um	619182	98	0.09249	0.00098	3.17383	0.12029	0.24888	0.00906	0.960	no	1477	20	1451	29	1433	47	3.4
FN033-13 40um	202446	69	0.07463	0.00082	1.83372	0.08051	0.17821	0.00757	0.968	no	1058	22	1058	28	1057	41	0.1
FN033-15 40um	356023	60	0.07019	0.00074	1.52222	0.05346	0.15728	0.00527	0.954	no	934	21	939	21	942	29	-0.9
FN033-16 40um	135667	81	0.08850	0.00106	2.89210	0.11213	0.23700	0.00874	0.951	no	1393	23	1380	29	1371	45	1.8
FN033-17 40um	78983	71	0.07769	0.00085	2.12674	0.07923	0.19854	0.00707	0.956	no	1139	22	1158	25	1167	38	-2.7
FN033-21 40um	238337	67	0.08550	0.00090	2.70077	0.09688	0.22909	0.00786	0.956	no	1327	20	1329	26	1330	41	-0.2
FN033-22 40um	56966	60	0.07240	0.00087	1.81507	0.06957	0.18181	0.00662	0.949	no	997	24	1051	25	1077	36	-8.7
FN033-24 40um	248877	82	0.07725	0.00083	1.97791	0.06844	0.18570	0.00611	0.950	no	1128	21	1108	23	1098	33	2.9
FN033-25 40um	111061	100	0.07521	0.00115	1.83183	0.07207	0.17665	0.00641	0.922	no	1074	30	1057	26	1049	35	2.6
FN033-26 40um	170283	76	0.18352	0.00207	13.14002	0.47695	0.51928	0.01791	0.950	no	2685	19	2690	34	2696	76	-0.5
FN033-27 40um	124832	81	0.08503	0.00090	2.61848	0.09860	0.22335	0.00807	0.959	no	1316	20	1306	27	1300	42	1.4
FN033-29 40um	49313	83	0.07208	0.00107	1.71849	0.06510	0.17292	0.00603	0.921	no	988	30	1015	24	1028	33	-4.4
FN033-30 40um	411440	87	0.05555	0.00059	0.53765	0.01857	0.07020	0.00231	0.952	no	434	23	437	12	437	14	-0.7
FN033-31 40um	119474	77	0.05503	0.00060	0.52785	0.01932	0.06957	0.00243	0.954	no	413	24	430	13	434	15	-5.1
FN033-32 40um	96365	76	0.07219	0.00088	1.63573	0.06060	0.16433	0.00575	0.945	no	991	24	984	23	981	32	1.1
FN033-33 40um	498075	70	0.10983	0.00112	4.77031	0.16793	0.31502	0.01061	0.957	no	1797	18	1780	29	1765	52	2.0
FN033-34 40um	91923	64	0.05650	0.00080	0.58703	0.02257	0.07535	0.00270	0.930	no	472	31	469	14	468	16	0.9
FN033-35 40um	25531	74	0.07069	0.00108	1.68353	0.06686	0.17272	0.00633	0.922	no	949	31	1002	25	1027	35	-9.0
FN033-36 40um	148737	76	0.08765	0.00094	2.72611	0.10327	0.22558	0.00819	0.959	no	1375	21	1336	28	1311	43	5.1
FN033-39 40um	177170	24	0.10088	0.00105	3.94927	0.13571	0.28393	0.00930	0.953	no	1640	19	1624	27	1611	47	2.0
FN033-42 40um	63020	20	0.08678	0.00116	2.64369	0.09385	0.22094	0.00726	0.926	no	1356	26	1313	26	1287	38	5.6
FN033-43 40um	117841	20	0.07292	0.00080	1.66440	0.06800	0.16555	0.00651	0.963	no	1012	22	995	26	988	36	2.6
FN033-44 40um	68086	32	0.05589	0.00076	0.51268	0.02117	0.06653	0.00259	0.944	no	448	30	420	14	415	16	7.6
FN033-45 40um	109145	31	0.05592	0.00069	0.54978	0.02037	0.07130	0.00249	0.943	no	449	27	445	13	444	15	1.2
FN033-46 40um	209193	29	0.07525	0.00078	1.85412	0.06565	0.17870	0.00605	0.956	no	1075	21	1065	23	1060	33	1.6
FN033-48 40um	76803	28	0.07801	0.00095	2.04490	0.07656	0.19011	0.00673	0.945	no	1147	24	1131	25	1122	36	2.4
FN033-49 40um	117756	28	0.09105	0.00103	3.02962	0.10905	0.24132	0.00825	0.949	no	1448	21	1415	27	1394	43	4.2
FN033-50 40um	126778	18	0.07421	0.00081	1.70995	0.05938	0.16711	0.00551	0.949	no	1047	22	1012	22	996	30	5.3
FN033-53 40um	39727	23	0.08617	0.00125	2.75401	0.10440	0.23181	0.00812	0.924	no	1342	28	1343	28	1344	42	-0.2
FN033-54 40um	214016	27	0.07472	0.00079	1.80759	0.06495	0.17546	0.00603	0.956	no	1061	21	1048	23	1042	33	1.9
FN033-55 40um	118136	28	0.09898	0.00109	3.83536	0.14216	0.28104	0.00995	0.955	no	1605	20	1600	29	1597	50	0.6
FN033-56 40um	219366	79	0.08776	0.00097	2.79729	0.12779	0.23118	0.01025	0.970	no	1377	21	1355	34	1341	53	2.9
FN033-59 40um	277865	31	0.05567	0.00059	0.54948	0.01897	0.07158	0.00235	0.951	no	439	24	445	12	446	14	-1.5
FN033-60 40um	565141	38	0.08524	0.00087	2.67592	0.09473	0.22769	0.00772	0.958	no	1321	20	1322	26	1322	40	-0.1
FN033-62 40um	259045	42	0.07242	0.00076	1.70191	0.06103	0.17045	0.00584	0.956	no	998	21	1009	23	1015	32	-1.8
FN033-63 40um	123191	31	0.09744	0.00111	3.64410	0.14351	0.27123	0.01022	0.957	no	1576	21	1559	31	1547	52	2.0
FN033-64 40um	462697	49	0.10053	0.00107	4.10157	0.15827	0.29591	0.01098	0.962	no	1634	20	1655	31	1671	54	-2.6
FN033-65 40um	165487	57	0.05609	0.00066	0.54423	0.01828	0.07037	0.00222	0.937	no	456	26	441	12	438	13	4.0
FN033-66 40um	91153	39	0.05531	0.00067	0.55880	0.02017	0.07327	0.00249	0.941	no	425	27	451	13	456	15	-7.5
FN033-67 40um	568907	74	0.07235	0.00078	1.80581	0.07411	0.18102	0.00717	0.965	no	996	22	1048	26	1073	39	-8.4
FN033-68 40um	107267	33	0.07213	0.00084	1.74619	0.06411	0.17557	0.00611	0.948	no	990	23	1026	23	1043	33	-5.8
FN033-69 40um	525972	59	0.07715	0.00080	2.03442	0.06926	0.19126	0.00620	0.952	no	1125	21	1127	23	1128	33	-0.3
FN033-70 40um	384680	41	0.10087	0.00103	4.20154	0.14444	0.30209	0.00992	0.955	no	1640	19	1674	28	1702	49	-4.3
FN033-71 40um	163652	42	0.22447	0.00231	18.84798	0.69572	0.60898	0.02158	0.960	no	3013	16	3034	35	3066	86	-2.2
FN033-72 40um	307776	50	0.09289	0.00097	3.35011	0.11189	0.26157	0.00830	0.950	no	1486	20	1493	26	1498	42	-0.9
FN033-73 40um	132356	62	0.07964	0.00092	2.21767	0.07601	0.20197	0.00652	0.941	no	1188	23	1187	24	1186	35	0.2
FN033-75 40um	320259	81	0.10123	0.00106	4.11951	0.14443	0.29516	0.00988	0.954	no	1647	19	1658	28	1667	49	-1.4
FN033-76 40um	129025	76	0.07525	0.00087	1.89844	0.06764	0.18297	0.00617	0.946	no	1075	23	1081	23	1083	34	-0.8
FN033-77 40um	394578	74	0.07392	0.00076	1.76704	0.06104	0.17337	0.00572	0.955	no	1039	21	1033	22	1031	31	0.9
FN033-78 40um	332341	73	0.07882	0.00082	2.12550	0.08723	0.19558	0.00777	0.968	no	1168	20	1157	28	1152	42	1.5
FN033-79 40um	232340	65	0.07458	0.00077	1.91115	0.06629	0.18586	0.00615	0.954	no	1057	21	1085	23	1099	33	-4.3
FN033-80 40um	185208	80	0.07418	0.00082	1.75594	0.06515	0.17167	0.00608	0.954	no	1046	22	1029	24	1021	33	2.6

FN033 British Grid NX 5856 4868

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Discordance >10% or <-10%																	
FN033-1 40um	152138	82	0.05670	0.00075	0.53214	0.01981	0.06807	0.00237	0.934	no	480	29	433	13	425	14	11.9
FN033-2 40um	238514	289	0.05976	0.00119	0.56614	0.02396	0.06871	0.00257	0.883	no	595	42	456	15	428	15	28.9
FN033-4 40um	58084	131	0.06625	0.00201	0.75640	0.03536	0.08280	0.00294	0.760	no	814	62	572	20	513	17	38.5
FN033-14 40um	60745	78	0.05839	0.00140	0.55702	0.02438	0.06919	0.00254	0.837	no	544	51	450	16	431	15	21.5
FN033-18 40um	32189	60	0.07205	0.00123	1.82150	0.07203	0.18336	0.00654	0.902	no	987	34	1053	26	1085	36	-10.8
FN033-19 40um	23218	71	0.07867	0.00274	1.78322	0.09005	0.16439	0.00602	0.725	no	1164	67	1039	32	981	33	16.9
FN033-20 40um	172251	77	0.05734	0.00089	0.57686	0.02452	0.07296	0.00289	0.931	no	505	34	462	16	454	17	10.4
FN033-23 40um	23939	54	0.07027	0.00130	1.76123	0.07066	0.18179	0.00648	0.888	no	936	37	1031	26	1077	35	-16.3
FN033-28 40um	210686	157	0.06088	0.00117	0.52064	0.02649	0.06203	0.00292	0.926	no	635	41	426	18	388	18	40.1
FN033-37 40um	337116	14	0.10380	0.00109	3.17534	0.11406	0.22187	0.00762	0.957	no	1693	19	1451	27	1292	40	26.1
FN033-38 40um	113490	23	0.16217	0.00215	8.51498	0.39123	0.38081	0.01675	0.957	no	2478	22	2288	41	2080	78	18.8
FN033-40 40um	1063154	2044	0.19271	0.00347	3.54505	0.16438	0.13342	0.00570	0.921	yes	2765	29	1537	36	807	32	75.1
FN033-41 40um	168552	23	0.09170	0.00100	2.79310	0.10033	0.22091	0.00756	0.953	no	1461	21	1354	27	1287	40	13.2
FN033-47 40um	204311	77	0.07494	0.00143	1.66268	0.06656	0.16092	0.00567	0.880	no	1067	38	994	25	962	31	10.6
FN033-51 40um	379169	35	0.08784	0.00105	2.08366	0.07092	0.17204	0.00549	0.937	no	1379	23	1143	23	1023	30	27.9
FN033-52 40um	185515	66	0.07622	0.00114	1.65995	0.06232	0.15796	0.00544	0.917	no	1101	30	993	24	945	30	15.2
FN033-57 40um	48167	43	0.05902	0.00129	0.61559	0.02644	0.07564	0.00280	0.861	no	568	47	487	16	470	17	17.9
FN033-58 40um	454297	257	0.06198	0.00162	0.61291	0.03038	0.07172	0.00302	0.849	no	674	55	485	19	446	18	34.9
FN033-61 40um	353606	126	0.05842	0.00110	0.55177	0.02588	0.06850	0.00294	0.915	no	545	41	446	17	427	18	22.4
FN033-74 40um	132821	213	0.08028	0.00239	1.92648	0.08987	0.17404	0.00625	0.769	no	1204	58	1090	31	1034	34	15.2

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15-19 40um	*	0.115062	0.000158	0.307886	0.002507
LH94-15-20 40um		0.114325	0.000146	0.308400	0.002538
LH94-15-21 40um		0.114174	0.000144	0.304607	0.002169
LH94-15-22 40um		0.114043	0.000149	0.299835	0.001918
LH94-15-23 40um		0.114074	0.000094	0.303292	0.001915
LH94-15-24 40um		0.113939	0.000097	0.302587	0.001722
LH94-15-25 40um		0.114334	0.000152	0.304271	0.002294
LH94-15-26 40um		0.114532	0.000131	0.307327	0.001778
LH94-15-27 40um		0.114089	0.000110	0.299595	0.002033
LH94-15-28 40um		0.113549	0.000134	0.304352	0.002300
LH94-15-29 40um		0.114237	0.000189	0.302004	0.002256
LH94-15-30 40um		0.114912	0.000157	0.303859	0.001774
LH94-15-31 40um		0.114722	0.000144	0.303918	0.002013
LH94-15-32 40um		0.114586	0.000149	0.304485	0.002314
LH94-15-33 40um		0.114536	0.000143	0.302070	0.002019
LH94-15-34 40um		0.114669	0.000153	0.304658	0.001724

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
FN035-1 40um	219038	69	0.07673	0.00082	1.97119	0.09035	0.18632	0.00831	0.972	no	1114	21	1106	30	1101	45	1.2
FN035-2 40um	294533	153	0.11198	0.00140	4.60808	0.23027	0.29846	0.01444	0.968	no	1832	23	1751	41	1684	71	9.2
FN035-3 40um	279787	71	0.11379	0.00120	5.27880	0.24116	0.33645	0.01496	0.973	no	1861	19	1865	38	1870	72	-0.5
FN035-4 40um	343985	91	0.09324	0.00113	3.26626	0.15880	0.25406	0.01196	0.968	no	1493	23	1473	37	1459	61	2.5
FN035-5 40um	188171	60	0.07295	0.00079	1.71196	0.07481	0.17021	0.00720	0.969	no	1013	22	1013	28	1013	40	-0.1
FN035-6 40um	226877	87	0.07116	0.00094	1.49820	0.07071	0.15270	0.00692	0.960	no	962	27	930	28	916	39	5.1
FN035-7 40um	74215	65	0.07745	0.00154	2.03648	0.09981	0.19071	0.00854	0.914	no	1133	39	1128	33	1125	46	0.7
FN035-8 40um	233867	53	0.08039	0.00086	2.30694	0.10987	0.20814	0.00966	0.975	no	1206	21	1214	33	1219	51	-1.1
FN035-9 40um	232167	58	0.09126	0.00103	3.15633	0.15617	0.25083	0.01209	0.974	no	1452	21	1447	37	1443	62	0.7
FN035-11 40um	139649	82	0.07651	0.00095	2.00838	0.10591	0.19039	0.00976	0.972	no	1108	24	1118	35	1123	53	-1.5
FN035-13 40um	129124	66	0.07751	0.00107	2.01567	0.09886	0.18862	0.00888	0.960	no	1134	27	1121	33	1114	48	2.0
FN035-15 40um	155559	73	0.08667	0.00094	2.64162	0.13683	0.22104	0.01120	0.978	no	1353	21	1312	37	1287	59	5.4
FN035-16 40um	55422	36	0.07706	0.00111	2.06972	0.09634	0.19480	0.00862	0.950	no	1123	29	1139	31	1147	46	-2.4
FN035-17 40um	176467	32	0.08129	0.00105	2.22856	0.10174	0.19882	0.00871	0.959	no	1229	25	1190	32	1169	47	5.3
FN035-18 40um	130758	36	0.07234	0.00092	1.64671	0.07526	0.16510	0.00725	0.961	no	995	26	988	28	985	40	1.1
FN035-19 40um	61486	46	0.07256	0.00107	1.68524	0.07626	0.16845	0.00721	0.945	no	1002	30	1003	28	1004	40	-0.2
FN035-20 40um	155484	35	0.10664	0.00112	4.34850	0.20141	0.29573	0.01334	0.974	no	1743	19	1703	38	1670	66	4.7
FN035-21 40um	432086	36	0.07344	0.00078	1.68145	0.08332	0.16606	0.00804	0.977	no	1026	21	1002	31	990	44	3.7
FN035-23 40um	93184	48	0.08400	0.00097	2.52108	0.11753	0.21766	0.00983	0.969	no	1293	22	1278	33	1270	52	2.0
FN035-26 40um	88989	45	0.07279	0.00080	1.81719	0.08505	0.18105	0.00824	0.972	no	1008	22	1052	30	1073	45	-6.9
FN035-27 40um	91305	33	0.08799	0.00100	2.99186	0.13338	0.24660	0.01063	0.967	no	1382	22	1406	33	1421	55	-3.1
FN035-28 40um	74566	46	0.07590	0.00090	2.01942	0.10022	0.19296	0.00930	0.971	no	1092	24	1122	33	1137	50	-4.5
FN035-29 40um	173851	70	0.07605	0.00080	2.02174	0.09043	0.19280	0.00838	0.972	no	1097	21	1123	30	1137	45	-4.0
FN035-31 40um	506726	73	0.16340	0.00166	10.77896	0.54462	0.47843	0.02368	0.980	no	2491	17	2504	46	2520	102	-1.4
FN035-32 40um	79462	85	0.07179	0.00125	1.68867	0.08333	0.17060	0.00788	0.936	no	980	35	1004	31	1015	43	-3.9
FN035-33 40um	165753	158	0.09366	0.00115	3.05709	0.15052	0.23672	0.01129	0.969	no	1501	23	1422	37	1370	59	9.7
FN035-35 40um	89287	74	0.10033	0.00114	3.88676	0.18746	0.28098	0.01317	0.972	no	1630	21	1611	38	1596	66	2.3
FN035-36 40um	188577	100	0.07540	0.00085	1.86695	0.08330	0.17959	0.00775	0.968	no	1079	22	1069	29	1065	42	1.4
FN035-37 40um	126471	46	0.09387	0.00111	3.30137	0.11428	0.25506	0.00830	0.940	no	1506	22	1481	27	1465	42	3.0
FN035-38 40um	104003	39	0.07429	0.00082	1.76145	0.06365	0.17197	0.00592	0.952	no	1049	22	1031	23	1023	32	2.7
FN035-39 40um	152359	38	0.07832	0.00090	2.05210	0.07697	0.19004	0.00678	0.952	no	1155	23	1133	25	1122	37	3.1
FN035-40 40um	338288	494	0.10819	0.00221	4.57393	0.23713	0.30663	0.01462	0.919	no	1769	37	1745	42	1724	72	2.9
FN035-41 40um	65051	37	0.08119	0.00118	2.23362	0.10223	0.19952	0.00866	0.949	no	1226	28	1192	32	1173	46	4.8
FN035-42 40um	210436	42	0.07366	0.00077	1.70946	0.09194	0.16833	0.00888	0.981	no	1032	21	1012	34	1003	49	3.1
FN035-43 40um	400420	49	0.07516	0.00080	1.82696	0.06548	0.17628	0.00604	0.955	no	1073	21	1055	23	1047	33	2.7
FN035-44 40um	63063	22	0.08540	0.00099	2.58206	0.10279	0.21929	0.00835	0.957	no	1325	22	1296	29	1278	44	3.9
FN035-45 40um	215574	30	0.09131	0.00098	3.14582	0.11370	0.24986	0.00862	0.955	no	1453	20	1444	27	1438	44	1.2
FN035-46 40um	50816	27	0.07763	0.00111	2.01344	0.07539	0.18811	0.00651	0.925	no	1137	28	1120	25	1111	35	2.5
FN035-47 40um	115931	25	0.07195	0.00078	1.56830	0.05645	0.15809	0.00543	0.954	no	985	22	958	22	946	30	4.2
FN035-48 40um	61682	49	0.07811	0.00157	1.91545	0.08586	0.17784	0.00713	0.894	no	1150	39	1086	29	1055	39	8.9
FN035-49 40um	44583	51	0.07217	0.00105	1.57539	0.06431	0.15832	0.00604	0.934	no	991	29	961	25	947	34	4.7
FN035-50 40um	447333	110	0.07811	0.00085	1.97443	0.08998	0.18332	0.00811	0.971	no	1150	21	1107	30	1085	44	6.1
FN035-52 40um	77402	69	0.08222	0.00102	2.19174	0.08322	0.19333	0.00694	0.946	no	1251	24	1178	26	1139	37	9.7
FN035-54 40um	24128	74	0.07854	0.00146	1.97406	0.07849	0.18230	0.00641	0.884	no	1160	36	1107	26	1080	35	7.6
FN035-55 40um	46239	60	0.07478	0.00139	1.66959	0.10224	0.16192	0.00945	0.953	no	1063	37	997	38	967	52	9.7
FN035-56 40um	288178	91	0.07567	0.00080	1.87847	0.08646	0.18004	0.00807	0.973	no	1086	21	1074	30	1067	44	1.9
FN035-57 40um	107335	85	0.07481	0.00085	1.80536	0.07080	0.17502	0.00657	0.958	no	1063	23	1047	25	1040	36	2.4
FN035-58 40um	80923	81	0.11590	0.00130	5.32747	0.22771	0.33339	0.01375	0.965	no	1894	20	1873	36	1855	66	2.4
FN035-61 40um	149846	88	0.07851	0.00090	2.06012	0.08251	0.19031	0.00730	0.958	no	1160	23	1136	27	1123	39	3.5
FN035-62 40um	180125	84	0.08664	0.00096	2.74096	0.10303	0.22944	0.00824	0.955	no	1353	21	1340	28	1332	43	1.7
FN035-63 40um	123809	102	0.10123	0.00110	3.87443	0.14061	0.27759	0.00962	0.954	no	1647	20	1608	29	1579	48	4.6
FN035-64 40um	279671	120	0.07797	0.00083	2.02613	0.06857	0.18847	0.00605	0.949	no	1146	21	1124	23	1113	33	3.1
FN035-65 40um	40692	106	0.05621	0.00098	0.61263	0.02460	0.07905	0.00286	0.902	no	461	38	485	15	490	17	-6.7
FN035-66 40um	60283	108	0.07593	0.00093	1.88396	0.06671	0.17995	0.00598	0.938	no	1093	24	1075	23	1067	33	2.6
FN035-67 40um	34420	102	0.08360	0.00103	2.56517	0.11433	0.22255	0.00953	0.961	no	1283	24	1291	32	1295	50	-1.0
FN035-69 40um	98442	135	0.10162	0.00129	3.99233	0.14499	0.28495	0.00970	0.937	no	1654	23	1633	29	1616	48	2.6
FN035-70 40um	64749	136	0.08169	0.00143	2.20877	0.12752	0.19609	0.01079	0.953	no	1238	34	1184	40	1154	58	7.4
FN035-73 40um	260192	75	0.09613	0.00101	3.30654	0.11985	0.24946	0.00865	0.957	no	1550	20	1483	28	1436	44	8.3
FN035-74 40um	166891	70	0.09402	0.00100	3.23824	0.11759	0.24980	0.00867	0.956	no	1508	20	1466	28	1437	45	5.3
FN035-75 40um	108504	112	0.09366	0.00149	3.13606	0.12740	0.24283	0.00908	0.920	no	1501	30	1442	31	1401	47	7.4

FN035 British Grid SD 3285 9852

sample name	Isotopic ratios				Apparent age summary												
	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
FN035-76 40um	606549	99	0.07919	0.00081	2.05898	0.07337	0.18858	0.00644	0.958	no	1177	20	1135	24	1114	35	5.8
FN035-77 40um	166908	97	0.08179	0.00092	2.28243	0.09421	0.20239	0.00804	0.962	no	1241	22	1207	29	1188	43	4.6
FN035-78 40um	111698	79	0.08487	0.00089	2.59828	0.09094	0.22204	0.00741	0.954	no	1313	20	1300	25	1293	39	1.7
FN035-79 40um	36628	106	0.07176	0.00097	1.54115	0.06942	0.15575	0.00669	0.954	no	979	27	947	27	933	37	5.1
FN035-81 40um	51770	125	0.07713	0.00119	1.83073	0.07036	0.17215	0.00606	0.916	no	1125	30	1057	25	1024	33	9.7
FN035-82 40um	170093	116	0.10179	0.00106	3.97672	0.14404	0.28335	0.00983	0.958	no	1657	19	1629	29	1608	49	3.3
FN035-83 40um	44189	109	0.07440	0.00086	1.73205	0.06059	0.16884	0.00558	0.944	no	1052	23	1021	22	1006	31	4.8
FN035-84 40um	256496	135	0.08722	0.00092	2.74141	0.11212	0.22795	0.00901	0.966	no	1365	20	1340	30	1324	47	3.4
FN035-85 40um	563942	114	0.07349	0.00076	1.80173	0.07060	0.17780	0.00672	0.965	no	1028	21	1046	25	1055	37	-2.9
FN035-86 40um	61142	93	0.07459	0.00090	1.91791	0.08296	0.18648	0.00775	0.961	no	1058	24	1087	28	1102	42	-4.6
FN035-87 40um	228742	136	0.09626	0.00221	3.49523	0.14470	0.26334	0.00907	0.832	no	1553	43	1526	32	1507	46	3.3
FN035-88 40um	144528	87	0.10281	0.00111	4.22718	0.16294	0.29819	0.01103	0.960	no	1676	20	1679	31	1682	55	-0.5
FN035-90 40um	200765	90	0.07878	0.00084	2.19408	0.08054	0.20198	0.00709	0.956	no	1167	21	1179	25	1186	38	-1.8
FN035-91 40um	36734	91	0.07203	0.00136	1.68198	0.07030	0.16936	0.00631	0.892	no	987	38	1002	26	1009	35	-2.4
FN035-92 40um	144411	88	0.05625	0.00064	0.56406	0.02106	0.07273	0.00259	0.952	no	462	25	454	14	453	16	2.1
FN035-93 40um	300083	89	0.09146	0.00095	3.19178	0.11822	0.25309	0.00900	0.960	no	1456	20	1455	28	1454	46	0.1
FN035-94 40um	120547	84	0.07892	0.00104	2.16582	0.08978	0.19903	0.00782	0.948	no	1170	26	1170	28	1170	42	0.0
FN035-95 40um	103012	99	0.07714	0.00107	1.93080	0.06916	0.18153	0.00600	0.922	no	1125	27	1092	24	1075	33	4.8
FN035-96 40um	799805	80	0.10151	0.00105	4.12315	0.15477	0.29460	0.01063	0.961	no	1652	19	1659	30	1664	53	-0.9
FN035-97 40um	156235	66	0.10021	0.00109	4.16054	0.15256	0.30112	0.01054	0.955	no	1628	20	1666	30	1697	52	-4.8
FN035-98 40um	132031	71	0.07590	0.00118	1.95989	0.07361	0.18729	0.00641	0.911	no	1092	31	1102	25	1107	35	-1.4
FN035-99 40um	70381	309	0.07584	0.00140	1.82609	0.08662	0.17464	0.00763	0.921	no	1091	37	1055	31	1038	42	5.3
FN035-100 40um	75609	66	0.08042	0.00096	2.41388	0.09154	0.21770	0.00784	0.949	no	1207	23	1247	27	1270	41	-5.7
FN035-101 40um	128736	60	0.07354	0.00082	1.70931	0.06134	0.16857	0.00575	0.950	no	1029	22	1012	23	1004	32	2.6
FN035-103 40um	134188	73	0.07405	0.00087	1.72844	0.06378	0.16929	0.00592	0.948	no	1043	24	1019	23	1008	33	3.6
FN035-104 40um	363582	91	0.08508	0.00089	2.70457	0.09832	0.23054	0.00803	0.958	no	1317	20	1330	27	1337	42	-1.7
FN035-105 40um	235298	94	0.07476	0.00078	1.93247	0.06678	0.18747	0.00617	0.953	no	1062	21	1092	23	1108	33	-4.7
FN035-106 40um	129113	81	0.12227	0.00134	6.22905	0.23476	0.36950	0.01332	0.957	no	1990	19	2009	32	2027	62	-2.2
FN035-107 40um	22214	88	0.09725	0.00166	3.51153	0.13102	0.26188	0.00869	0.890	no	1572	32	1530	29	1499	44	5.2
FN035-108 40um	88877	113	0.07509	0.00089	1.85218	0.07496	0.17890	0.00692	0.956	no	1071	24	1064	26	1061	38	1.0
FN035-109 40um	80453	49	0.08740	0.00091	2.82987	0.15858	0.23482	0.01293	0.983	no	1369	20	1363	41	1360	67	0.8
FN035-110 40um	26344	62	0.07747	0.00101	1.92661	0.10707	0.18038	0.00974	0.972	no	1133	26	1090	36	1069	53	6.1
FN035-111 40um	67784	78	0.07748	0.00132	1.85662	0.10731	0.17379	0.00959	0.955	no	1134	34	1066	37	1033	52	9.6
FN035-112 40um	339092	61	0.10052	0.00103	3.81651	0.23271	0.27537	0.01655	0.986	no	1634	19	1596	48	1568	83	4.5
FN035-113 40um	192891	83	0.07822	0.00095	2.00929	0.11352	0.18629	0.01028	0.977	no	1153	24	1119	38	1101	56	4.8
FN035-114 40um	261620	75	0.07524	0.00078	1.79940	0.10323	0.17344	0.00979	0.983	no	1075	21	1045	37	1031	54	4.4
FN035-115 40um	139453	94	0.07519	0.00079	1.78348	0.09930	0.17203	0.00941	0.982	no	1074	21	1039	36	1023	52	5.1
FN035-116 40um	202313	125	0.11342	0.00151	5.13535	0.30021	0.32837	0.01869	0.974	no	1855	24	1842	49	1830	90	1.5
FN035-117 40um	57011	95	0.07386	0.00087	1.74659	0.09756	0.17151	0.00937	0.978	no	1038	23	1026	35	1020	51	1.8
FN035-118 40um	300588	121	0.07909	0.00085	2.16085	0.12515	0.19815	0.01128	0.983	no	1174	21	1169	39	1165	60	0.8
FN035-119 40um	159212	110	0.07308	0.00082	1.69083	0.09454	0.16781	0.00919	0.980	no	1016	23	1005	35	1000	51	1.7
FN035-121 40um	105481	130	0.06980	0.00079	1.51988	0.08883	0.15793	0.00905	0.981	no	922	23	938	35	945	50	-2.7
FN035-122 40um	130350	141	0.07766	0.00088	2.04406	0.11821	0.19089	0.01082	0.980	no	1138	23	1130	39	1126	58	1.1
FN035-123 40um	82237	135	0.07189	0.00102	1.55209	0.08728	0.15659	0.00852	0.968	no	983	29	951	34	938	47	4.9
FN035-124 40um	149897	141	0.07326	0.00078	1.70122	0.10492	0.16842	0.01023	0.985	no	1021	21	1009	39	1003	56	1.9
FN035-125 40um	133744	156	0.09425	0.00100	3.46013	0.20673	0.26626	0.01566	0.984	no	1513	20	1518	46	1522	79	-0.6
FN035-126 40um	365292	148	0.07376	0.00075	1.81813	0.10168	0.17877	0.00983	0.983	no	1035	21	1052	36	1060	54	-2.6
FN035-127 40um	151360	155	0.07036	0.00075	1.56758	0.08745	0.16159	0.00885	0.982	no	939	22	957	34	966	49	-3.1
FN035-129 40um	23156	166	0.07223	0.00105	1.68330	0.09956	0.16902	0.00969	0.969	no	992	29	1002	37	1007	53	-1.6
FN035-130 40um	145624	178	0.05722	0.00066	0.59896	0.03503	0.07592	0.00435	0.980	no	500	25	477	22	472	26	5.9
FN035-131 40um	97746	186	0.07524	0.00081	1.85167	0.10350	0.17849	0.00979	0.981	no	1075	21	1064	36	1059	53	1.6
FN035-132 40um	142954	187	0.07808	0.00090	2.12154	0.13430	0.19707	0.01227	0.983	no	1149	23	1156	43	1160	66	-1.0
FN035-133 40um	142141	215	0.07238	0.00090	1.65549	0.10324	0.16587	0.01014	0.980	no	997	25	992	39	989	56	0.8
FN035-134 40um	433332	195	0.08698	0.00091	2.79374	0.16213	0.23295	0.01330	0.984	no	1360	20	1354	42	1350	69	0.8
FN035-135 40um	168387	219	0.07746	0.00097	2.03700	0.12021	0.19072	0.01100	0.977	no	1133	25	1128	39	1125	59	0.8
FN035-136 40um	40578	192	0.07483	0.00096	1.81420	0.10387	0.17583	0.00981	0.975	no	1064	26	1051	37	1044	54	2.0
FN035-137 40um	113180	238	0.07817	0.00086	2.02781	0.11413	0.18815	0.01038	0.980	no	1151	22	1125	38	1111	56	3.8
FN035-139 40um	133384	231	0.08552	0.00110	2.49563	0.14999	0.21166	0.01243	0.977	no	1327	25	1271	43	1238	66	7.4
FN035-140 40um	121582	237	0.07953	0.00093	2.15089	0.12332	0.19615	0.01101	0.979	no	1185	23	1165	39	1155	59	2.8
FN035-141 40um	243694	208	0.08175	0.00085	2.29150	0.13604	0.20330	0.01188	0.985	no	1239	20	1210	41	1193	63	4.1
FN035-142 40um	44401	205	0.07413	0.00093	1.70808	0.10089	0.16710	0.00965	0.977	no	1045	25	1012	37	996	53	5.1

FN035 British Grid SD 3285 9852

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
FN035-143 40um	44096	217	0.07138	0.00110	1.50395	0.08682	0.15280	0.00850	0.963	no	968	31	932	35	917	47	5.7
FN035-144 40um	174220	219	0.09646	0.00101	3.40393	0.19846	0.25592	0.01468	0.984	no	1557	20	1505	45	1469	75	6.3
FN035-145 40um	200618	220	0.08732	0.00091	2.88986	0.16251	0.24002	0.01326	0.983	no	1368	20	1379	42	1387	69	-1.6
FN035-146 40um	213087	232	0.05759	0.00067	0.63547	0.03534	0.08003	0.00435	0.978	no	514	26	499	22	496	26	3.6
FN035-147 40um	231007	222	0.07369	0.00079	1.79832	0.10562	0.17699	0.01022	0.983	no	1033	22	1045	38	1050	56	-1.8
FN035-149 40um	148320	186	0.08043	0.00088	2.25860	0.12833	0.20366	0.01135	0.981	no	1208	21	1199	39	1195	61	1.2
FN035-150 40um	108808	155	0.07981	0.00090	2.23805	0.13058	0.20337	0.01165	0.981	no	1192	22	1193	40	1193	62	-0.1
FN035-151 40um	45593	147	0.07500	0.00095	1.91741	0.10950	0.18542	0.01032	0.975	no	1068	25	1087	37	1097	56	-2.9
FN035-152 40um	165632	152	0.07472	0.00080	1.99074	0.11677	0.19324	0.01114	0.983	no	1061	21	1112	39	1139	60	-8.0
FN035-153 40um	239001	178	0.07838	0.00092	2.10077	0.11894	0.19439	0.01077	0.978	no	1157	23	1149	38	1145	58	1.1
FN035-154 40um	177828	145	0.07325	0.00079	1.61830	0.09514	0.16024	0.00926	0.983	no	1021	22	977	36	958	51	6.6
FN035-155 40um	120854	148	0.07587	0.00090	1.85582	0.10665	0.17740	0.00997	0.978	no	1092	24	1066	37	1053	54	3.9
FN035-156 40um	227931	162	0.07576	0.00079	1.90785	0.11206	0.18265	0.01056	0.984	no	1089	21	1084	38	1081	57	0.7
FN035-157 40um	150624	170	0.10215	0.00119	4.03527	0.22735	0.28649	0.01579	0.978	no	1664	21	1641	45	1624	79	2.7
Discordance >10% or <-10%																	
FN035-10 40um	44927	81	0.07895	0.00153	1.73433	0.13490	0.15933	0.01200	0.968	no	1171	38	1021	49	953	66	20.0
FN035-12 40um	25561	79	0.06298	0.00147	1.37504	0.07684	0.15835	0.00804	0.909	no	708	49	878	32	948	45	-36.5
FN035-14 40um	16151	49	0.06078	0.00166	1.33727	0.07314	0.15957	0.00756	0.867	no	632	58	862	31	954	42	-55.0
FN035-22 40um	52216	49	0.06872	0.00142	1.55938	0.07806	0.16457	0.00751	0.911	no	890	42	954	31	982	41	-11.1
FN035-24 40um	19608	45	0.06508	0.00247	1.51436	0.09738	0.16878	0.00876	0.807	no	777	78	936	39	1005	48	-31.8
FN035-25 40um	19895	48	0.06474	0.00189	1.58691	0.08543	0.17778	0.00805	0.841	no	766	60	965	33	1055	44	-40.9
FN035-30 40um	66685	67	0.07431	0.00134	2.15413	0.11148	0.21025	0.01020	0.937	no	1050	36	1166	35	1230	54	-18.9
FN035-34 40um	10385	98	0.09033	0.00364	1.74343	0.10934	0.13998	0.00672	0.766	no	1432	75	1025	40	845	38	43.7
FN035-51 40um	33782	110	0.09507	0.00403	2.17464	0.15845	0.16590	0.00984	0.814	no	1529	78	1173	49	989	54	38.0
FN035-53 40um	54664	87	0.07660	0.00182	1.61559	0.07095	0.15298	0.00564	0.840	no	1111	47	976	27	918	31	18.6
FN035-59 40um	117883	132	0.07789	0.00234	1.85594	0.08911	0.17281	0.00647	0.780	no	1144	59	1066	31	1028	35	11.0
FN035-60 40um	171261	134	0.09504	0.00139	3.04255	0.13060	0.23218	0.00937	0.940	no	1529	27	1418	32	1346	49	13.3
FN035-68 40um	79486	123	0.06067	0.00110	0.75444	0.03711	0.09019	0.00413	0.930	no	627	38	571	21	557	24	11.8
FN035-71 40um	82481	132	0.05830	0.00080	0.60841	0.02422	0.07569	0.00283	0.939	no	541	30	483	15	470	17	13.5
FN035-72 40um	18608	137	0.08321	0.00219	1.90146	0.08841	0.16573	0.00635	0.824	no	1274	51	1082	30	989	35	24.2
FN035-80 40um	108704	123	0.05899	0.00076	0.60126	0.02185	0.07392	0.00251	0.936	no	567	28	478	14	460	15	19.5
FN035-89 40um	68239	105	0.07827	0.00251	1.90290	0.09078	0.17632	0.00623	0.741	no	1154	62	1082	31	1047	34	10.0
FN035-102 40um	20045	75	0.05512	0.00165	0.57478	0.02688	0.07563	0.00272	0.769	no	417	65	461	17	470	16	-13.2
FN035-120 40um	18759	118	0.07460	0.00142	1.59521	0.09344	0.15508	0.00859	0.945	no	1058	38	968	36	929	48	13.0
FN035-128 40um	83662	179	0.05835	0.00071	0.57751	0.03454	0.07178	0.00420	0.979	no	543	26	463	22	447	25	18.3
FN035-138 40um	20175	255	0.10533	0.00694	2.32217	0.19908	0.15990	0.00877	0.640	no	1720	116	1219	59	956	49	47.7
FN035-148 40um	51469	337	0.12269	0.00377	4.05547	0.25463	0.23973	0.01313	0.872	no	1996	54	1645	50	1385	68	33.9

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15-1 40um	*	0.113657	0.000230	0.324984	0.002104
LH94-15-1 40um - 2		0.113084	0.000118	0.318884	0.002992
LH94-15-2 40um		0.113281	0.000137	0.317036	0.002888
LH94-15-3 40um		0.113661	0.000101	0.316701	0.002384
LH94-15-4 40um		0.113251	0.000108	0.316713	0.002047
LH94-15-5 40um		0.113254	0.000131	0.315772	0.002184
LH94-15-6 40um		0.113451	0.000095	0.318352	0.001888
LH94-15-7 40um		0.113028	0.000131	0.304165	0.001971
LH94-15-8 40um		0.112809	0.000129	0.303897	0.002132
LH94-15-9 40um	*	0.113196	0.000110	0.324203	0.002635
LH94-15-10 40um	*	0.113822	0.000144	0.332379	0.003872
LH94-15-11 40um		0.113846	0.000124	0.302260	0.000912
LH94-15-12 40um		0.113844	0.000128	0.302885	0.001555
LH94-15-13 40um		0.114211	0.000246	0.308151	0.001736
LH94-15-14 40um		0.114224	0.000155	0.306970	0.002028
LH94-15-15 40um		0.114368	0.000193	0.308645	0.002515
LH94-15-16 40um		0.113966	0.000158	0.308760	0.002028
LH94-15-17 40um		0.114506	0.000160	0.304356	0.001509
LH94-15-18 40um		0.113778	0.000111	0.306973	0.001550
LH94-15-19 40um		0.113853	0.000110	0.300255	0.001554

LS002A British Grid NT 19389 22724											Apparent age summary						
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
LS002A -1 40um	163899	64	0.07496	0.00086	1.79765	0.06358	0.17394	0.00582	0.946	no	1067	23	1045	23	1034	32	3.4
LS002A -2 40um	110330	75	0.07408	0.00096	1.63174	0.05702	0.15976	0.00519	0.929	no	1044	26	983	22	955	29	9.1
LS002A -3 40um	466848	116	0.10139	0.00103	3.81188	0.13982	0.27268	0.00961	0.960	no	1650	19	1595	29	1554	48	6.5
LS002A -4 40um	365315	104	0.07889	0.00081	2.06227	0.07226	0.18958	0.00635	0.956	no	1169	20	1136	24	1119	34	4.7
LS002A -5 40um	64009	97	0.07751	0.00095	1.98347	0.06969	0.18560	0.00611	0.937	no	1134	24	1110	23	1097	33	3.5
LS002A -6 40um	1129835	151	0.07738	0.00080	2.01541	0.06696	0.18890	0.00596	0.950	no	1131	21	1121	22	1115	32	1.5
LS002A -8 40um	162672	124	0.07419	0.00081	1.72104	0.06187	0.16824	0.00576	0.953	no	1047	22	1016	23	1002	32	4.6
LS002A -9 40um	218781	107	0.07390	0.00080	1.72460	0.06107	0.16926	0.00571	0.952	no	1039	22	1018	23	1008	31	3.2
LS002A -10 40um	1076113	124	0.07667	0.00078	2.01911	0.07147	0.19101	0.00648	0.958	no	1113	20	1122	24	1127	35	-1.4
LS002A -12 40um	1123785	150	0.07700	0.00078	2.05241	0.07095	0.19331	0.00639	0.956	no	1121	20	1133	23	1139	34	-1.8
LS002A -13 40um	298311	162	0.07071	0.00076	1.45458	0.05010	0.14920	0.00488	0.951	no	949	22	912	21	896	27	5.9
LS002A -15 40um	620865	85	0.07700	0.00079	1.98373	0.06904	0.18684	0.00621	0.955	no	1121	20	1110	23	1104	34	1.7
LS002A -16 40um	152423	86	0.07277	0.00082	1.67703	0.06107	0.16713	0.00579	0.951	no	1008	23	1000	23	996	32	1.2
LS002A -17 40um	20322	102	0.07142	0.00282	1.68523	0.08775	0.17114	0.00580	0.651	no	969	79	1003	33	1018	32	-5.5
LS002A -18 40um	327657	105	0.10969	0.00116	4.54105	0.16120	0.30026	0.01018	0.955	no	1794	19	1739	29	1693	50	6.4
LS002A -19 40um	226851	91	0.07388	0.00076	1.69236	0.06332	0.16614	0.00597	0.961	no	1038	21	1006	24	991	33	4.9
LS002A -20 40um	249080	128	0.08340	0.00088	2.45379	0.08795	0.21339	0.00731	0.956	no	1279	20	1259	26	1247	39	2.7
LS002A -21 40um	1212661	232	0.10872	0.00113	4.51894	0.18207	0.30146	0.01173	0.966	no	1778	19	1734	33	1699	58	5.1
LS002A -22 40um	344363	152	0.08656	0.00089	2.77230	0.09673	0.23229	0.00774	0.955	no	1351	20	1348	26	1346	40	0.3
LS002A -23 40um	97102	168	0.05541	0.00063	0.56757	0.02067	0.07429	0.00257	0.951	no	429	25	456	13	462	15	-8.0
LS002A -24 40um	373247	160	0.07378	0.00076	1.74642	0.05933	0.17167	0.00556	0.953	no	1036	21	1026	22	1021	31	1.5
LS002A -28 40um	44422	52	0.07345	0.00179	1.58168	0.07072	0.15618	0.00585	0.838	no	1026	49	963	27	936	33	9.5
LS002A -31 40um	125737	44	0.07308	0.00087	1.56279	0.05989	0.15509	0.00565	0.951	no	1016	24	956	23	929	31	9.2
LS002A -32 40um	439219	41	0.07409	0.00080	1.67735	0.05970	0.16419	0.00557	0.953	no	1044	22	1000	22	980	31	6.6
LS002A -33 40um	639153	44	0.10250	0.00109	3.98032	0.13759	0.28165	0.00927	0.952	no	1670	20	1630	28	1600	46	4.7
LS002A -34 40um	185875	43	0.07855	0.00084	1.99574	0.06898	0.18428	0.00606	0.951	no	1161	21	1114	23	1090	33	6.6
LS002A -35 40um	158255	68	0.08386	0.00089	2.42640	0.08876	0.20986	0.00734	0.957	no	1289	21	1250	26	1228	39	5.2
LS002A -36 40um	68945	87	0.07194	0.00094	1.56214	0.05534	0.15749	0.00518	0.929	no	984	26	955	22	943	29	4.5
LS002A -37 40um	215299	107	0.07554	0.00086	1.84238	0.07272	0.17689	0.00668	0.957	no	1083	23	1061	26	1050	37	3.3
LS002A -38 40um	33751	108	0.06994	0.00145	1.47984	0.06104	0.15346	0.00547	0.865	no	926	42	922	25	920	31	0.7
LS002A -39 40um	119596	114	0.05600	0.00065	0.51822	0.01882	0.06711	0.00231	0.948	no	452	25	424	13	419	14	7.7
LS002A -40 40um	233082	96	0.09909	0.00108	3.94981	0.13241	0.28910	0.00917	0.946	no	1607	20	1624	27	1637	46	-2.1
LS002A -41 40um	228085	119	0.07399	0.00082	1.78259	0.06086	0.17473	0.00564	0.946	no	1041	22	1039	22	1038	31	0.3
LS002A -43 40um	380271	139	0.09405	0.00098	3.19912	0.12513	0.24670	0.00930	0.964	no	1509	19	1457	30	1421	48	6.5
LS002A -45 40um	964985	339	0.07033	0.00110	1.54341	0.05475	0.15916	0.00507	0.898	yes	938	32	948	22	952	28	-1.6
LS002A -46 40um	447102	225	0.09101	0.00101	2.93409	0.12368	0.23381	0.00951	0.965	no	1447	21	1391	31	1354	49	7.1
LS002A -48 40um	462630	88	0.07456	0.00079	1.68611	0.06064	0.16402	0.00564	0.955	no	1057	21	1003	23	979	31	7.9
LS002A -50 40um	454391	60	0.07409	0.00077	1.69177	0.06288	0.16560	0.00591	0.960	no	1044	21	1005	23	988	33	5.8
LS002A -51 40um	248948	94	0.07995	0.00089	2.06120	0.07555	0.18698	0.00653	0.953	no	1196	22	1136	25	1105	35	8.3
LS002A -52 40um	326645	96	0.09742	0.00129	3.41198	0.18412	0.25401	0.01329	0.970	no	1575	25	1507	42	1459	68	8.2
LS002A -53 40um	137423	219	0.07677	0.00102	1.84936	0.07151	0.17472	0.00635	0.939	no	1115	26	1063	25	1038	35	7.5
LS002A -54 40um	1170847	213	0.07987	0.00082	2.18181	0.07873	0.19811	0.00685	0.959	no	1194	20	1175	25	1165	37	2.6
LS002A -55 40um	459300	239	0.10888	0.00119	4.51154	0.16150	0.30052	0.01025	0.952	no	1781	20	1733	29	1694	51	5.5
LS002A -56 40um	93236	167	0.07892	0.00085	2.08109	0.08098	0.19126	0.00715	0.961	no	1170	21	1143	26	1128	39	3.9
LS002A -57 40um	1229120	258	0.08289	0.00093	2.31387	0.10893	0.20247	0.00926	0.971	no	1267	22	1217	33	1189	49	6.7
LS002A -58 40um	632599	163	0.07402	0.00078	1.69350	0.05924	0.16593	0.00554	0.954	no	1042	21	1006	22	990	31	5.4
LS002A -59 40um	237238	156	0.09531	0.00099	3.30117	0.12144	0.25119	0.00887	0.960	no	1534	19	1481	28	1445	46	6.5
LS002A -61 40um	81115	196	0.07538	0.00104	1.77122	0.06620	0.17042	0.00592	0.930	no	1079	27	1035	24	1014	33	6.4
LS002A -62 40um	300487	218	0.08518	0.00111	2.46775	0.10265	0.21013	0.00830	0.949	no	1320	25	1263	30	1230	44	7.5
LS002A -63 40um	430433	332	0.08951	0.00131	2.72725	0.15659	0.22097	0.01227	0.967	no	1415	28	1336	42	1287	64	10.0
LS002A -64 40um	1056095	249	0.07378	0.00075	1.73965	0.06181	0.17100	0.00582	0.958	no	1036	21	1023	23	1018	32	1.9
LS002A -65 40um	81345	231	0.05649	0.00070	0.57281	0.02243	0.07354	0.00273	0.948	no	472	27	460	14	457	16	3.2
LS002A -66 40um	475926	200	0.07463	0.00081	1.75017	0.06658	0.17009	0.00620	0.959	no	1059	22	1027	24	1013	34	4.7
LS002A -67 40um	270605	222	0.09547	0.00101	3.29409	0.11468	0.25023	0.00830	0.953	no	1537	20	1480	27	1440	43	7.1
LS002A -68 40um	352074	220	0.07515	0.00080	1.70191	0.06429	0.16424	0.00595	0.959	no	1073	21	1009	24	980	33	9.3
LS002A -70 40um	49604	205	0.05594	0.00143	0.58845	0.02572	0.07630	0.00270	0.811	no	450	56	470	16	474	16	-5.5
LS002A -71 40um	1110066	279	0.10343	0.00107	4.09316	0.14787	0.28702	0.00994	0.958	no	1687	19	1653	29	1627	50	4.0
LS002A -75 40um	360370	252	0.07652	0.00081	1.80384	0.06606	0.17097	0.00600	0.958	no	1109	21	1047	24	1017	33	8.9
LS002A -76 40um	231335	220	0.07668	0.00088	1.81906	0.06714	0.17205	0.00604	0.951	no	1113	23	1052	24	1023	33	8.7
LS002A -77 40um	129925	231	0.08393	0.00097	2.41495	0.08900	0.20868	0.00731	0.950	no	1291	22	1247	26	1222	39	5.9

Isotopic ratios

Apparent age summary

sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma)	error (Ma)	age (Ma)	error (Ma)	age (Ma)	error (Ma)	discordance %
											²⁰⁷ Pb*/ ²⁰⁶ Pb*	2 σ	²⁰⁷ Pb*/ ²³⁵ U	2 σ	²⁰⁶ Pb*/ ²³⁸ U	2 σ	
LS002A -78 40um	1161569	230	0.09348	0.00095	3.35856	0.11340	0.26058	0.00839	0.954	no	1498	19	1495	26	1493	43	0.4
LS002A -79 40um	310175	208	0.07433	0.00083	1.77334	0.06756	0.17304	0.00630	0.956	no	1050	22	1036	24	1029	35	2.2
LS002A -80 40um	847400	145	0.07763	0.00080	2.04247	0.07336	0.19082	0.00656	0.958	no	1137	20	1130	24	1126	35	1.1
LS002A -81 40um	207211	162	0.07294	0.00081	1.63889	0.05928	0.16295	0.00561	0.952	no	1012	22	985	23	973	31	4.2
LS002A -82 40um	365943	143	0.07817	0.00081	2.02622	0.07038	0.18798	0.00623	0.955	no	1151	20	1124	23	1110	34	3.9
LS002A -83 40um	869520	131	0.07388	0.00076	1.73132	0.06163	0.16996	0.00579	0.957	no	1038	21	1020	23	1012	32	2.7
LS002A -84 40um	138771	141	0.10304	0.00114	3.98048	0.14138	0.28019	0.00946	0.950	no	1680	20	1630	28	1592	47	5.9
LS002A -85 40 um	179925	190	0.07832	0.00089	1.99999	0.07260	0.18521	0.00639	0.950	no	1155	22	1116	24	1095	35	5.6
LS002A -86 40 um	904766	175	0.10963	0.00111	4.55806	0.16266	0.30154	0.01032	0.959	no	1793	18	1742	29	1699	51	6.0
LS002A -87 40 um	328332	178	0.07827	0.00083	2.08002	0.07262	0.19274	0.00641	0.953	no	1154	21	1142	24	1136	35	1.7
LS002A -88 40 um	737698	264	0.09546	0.00096	3.37932	0.12154	0.25676	0.00886	0.960	no	1537	19	1500	28	1473	45	4.6
LS002A -89 40 um	986888	192	0.07468	0.00076	1.82110	0.06511	0.17685	0.00606	0.958	no	1060	20	1053	23	1050	33	1.1
LS002A -90 40 um	1244430	168	0.07526	0.00077	1.92460	0.06725	0.18548	0.00620	0.956	no	1075	20	1090	23	1097	34	-2.2
LS002A -91 40 um	1383896	153	0.09311	0.00094	3.41415	0.11653	0.26593	0.00867	0.956	no	1490	19	1508	26	1520	44	-2.3
LS002A -92 40 um	359395	187	0.10828	0.00113	4.58055	0.16946	0.30680	0.01089	0.960	no	1771	19	1746	30	1725	54	2.9
LS002A -93 40 um	3305202	216	0.07243	0.00073	1.74291	0.05883	0.17453	0.00562	0.954	no	998	20	1025	22	1037	31	-4.2
LS002A -94 40 um	1566500	202	0.07219	0.00075	1.64345	0.06022	0.16512	0.00580	0.959	no	991	21	987	23	985	32	0.7
LS002A -95 40 um	360237	193	0.07432	0.00078	1.73784	0.06244	0.16960	0.00583	0.957	no	1050	21	1023	23	1010	32	4.1
LS002A -96 40 um	356416	163	0.07656	0.00082	1.84494	0.06381	0.17477	0.00575	0.951	no	1110	21	1062	23	1038	31	7.0
LS002A -97 -40um	809299	41	0.07513	0.00078	1.85296	0.06907	0.17888	0.00640	0.960	no	1072	21	1064	24	1061	35	1.1
LS002A -98 -40um	880795	29	0.10945	0.00112	4.80810	0.17181	0.31861	0.01091	0.958	no	1790	18	1786	30	1783	53	0.5
LS002A -99 -40um	490623	63	0.07454	0.00087	1.80516	0.06086	0.17563	0.00556	0.939	no	1056	23	1047	22	1043	30	1.3
LS002A -100 -40um	266614	21	0.07075	0.00076	1.48203	0.05364	0.15193	0.00525	0.954	no	950	22	923	22	912	29	4.3
LS002A -102 -40um	431188	18	0.07428	0.00077	1.81324	0.06472	0.17705	0.00604	0.956	no	1049	21	1050	23	1051	33	-0.2
LS002A -103 -40um	634654	7	0.11391	0.00116	5.28388	0.19299	0.33642	0.01180	0.960	no	1863	18	1866	31	1869	57	-0.4
LS002A -104 -40um	1581324	18	0.11525	0.00117	5.51350	0.19139	0.34696	0.01152	0.957	no	1884	18	1903	29	1920	55	-2.2
LS002A -105 -40um	248009	6	0.07452	0.00079	1.75914	0.06370	0.17120	0.00593	0.957	no	1056	21	1031	23	1019	33	3.8
LS002A -106 -40um	1453056	13	0.07163	0.00073	1.66150	0.05730	0.16822	0.00554	0.955	no	976	21	994	22	1002	31	-3.0
LS002A -107 -40um	180827	13	0.07450	0.00083	1.80164	0.06623	0.17539	0.00614	0.953	no	1055	22	1046	24	1042	34	1.4
LS002A -108 -40um	553157	21	0.10129	0.00104	4.00799	0.14526	0.28699	0.00997	0.959	no	1648	19	1636	29	1626	50	1.5
LS002A -109 -40um	374522	4	0.07613	0.00084	1.84899	0.06520	0.17615	0.00590	0.950	no	1098	22	1063	23	1046	32	5.2
LS002A -121 -40um	1942121	119	0.07676	0.00078	2.09933	0.07219	0.19836	0.00652	0.956	no	1115	20	1149	23	1167	35	-5.1
LS002A -123 -40um	3631555	30	0.10365	0.00104	4.51820	0.15494	0.31616	0.01037	0.956	no	1690	18	1734	28	1771	51	-5.5
LS002A -124 -40um	418848	8	0.07365	0.00077	1.74876	0.06451	0.17222	0.00609	0.958	no	1032	21	1027	24	1024	33	0.8
LS002A -125 -40um	1261221	20	0.09305	0.00094	3.32303	0.10925	0.25902	0.00810	0.951	no	1489	19	1486	25	1485	41	0.3
LS002A -126 -40um	400668	24	0.09012	0.00095	2.91689	0.10504	0.23474	0.00808	0.956	no	1428	20	1386	27	1359	42	5.3
LS002A -127 -40um	722331	39	0.07503	0.00077	1.86223	0.06218	0.18002	0.00572	0.952	no	1069	20	1068	22	1067	31	0.2
LS002A -128 -40um	387151	42	0.07427	0.00079	1.74264	0.06357	0.17017	0.00594	0.956	no	1049	21	1024	23	1013	33	3.7
LS002A -129 -40um	707070	61	0.10491	0.00107	4.41906	0.19044	0.30549	0.01279	0.971	no	1713	19	1716	35	1718	63	-0.4
LS002A -130 -40um	211868	126	0.07292	0.00077	1.58595	0.05290	0.15773	0.00499	0.949	no	1012	21	965	21	944	28	7.2
LS002A -111 -40um	224080	0	0.07608	0.00082	1.84161	0.06713	0.17557	0.00611	0.955	no	1097	21	1060	24	1043	33	5.4
LS002A -112 -40um	1674042	2	0.07020	0.00071	1.55281	0.05332	0.16042	0.00526	0.955	no	934	21	952	21	959	29	-2.9
LS002A -113 -40um	702539	10	0.07335	0.00077	1.87231	0.08148	0.18514	0.00782	0.971	no	1024	21	1071	28	1095	42	-7.6
LS002A -114 -40um	562930	8	0.07949	0.00082	2.16275	0.07808	0.19734	0.00683	0.958	no	1184	20	1169	25	1161	37	2.1
LS002A -115 -40um	1303560	14	0.07673	0.00078	2.04243	0.07104	0.19306	0.00642	0.956	no	1114	20	1130	23	1138	35	-2.3
LS002A -116 -40um	828754	18	0.18797	0.00190	13.51987	0.48049	0.52165	0.01777	0.959	no	2724	17	2717	33	2706	75	0.8
LS002A -117 -40um	1094652	13	0.07261	0.00074	1.67548	0.05703	0.16736	0.00544	0.955	no	1003	20	999	21	998	30	0.6
LS002A -118 -40um	1061099	16	0.09382	0.00096	3.40743	0.12141	0.26341	0.00899	0.958	no	1505	19	1506	28	1507	46	-0.2
LS002A -119 -40um	1352840	8	0.11202	0.00113	4.90873	0.16990	0.31782	0.01052	0.957	no	1832	18	1804	29	1779	51	3.3
LS002A -120 -40um	1657106	5	0.07667	0.00078	2.06993	0.07076	0.19580	0.00639	0.955	no	1113	20	1139	23	1153	34	-3.9
LS002A -131 -40um	2725208	170	0.07567	0.00087	1.75561	0.06801	0.16827	0.00622	0.955	no	1086	23	1029	25	1003	34	8.3
LS002A -132 -40um	235539	152	0.07526	0.00081	1.79108	0.06726	0.17260	0.00621	0.958	no	1076	22	1042	24	1026	34	4.9
LS002A -134 -40um	204024	145	0.09563	0.00108	3.38164	0.12579	0.25646	0.00909	0.953	no	1541	21	1500	29	1472	46	5.0
LS002A -135 -40um	602600	79	0.09423	0.00096	3.32566	0.11478	0.25596	0.00844	0.956	no	1513	19	1487	27	1469	43	3.2
LS002A -136 -40um	489988	87	0.07820	0.00080	2.15336	0.08028	0.19972	0.00716	0.961	no	1152	20	1166	26	1174	38	-2.1
LS002A -137 -40um	339232	112	0.07535	0.00083	1.70742	0.05974	0.16434	0.00546	0.949	no	1078	22	1011	22	981	30	9.7
LS002A -138 -40um	285247	94	0.07109	0.00078	1.48801	0.05324	0.15180	0.00517	0.951	no	960	22	926	21	911	29	5.5
LS002A -139 -40um	433639	127	0.08015	0.00085	2.14440	0.07990	0.19404	0.00693	0.958	no	1201	21	1163	25	1143	37	5.2
LS002A -141 -40um	399939	111	0.07861	0.00086	2.04698	0.07516	0.18885	0.00662	0.955	no	1162	21	1131	25	1115	36	4.4
LS002A -142 -40um	37226	85	0.07382	0.00136	1.76261	0.07022	0.17318	0.00612	0.887	no	1036	37	1032	25	1030	34	0.7
LS002A -143 -40um	257539	62	0.07495	0.00079	1.77412	0.06143	0.17168	0.00566	0.953	no	1067	21	1036	22	1021	31	4.6

LS002A British Grid NT 19389 22724

Isotopic ratios					Apparent age summary												
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
LS002A-144 -40um	392565	122	0.10601	0.00112	4.44177	0.16999	0.30388	0.01118	0.961	no	1732	19	1720	31	1711	55	1.4
LS002A-145 -40um	46961	17	0.09292	0.00122	3.05927	0.11000	0.23879	0.00799	0.931	no	1486	25	1423	25	1380	41	7.9
LS002A-146 -40um	2194319	72	0.07371	0.00075	1.76949	0.05873	0.17412	0.00550	0.952	no	1033	20	1034	21	1035	30	-0.1
LS002A-147 -40um	212449	66	0.07239	0.00077	1.55793	0.05561	0.15610	0.00532	0.955	no	997	21	954	22	935	30	6.7
LS002A-148 -40um	237981	8	0.07300	0.00075	1.64964	0.05982	0.16389	0.00570	0.959	no	1014	21	989	23	978	31	3.8
LS002A-149 -40um	761581	59	0.09399	0.00098	3.22950	0.11104	0.24921	0.00817	0.953	no	1508	19	1464	26	1434	42	5.4
LS002A-150 -40um	558356	67	0.09406	0.00096	3.29995	0.11149	0.25445	0.00820	0.954	no	1509	19	1481	26	1461	42	3.6
LS002A-151 -40um	192971	17	0.07461	0.00082	1.73397	0.06475	0.16855	0.00602	0.956	no	1058	22	1021	24	1004	33	5.5
LS002A-152 -40um	270827	46	0.07552	0.00086	1.78824	0.06920	0.17173	0.00635	0.956	no	1082	23	1041	25	1022	35	6.1
LS002A-153 -40um	483076	26	0.07895	0.00082	2.01105	0.07113	0.18476	0.00625	0.956	no	1171	20	1119	24	1093	34	7.2
LS002A-154 -40um	72343	30	0.07542	0.00093	1.82189	0.07066	0.17520	0.00644	0.948	no	1080	25	1053	25	1041	35	3.9
LS002A-155 -40um	816116	37	0.10161	0.00103	4.02112	0.14292	0.28702	0.00978	0.958	no	1654	19	1638	28	1627	49	1.9
LS002A-156 -40um	223249	63	0.07347	0.00078	1.64535	0.05928	0.16243	0.00559	0.955	no	1027	21	988	23	970	31	5.9
LS002A-157 -40um	753193	25	0.09287	0.00096	3.15613	0.11305	0.24647	0.00845	0.957	no	1485	20	1446	27	1420	44	4.9
LS002A-158 -40um	845220	32	0.07789	0.00079	2.00839	0.07369	0.18702	0.00659	0.961	no	1144	20	1118	25	1105	36	3.7
LS002A-159 -40um	94931	19	0.07167	0.00087	1.54011	0.05386	0.15585	0.00511	0.938	no	977	24	947	21	934	28	4.7
LS002A-160 -40um	954430	45	0.09770	0.00100	3.67538	0.13500	0.27283	0.00963	0.961	no	1581	19	1566	29	1555	49	1.8
LS002A-162 -40um	2064477	95	0.18705	0.00190	13.15318	0.45034	0.51000	0.01668	0.955	no	2716	17	2691	32	2657	71	2.7
LS002A-163 -40um	583047	71	0.10006	0.00105	3.92332	0.14497	0.28436	0.01008	0.959	no	1625	19	1619	29	1613	50	0.8
LS002A-164 -40um	2924048	68	0.07702	0.00078	2.05686	0.07096	0.19368	0.00639	0.956	no	1122	20	1135	23	1141	34	-1.9
LS002A-165 -40um	296584	88	0.07565	0.00108	1.72941	0.06388	0.16581	0.00565	0.922	no	1086	28	1020	23	989	31	9.6
LS002A-166 -40um	2484076	84	0.07665	0.00078	2.01494	0.07141	0.19067	0.00647	0.957	no	1112	20	1121	24	1125	35	-1.3
LS002A-167 -40um	780128	41	0.10940	0.00111	4.61808	0.16211	0.30616	0.01029	0.957	no	1789	18	1753	29	1722	51	4.3
LS002A-169 -40um	521227	69	0.09458	0.00096	3.26798	0.10878	0.25060	0.00794	0.952	no	1520	19	1473	26	1442	41	5.7
LS002A-170 -40um	49632	95	0.07083	0.00114	1.49505	0.05750	0.15309	0.00535	0.908	no	953	33	928	23	918	30	3.9
LS002A-171 -40um	275773	68	0.08980	0.00094	2.87108	0.10805	0.23188	0.00838	0.960	no	1421	20	1374	28	1344	44	6.0
LS002A-173 -40um	1849196	58	0.07311	0.00074	1.74610	0.06109	0.17322	0.00580	0.957	no	1017	20	1026	22	1030	32	-1.4
LS002A-174 -40um	130179	46	0.07315	0.00083	1.63660	0.06024	0.16227	0.00568	0.951	no	1018	23	984	23	969	31	5.2
LS002A-176 -40um	1038658	83	0.07763	0.00081	1.99385	0.07123	0.18629	0.00636	0.956	no	1137	21	1113	24	1101	34	3.5
LS002A-177 -40um	1793633	103	0.10619	0.00107	4.51497	0.15575	0.30838	0.01017	0.956	no	1735	18	1734	28	1733	50	0.1
LS002A-177 -40um	1793633	103	0.10619	0.00107	4.51497	0.15575	0.30838	0.01017	0.956	no	1735	18	1734	28	1733	50	0.1
Discordance >10% or <-10%																	
LS002A-7 40um	204093	165	0.07690	0.00091	1.77938	0.06245	0.16782	0.00554	0.941	no	1119	24	1038	23	1000	31	11.4
LS002A-11 40um	258548	376	0.07218	0.00305	1.88903	0.09734	0.18981	0.00560	0.573	yes	991	84	1077	34	1120	30	-14.2
LS002A-14 40um	78725	214	0.07851	0.00331	1.66505	0.09067	0.15381	0.00530	0.633	no	1160	81	995	34	922	30	22.0
LS002A-25 40um	137366	78	0.08134	0.00157	1.88076	0.07456	0.16769	0.00580	0.873	no	1230	38	1074	26	999	32	20.2
LS002A-26 40um	198544	40	0.07311	0.00077	1.36956	0.04593	0.13586	0.00432	0.949	no	1017	21	876	19	821	24	20.5
LS002A-27 40um	55531	93	0.08467	0.00279	1.82947	0.08640	0.15671	0.00530	0.717	no	1308	63	1056	31	938	29	30.3
LS002A-29 40um	283531	38	0.07627	0.00082	1.76153	0.06214	0.16752	0.00563	0.953	no	1102	21	1031	23	998	31	10.1
LS002A-30 40um	43350	30	0.05417	0.00076	0.53576	0.01846	0.07173	0.00226	0.913	no	378	31	436	12	447	14	-18.8
LS002A-42 40um	853692	170	0.16794	0.00185	9.02590	0.31444	0.38980	0.01288	0.949	no	2537	18	2341	31	2122	59	19.2
LS002A-44 40um	2003456	516	0.06890	0.00088	0.75288	0.04657	0.07925	0.00480	0.978	yes	896	26	570	27	492	29	46.8
LS002A-47 40um	81850	171	0.07954	0.00186	1.77220	0.07361	0.16159	0.00555	0.827	no	1186	45	1035	27	966	31	20.0
LS002A-49 40um	215072	76	0.07827	0.00082	1.76371	0.05846	0.16344	0.00514	0.948	no	1154	21	1032	21	976	28	16.6
LS002A-60 40um	1181427	325	0.07453	0.00105	1.39092	0.04741	0.13535	0.00420	0.911	yes	1056	28	885	20	818	24	24.0
LS002A-69 40um	525131	265	0.07718	0.00094	1.79682	0.06413	0.16886	0.00567	0.940	no	1126	24	1044	23	1006	31	11.5
LS002A-72 40um	305159	362	0.05966	0.00240	1.26658	0.06305	0.15396	0.00452	0.590	yes	591	85	831	28	923	25	-60.2
LS002A-73 40um	253486	253	0.09572	0.00122	3.19405	0.12489	0.24200	0.00894	0.945	no	1542	24	1456	30	1397	46	10.5
LS002A-74 40um	111109	189	0.07205	0.00084	1.47693	0.05027	0.14867	0.00476	0.940	no	987	23	921	20	894	27	10.2
LS002A-110 -40um	17552	77	0.18652	0.01255	5.01099	0.38193	0.19485	0.00698	0.470	no	2712	107	1821	63	1148	38	62.7
LS002A-122 -40um	2017063	876	0.17175	0.00187	4.27282	0.17309	0.18043	0.00704	0.963	yes	2575	18	1688	33	1069	38	63.2
LS002A-133 -40um	92338	162	0.07670	0.00092	1.79129	0.06349	0.16938	0.00565	0.941	no	1113	24	1042	23	1009	31	10.2
LS002A-140 -40um	881756	405	0.07853	0.00149	1.91311	0.07431	0.17670	0.00599	0.873	no	1160	37	1086	26	1049	33	10.4
LS002A-161 -40um	133431	112	0.07861	0.00134	1.53691	0.05780	0.14180	0.00476	0.892	no	1162	33	945	23	855	27	28.2
LS002A-168 -40um	449772	81	0.18997	0.00193	12.38025	0.42842	0.47265	0.01563	0.956	no	2742	17	2634	32	2495	68	10.8
LS002A-172 -40um	174704	85	0.10092	0.00113	3.61434	0.13182	0.25975	0.00902	0.952	no	1641	21	1553	29	1489	46	10.4
LS002A-175 -40um	184066	62	0.07496	0.00092	1.65175	0.06349	0.15981	0.00582	0.947	no	1067	25	990	24	956	32	11.3

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
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LS004A		British Grid NX 6843 4379									Apparent age summary						
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
LS004A-2 40um	117761	39	0.09430	0.00106	3.41426	0.17697	0.26258	0.01329	0.976	no	1514	21	1508	40	1503	67	0.8
LS004A-3 40um	77218	28	0.07064	0.00081	1.58217	0.08006	0.16245	0.00801	0.974	no	947	23	963	31	970	44	-2.7
LS004A-5 40um	37516	40	0.07277	0.00115	1.71714	0.09330	0.17113	0.00890	0.957	no	1008	32	1015	34	1018	49	-1.1
LS004A-6 40um	262751	35	0.08913	0.00096	2.98879	0.15968	0.24321	0.01272	0.979	no	1407	21	1405	40	1403	66	0.3
LS004A-7 40um	65205	23	0.07181	0.00098	1.61927	0.08766	0.16355	0.00857	0.968	no	980	28	978	33	976	47	0.4
LS004A-9 40um	105130	34	0.08723	0.00106	2.73670	0.14312	0.22755	0.01157	0.973	no	1366	23	1338	38	1322	60	3.6
LS004A-10 40um	73785	47	0.07383	0.00081	1.71272	0.09445	0.16824	0.00909	0.980	no	1037	22	1013	35	1002	50	3.6
LS004A-11 40um	54429	35	0.09262	0.00120	3.13727	0.17209	0.24568	0.01309	0.971	no	1480	24	1442	41	1416	67	4.8
LS004A-12 40um	140041	61	0.07701	0.00138	1.96653	0.10220	0.18520	0.00904	0.939	no	1121	35	1104	34	1095	49	2.5
LS004A-13 40um	272667	45	0.17342	0.00179	11.56609	0.58091	0.48371	0.02377	0.979	no	2591	17	2570	46	2543	102	2.2
LS004A-14 40um	373080	44	0.07829	0.00080	2.11699	0.11325	0.19611	0.01030	0.981	no	1154	20	1154	36	1154	55	0.0
LS004A-15 40um	360609	29	0.07279	0.00075	1.70465	0.08763	0.16984	0.00855	0.980	no	1008	21	1010	32	1011	47	-0.3
LS004A-16 40um	460301	56	0.11537	0.00118	5.14205	0.24325	0.23225	0.01493	0.976	no	1886	18	1843	39	1806	72	4.9
LS004A-17 40um	323319	31	0.08088	0.00083	2.25390	0.12169	0.20211	0.01071	0.982	no	1219	20	1198	37	1187	57	2.9
LS004A-18 40um	306897	21	0.18709	0.00191	13.30692	0.70492	0.51584	0.02681	0.981	no	2717	17	2702	49	2682	113	1.6
LS004A-20 40um	563175	59	0.07790	0.00080	2.14988	0.13761	0.20016	0.01265	0.987	no	1144	20	1165	43	1176	68	-3.0
LS004A-21 40um	127508	26	0.09252	0.00110	3.24938	0.15923	0.25472	0.01211	0.970	no	1478	22	1469	37	1463	62	1.2
LS004A-24 40um	72826	33	0.05529	0.00065	0.53886	0.02749	0.07068	0.00351	0.973	no	424	26	438	18	440	21	-3.9
LS004A-25 40um	59770	51	0.05764	0.00108	0.59799	0.03002	0.07525	0.00350	0.928	no	516	41	476	19	468	21	9.7
LS004A-26 40um	165995	55	0.10344	0.00111	4.05441	0.20601	0.28429	0.01412	0.977	no	1687	20	1645	41	1613	70	4.9
LS004A-28 40um	126733	41	0.05708	0.00080	0.60350	0.03123	0.07668	0.00382	0.963	no	495	31	479	20	476	23	3.8
LS004A-32 40um	267252	31	0.19678	0.00202	13.60708	0.71534	0.50152	0.02586	0.981	no	2800	17	2723	49	2620	110	7.8
LS004A-33 40um	354245	21	0.07133	0.00073	1.58997	0.08343	0.16167	0.00832	0.981	no	967	21	966	32	966	46	0.1
LS004A-35 40um	277537	79	0.07948	0.00085	2.06515	0.11137	0.18845	0.00996	0.980	no	1184	21	1137	36	1113	54	6.5
LS004A-37 40um	13936	14	0.05456	0.00160	0.49616	0.03098	0.06595	0.00364	0.884	no	394	64	409	21	412	22	-4.5
LS004A-38 40um	152403	26	0.08698	0.00095	2.72413	0.14036	0.22714	0.01144	0.977	no	1360	21	1335	38	1319	60	3.3
LS004A-42 40um	349454	47	0.10017	0.00109	3.71150	0.20659	0.26874	0.01467	0.981	no	1627	20	1574	44	1534	74	6.4
LS004A-43 40um	327768	41	0.07819	0.00080	2.05113	0.10073	0.19026	0.00914	0.978	no	1152	20	1133	33	1123	49	2.7
LS004A-44 40um	115701	18	0.05551	0.00063	0.53024	0.02611	0.06928	0.00332	0.973	no	433	25	432	17	432	20	0.2
LS004A-45 40um	147190	33	0.07305	0.00079	1.72088	0.08374	0.17086	0.00810	0.975	no	1015	22	1016	31	1017	44	-0.2
LS004A-46 40um	166833	30	0.07648	0.00084	1.86148	0.10338	0.17653	0.00961	0.980	no	1108	22	1068	36	1048	52	5.8
LS004A-47 40um	67180	30	0.05464	0.00064	0.49193	0.02720	0.06530	0.00353	0.977	no	397	26	406	18	408	21	-2.7
LS004A-48 40um	136440	37	0.07530	0.00087	1.78787	0.09608	0.17221	0.00904	0.977	no	1076	23	1041	34	1024	50	5.2
LS004A-49 40um	126872	32	0.07461	0.00084	1.79355	0.09424	0.17435	0.00895	0.977	no	1058	22	1043	34	1036	49	2.2
LS004A-52 40um	760481	553	0.10388	0.00129	4.10210	0.21905	0.28640	0.01487	0.972	no	1695	23	1655	43	1624	74	4.7
LS004A-55 40um	99349	40	0.09162	0.00104	3.39223	0.19198	0.26852	0.01489	0.980	no	1460	21	1503	43	1533	75	-5.7
LS004A-56 40um	137281	36	0.07863	0.00085	2.11812	0.10722	0.19537	0.00966	0.977	no	1163	21	1155	34	1150	52	1.2
LS004A-57 40um	45431	59	0.05609	0.00088	0.52703	0.02817	0.06814	0.00348	0.956	no	456	35	430	19	425	21	7.1
LS004A-58 40um	205978	47	0.09934	0.00106	3.77197	0.19937	0.27537	0.01425	0.979	no	1612	20	1587	42	1568	72	3.1
LS004A-60 40um	97810	70	0.07652	0.00120	1.85001	0.09850	0.17535	0.00892	0.955	no	1109	31	1063	34	1041	49	6.6
LS004A-62 40um	236001	64	0.09496	0.00103	3.49108	0.13771	0.26665	0.01011	0.962	no	1527	20	1525	31	1524	51	0.3
LS004A-63 40um	34337	86	0.07761	0.00146	2.03465	0.07732	0.19014	0.00628	0.869	no	1137	37	1127	26	1122	34	1.4
LS004A-64 40um	72983	68	0.05676	0.00085	0.61042	0.02217	0.07799	0.00258	0.910	no	482	33	484	14	484	15	-0.4
LS004A-65 40um	235099	66	0.07463	0.00078	1.85703	0.07820	0.18046	0.00736	0.968	no	1059	21	1066	27	1069	40	-1.1
LS004A-67 40um	344455	101	0.09032	0.00092	3.19658	0.11987	0.25668	0.00926	0.962	no	1432	19	1456	29	1473	47	-3.2
LS004A-68 40um	227768	114	0.09989	0.00130	4.09059	0.17770	0.29700	0.01231	0.954	no	1622	24	1652	35	1676	61	-3.8
LS004A-70 40um	990326	104	0.07393	0.00075	1.87145	0.07246	0.18359	0.00686	0.965	no	1040	20	1071	25	1087	37	-4.9
LS004A-71 40um	28892	106	0.05548	0.00118	0.53437	0.02126	0.06986	0.00235	0.845	no	432	47	435	14	435	14	-0.9
LS004A-72 40um	307525	86	0.09942	0.00106	4.01043	0.15451	0.29257	0.01083	0.961	no	1613	20	1636	31	1654	54	-2.9
LS004A-73 40um	494205	182	0.09333	0.00095	3.24931	0.12317	0.25251	0.00922	0.963	no	1495	19	1469	29	1451	47	3.2
LS004A-74 40um	158792	725	0.07494	0.00143	1.77756	0.10066	0.17204	0.00917	0.942	no	1067	38	1037	36	1023	50	4.4
LS004A-75 40um	68573	90	0.08003	0.00130	2.29787	0.09057	0.20825	0.00748	0.912	no	1198	32	1212	28	1219	40	-2.0
LS004A-77 40um	161355	99	0.19291	0.00203	14.33402	0.56571	0.53891	0.02050	0.964	no	2767	17	2772	37	2779	85	-0.5
LS004A-78 40um	75652	110	0.07432	0.00105	1.75908	0.06603	0.17165	0.00597	0.926	no	1050	28	1031	24	1021	33	3.0
LS004A-79 40um	123491	96	0.07843	0.00092	2.12063	0.08119	0.19609	0.00715	0.952	no	1158	23	1156	26	1154	38	0.3
Discordance >10% or <-10%																	
LS004A-1 40um	61967	65	0.08013	0.00145	1.95791	0.09883	0.17721	0.00835	0.934	no	1200	35	1101	33	1052	46	13.4
LS004A-4 40um	83823	39	0.05804	0.00109	0.57456	0.03743	0.07179	0.00448	0.958	no	531	41	461	24	447	27	16.4
LS004A-8 40um	55298	60	0.07654	0.00132	1.71184	0.08767	0.16220	0.00782	0.941	no	1109	34	1013	32	969	43	13.6
LS004A-19 40um	304774	313	0.11285	0.00130	4.20308	0.23100	0.27012	0.01452	0.978	no	1846	21	1675	44	1541	73	18.5

LS004A British Grid NX 6843 4379

Isotopic ratios

Apparent age summary

sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma)	error (Ma)	age (Ma)	error (Ma)	age (Ma)	error (Ma)	discordance %
											²⁰⁷ Pb*/ ²⁰⁶ Pb*	2 σ	²⁰⁷ Pb*/ ²³⁵ U	2 σ	²⁰⁶ Pb*/ ²³⁸ U	2 σ	
LS004A-22 40um	314419	1492	0.14792	0.00691	4.83753	0.33476	0.23718	0.01211	0.738	no	2322	78	1791	57	1372	63	45.3
LS004A-23 40um	33284	46	0.05752	0.00117	0.57412	0.03577	0.07239	0.00426	0.945	no	512	44	461	23	451	26	12.4
LS004A-27 40um	171694	56	0.05691	0.00071	0.52551	0.02525	0.06697	0.00311	0.966	no	488	27	429	17	418	19	14.9
LS004A-29 40um	160381	55	0.05722	0.00072	0.53178	0.02723	0.06740	0.00334	0.969	no	500	28	433	18	421	20	16.4
LS004A-30 40um	332433	76	0.07225	0.00080	1.42733	0.07607	0.14328	0.00747	0.978	no	993	22	900	31	863	42	14.0
LS004A-31 40um	52524	47	0.07999	0.00197	1.99872	0.10939	0.18123	0.00886	0.893	no	1197	48	1115	36	1074	48	11.2
LS004A-34 40um	348726	128	0.19152	0.00204	12.24043	0.74234	0.46353	0.02767	0.984	no	2755	17	2623	55	2455	121	13.1
LS004A-36 40um	421039	209	0.09952	0.00110	3.35153	0.18177	0.24424	0.01297	0.979	no	1615	20	1493	42	1409	67	14.2
LS004A-39 40um	664368	354	0.19608	0.00210	11.94929	0.57048	0.44198	0.02056	0.974	no	2794	17	2600	44	2359	91	18.5
LS004A-40 40um	661348	210	0.10131	0.00120	3.62459	0.19108	0.25949	0.01333	0.974	no	1648	22	1555	41	1487	68	10.9
LS004A-41 40um	471007	73	0.11698	0.00118	4.93593	0.29651	0.30601	0.01812	0.986	no	1911	18	1808	49	1721	89	11.3
LS004A-50 40um	603411	212	0.07603	0.00097	1.63045	0.08223	0.15553	0.00759	0.968	no	1096	25	982	31	932	42	16.1
LS004A-51 40um	417869	215	0.11420	0.00136	3.39168	0.18950	0.21540	0.01176	0.977	no	1867	21	1502	43	1258	62	35.9
LS004A-53 40um	75284	74	0.06302	0.00156	0.63079	0.03856	0.07260	0.00405	0.914	no	709	52	497	24	452	24	37.5
LS004A-54 40um	29696	62	0.06115	0.00115	0.59721	0.03284	0.07083	0.00366	0.940	no	645	40	475	21	441	22	32.7
LS004A-59 40um	15856	54	0.06034	0.00131	0.58441	0.03165	0.07024	0.00349	0.916	no	616	46	467	20	438	21	29.9
LS004A-61 40um	217408	467	0.08332	0.00275	0.82890	0.04029	0.07215	0.00257	0.734	no	1277	63	613	22	449	15	67.1
LS004A-66 40um	632773	1733	0.12613	0.00506	4.57658	0.24741	0.26317	0.00954	0.671	no	2045	69	1745	44	1506	49	29.5
LS004A-69 40um	33087	84	0.05676	0.00096	0.54596	0.02273	0.06976	0.00265	0.914	no	482	37	442	15	435	16	10.2
LS004A-76 40um	93884	123	0.05888	0.00079	0.64445	0.02849	0.07938	0.00334	0.953	no	563	29	505	17	492	20	13.0
LS004A-80 40um	339857	472	0.10308	0.00156	3.62222	0.17385	0.25485	0.01161	0.949	no	1680	28	1554	37	1463	59	14.4

LS004A

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15-1 40um	*	0.114552	0.000217	0.318972	0.002757
LH94-15-2 40um		0.113893	0.000135	0.321445	0.002547
LH94-15-3 40um		0.113962	0.000094	0.318953	0.002592
LH94-15-4 40um		0.113720	0.000114	0.319271	0.001395
LH94-15-5 40um		0.113526	0.000126	0.310573	0.002279
LH94-15-6 40um		0.113487	0.000164	0.312201	0.002005
LH94-15-7 40um		0.113935	0.000177	0.306857	0.002040
LH94-15-8 40um		0.114312	0.000124	0.309054	0.002872
LH94-15-9 40um		0.114271	0.000144	0.301395	0.001911
LH94-15-10 40um		0.114140	0.000127	0.300372	0.002313
LH94-15-11 40um		0.114235	0.000124	0.307127	0.001806
LH94-15-12 40um		0.114266	0.000122	0.312303	0.002177
LH94-15-13 40um		0.114784	0.000130	0.297814	0.001601
LH94-15-14 40um		0.114857	0.000183	0.300964	0.002228
LH94-15-15 40um		0.114973	0.000168	0.294133	0.001522
LH94-15-16 40um		0.114943	0.000191	0.294162	0.001914
LH94-15-17 40um		0.115027	0.000148	0.297342	0.002044
LH94-15-18 40um		0.114390	0.000149	0.294155	0.001757

Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML015A -1 40 um	705628	109	0.09173	0.00095	3.18791	0.13966	0.25205	0.01073	0.972	no	1462	20	1454	33	1449	55	1.0
ML015A -3 40 um	55759	66	0.05935	0.00075	0.82945	0.03616	0.10136	0.00423	0.957	no	580	27	613	20	622	25	-7.7
ML015A -4 40 um	1447988	74	0.18686	0.00189	13.22017	0.56314	0.51312	0.02123	0.971	no	2715	17	2695	39	2670	90	2.0
ML015A -5 40 um	83653	85	0.05933	0.00067	0.79203	0.03639	0.09682	0.00431	0.969	no	579	24	592	20	596	25	-3.0
ML015A -6 40 um	305599	75	0.12762	0.00130	6.56495	0.26276	0.37308	0.01444	0.967	no	2066	18	2055	35	2044	67	1.2
ML015A -7 40 um	327673	72	0.10623	0.00111	4.38727	0.19660	0.29955	0.01305	0.972	no	1736	19	1710	36	1689	64	3.0
ML015A -10 40 um	280777	101	0.06059	0.00078	0.84146	0.03650	0.10072	0.00417	0.955	no	625	27	620	20	619	24	1.0
ML015A -11 40 um	96946	100	0.06111	0.00104	0.80624	0.03450	0.09569	0.00375	0.917	no	643	36	600	19	589	22	8.8
ML015A -13 40 um	1059532	148	0.08450	0.00092	2.35283	0.09713	0.20195	0.00804	0.965	no	1304	21	1228	29	1186	43	9.9
ML015A -14 40 um	194049	117	0.07747	0.00087	1.94338	0.08349	0.18194	0.00755	0.966	no	1133	22	1096	28	1078	41	5.3
ML015A -15 40 um	933533	104	0.11112	0.00124	4.84730	0.20824	0.31638	0.01313	0.966	no	1818	20	1793	36	1772	64	2.9
ML015A -17 40 um	2356849	143	0.18115	0.00290	11.59398	0.53548	0.46419	0.02011	0.938	no	2663	26	2572	42	2458	88	9.3
ML015A -18 40 um	357850	156	0.06224	0.00083	0.87113	0.03668	0.10151	0.00405	0.948	no	682	28	636	20	623	24	9.1
ML015A -19 40 um	158056	118	0.06139	0.00074	0.83920	0.03389	0.09914	0.00382	0.954	no	653	26	619	19	609	22	7.0
ML015A -20 40 um	230915	105	0.05996	0.00065	0.80699	0.03361	0.09761	0.00392	0.965	no	602	23	601	19	600	23	0.3
ML015A -22 40 um	1146327	193	0.06060	0.00062	0.81420	0.03350	0.09744	0.00387	0.965	no	625	23	605	19	599	23	4.3
ML015A -25 40 um	913837	196	0.09139	0.00103	2.99394	0.12092	0.23759	0.00921	0.960	no	1455	21	1406	30	1374	48	6.2
ML015A -26 40 um	246151	146	0.08427	0.00100	2.44076	0.10316	0.21005	0.00852	0.960	no	1299	23	1255	30	1229	45	5.9
ML015A -27 40 um	1229603	350	0.20754	0.00234	16.29949	0.71789	0.56960	0.02425	0.967	yes	2886	18	2895	41	2906	99	-0.8
ML015A -28 40 um	266825	138	0.09583	0.00102	3.51708	0.15242	0.26618	0.01118	0.969	no	1544	20	1531	34	1521	57	1.7
ML015A -29 40 um	281492	182	0.06118	0.00070	0.83451	0.03689	0.09893	0.00422	0.966	no	645	24	616	20	608	25	6.1
ML015A -30 40 um	328097	144	0.12068	0.00123	5.82535	0.24243	0.35009	0.01412	0.969	no	1966	18	1950	35	1935	67	1.8
ML015A -31 40 um	740482	149	0.07812	0.00080	2.06918	0.08976	0.19210	0.00810	0.972	no	1150	20	1139	29	1133	44	1.6
ML015A -33 40 um	164092	151	0.06044	0.00068	0.79461	0.03441	0.09534	0.00399	0.965	no	620	24	594	19	587	23	5.5
ML015A -34 40 um	828346	148	0.07928	0.00090	2.11571	0.10455	0.19356	0.00931	0.973	no	1179	22	1154	34	1141	50	3.6
ML015A -35 40 um	244992	161	0.05956	0.00062	0.77134	0.03256	0.09393	0.00384	0.969	no	588	23	581	18	579	23	1.6
ML015A -37 40 um	2263572	93	0.17725	0.00180	11.76066	0.48104	0.48121	0.01907	0.969	no	2627	17	2586	38	2533	82	4.4
ML015A -38 40 um	1184305	116	0.12308	0.00149	5.60711	0.23491	0.33041	0.01325	0.957	no	2001	21	1917	35	1840	64	9.2
ML015A -39 40 um	2840017	391	0.17417	0.00204	11.09405	0.44615	0.46197	0.01777	0.957	yes	2598	19	2531	37	2448	78	6.9
ML015A -40 40 um	184854	90	0.06006	0.00066	0.77742	0.03192	0.09387	0.00371	0.964	no	606	23	584	18	578	22	4.7
ML015A -42 40 um	2403025	121	0.16940	0.00174	10.57778	0.47942	0.45288	0.01999	0.974	no	2552	17	2487	41	2408	88	6.7
ML015A -43 40 um	303075	136	0.06009	0.00063	0.74593	0.03183	0.09003	0.00372	0.969	no	607	23	566	18	556	22	8.8
ML015A -46 40 um	114001	97	0.06402	0.00081	1.01020	0.04284	0.11444	0.00463	0.954	no	742	27	709	21	698	27	6.2
ML015A -49 40 um	322734	133	0.06409	0.00084	1.00203	0.04247	0.11339	0.00457	0.951	no	745	27	705	21	692	26	7.4
ML015A -51 40 um	1262795	144	0.19141	0.00199	13.71764	0.56969	0.51978	0.02090	0.968	no	2754	17	2730	39	2698	88	2.5
ML015A -55 40 um	1278166	195	0.13022	0.00132	6.49100	0.26617	0.36153	0.01436	0.969	no	2101	18	2045	35	1989	68	6.2
ML015A -59 40 um	113804	143	0.07589	0.00091	1.88702	0.08758	0.18035	0.00809	0.966	no	1092	24	1077	30	1069	44	2.3
ML015A -62 40 um	322018	195	0.06135	0.00071	0.86584	0.04585	0.10235	0.00529	0.976	no	652	25	633	25	628	31	3.8
ML015A -63 40 um	227563	129	0.09819	0.00104	3.69018	0.16794	0.27256	0.01206	0.973	no	1590	20	1569	36	1554	61	2.6
ML015A -65 40 um	2153253	188	0.17716	0.00206	11.30791	0.46053	0.46293	0.01807	0.958	no	2626	19	2549	37	2452	79	8.0
ML015A -69 40 um	104477	184	0.05746	0.00067	0.66816	0.02962	0.08433	0.00361	0.965	no	509	25	520	18	522	21	-2.6
ML015A -71 40 um	345928	217	0.06216	0.00074	0.90082	0.03960	0.10511	0.00445	0.963	no	680	25	652	21	644	26	5.4
ML015A -72 40 um	315527	215	0.12120	0.00144	5.62784	0.22881	0.33677	0.01309	0.956	no	1974	21	1920	34	1871	63	6.0
ML015A -75 40 um	111237	235	0.06057	0.00082	0.81068	0.03304	0.09707	0.00373	0.944	no	624	29	603	18	597	22	4.5
ML015A -77 40 um	399802	294	0.13374	0.00189	7.07076	0.29929	0.38344	0.01530	0.943	no	2148	24	2120	37	2092	71	3.0
ML015A -78 A 40 um	358771	245	0.06201	0.00077	0.90215	0.04128	0.10551	0.00465	0.962	no	675	26	653	22	647	27	4.3
ML015A -78 C 40 um	467653	209	0.08075	0.00084	2.28119	0.09473	0.20488	0.00824	0.968	no	1215	20	1206	29	1201	44	1.3
ML015A -80 40 um	87511	200	0.05822	0.00069	0.73516	0.03072	0.09158	0.00367	0.959	no	538	26	560	18	565	22	-5.2
ML015A -82 40 um	230699	283	0.10525	0.00157	4.08106	0.17070	0.28123	0.01099	0.935	no	1719	27	1651	34	1598	55	7.9
ML015A -83 40 um	82162	236	0.06085	0.00083	0.79857	0.03374	0.09519	0.00380	0.946	no	634	29	596	19	586	22	7.9
ML015A -84 40 um	585384	283	0.09642	0.00101	3.37252	0.14427	0.25367	0.01052	0.970	no	1556	19	1498	33	1457	54	7.1
ML015A -85 40 um	436081	233	0.20371	0.00206	14.96412	0.64375	0.53277	0.02228	0.972	no	2856	16	2813	40	2753	93	4.4
ML015A -91 40 um	873829	297	0.09361	0.00112	3.19913	0.15081	0.24785	0.01130	0.967	no	1500	23	1457	36	1427	58	5.4
ML015A -94 40 um	177026	307	0.09679	0.00186	3.40727	0.15104	0.25531	0.01020	0.901	no	1563	36	1506	34	1466	52	7.0
ML015A -95 40 um	91310	267	0.06131	0.00109	0.83709	0.03900	0.09902	0.00426	0.924	no	650	38	618	21	609	25	6.7
ML015A -96 40 um	230302	283	0.10622	0.00111	4.11652	0.17416	0.28106	0.01152	0.969	no	1736	19	1658	34	1597	58	9.0
ML015A -101 40 um	44685	129	0.06129	0.00078	0.80932	0.03435	0.09576	0.00388	0.954	no	650	27	602	19	590	23	9.7
ML015A -102 40 um	95978	136	0.06013	0.00068	0.80501	0.03698	0.09710	0.00432	0.969	no	608	24	600	21	597	25	1.9
ML015A -107 40 um	353827	146	0.09160	0.00182	3.20596	0.14404	0.25384	0.01023	0.897	yes	1459	37	1459	34	1458	52	0.1
ML015A -109 40 um	125188	122	0.06044	0.00067	0.81774	0.03591	0.09812	0.00417	0.968	no	619	24	607	20	603	24	2.7

ML015A British Grid NY 17702 25832

Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML015A-110 40 um	98804	211	0.05975	0.00080	0.77289	0.03825	0.09382	0.00447	0.963	no	594	29	581	22	578	26	2.9
ML015A-111 40 um	376877	212	0.12571	0.00141	5.96648	0.28234	0.34422	0.01582	0.971	no	2039	20	1971	40	1907	75	7.5
ML015A-112 40 um	187305	133	0.06091	0.00066	0.84280	0.03632	0.10035	0.00419	0.968	no	636	23	621	20	616	24	3.2
ML015A-113 40 um	191136	152	0.05851	0.00077	0.66265	0.02721	0.08214	0.00320	0.947	no	549	29	516	16	509	19	7.6
ML015A-115 40 um	81742	149	0.06115	0.00105	0.87010	0.05215	0.10319	0.00593	0.958	no	645	36	636	28	633	35	1.9
ML015A-117 40 um	86562	163	0.05627	0.00074	0.55677	0.02438	0.07176	0.00300	0.954	no	463	29	449	16	447	18	3.7
ML015A-119 40 um	256401	200	0.08785	0.00099	2.65848	0.11324	0.21948	0.00902	0.964	no	1379	21	1317	31	1279	47	8.0
ML015A-121 40 um	355920	141	0.12837	0.00131	6.57666	0.29329	0.37156	0.01613	0.973	no	2076	18	2056	39	2037	75	2.2
ML015A-123 40 um	935201	149	0.12437	0.00126	5.79550	0.27005	0.33797	0.01537	0.976	no	2020	18	1946	40	1877	74	8.2
ML015A-126 40 um	735643	153	0.09455	0.00098	3.20078	0.13304	0.24551	0.00988	0.969	no	1519	19	1457	32	1415	51	7.6
ML015A-127 40 um	122336	151	0.06018	0.00068	0.80877	0.03630	0.09747	0.00424	0.968	no	610	24	602	20	600	25	1.8
Discordance >10% or <-10%																	
ML015A-9 40 um	732152	168	0.08894	0.00094	2.52304	0.11304	0.20574	0.00896	0.972	no	1403	20	1279	32	1206	48	15.4
ML015A-12 40 um	138734	91	0.05952	0.00072	0.68857	0.03088	0.08391	0.00362	0.963	no	586	26	532	18	519	22	11.8
ML015A-21 40 um	3896409	1540	0.19076	0.00204	12.40306	0.53610	0.47157	0.01975	0.969	yes	2749	17	2635	40	2490	86	11.3
ML015A-32 40 um	460215	269	0.06436	0.00069	0.95314	0.03867	0.10741	0.00420	0.965	no	753	22	680	20	658	24	13.4
ML015A-41 40 um	204414	139	0.06259	0.00107	0.86136	0.03742	0.09981	0.00399	0.919	no	694	36	631	20	613	23	12.2
ML015A-44 40 um	155639	154	0.06057	0.00074	0.70214	0.03108	0.08407	0.00358	0.961	no	624	26	540	18	520	21	17.3
ML015A-45 40 um	277035	303	0.05623	0.00238	0.87402	0.06169	0.11274	0.00637	0.801	yes	461	91	638	33	689	37	-52.0
ML015A-47 40 um	3194269	173	0.12870	0.00130	6.08094	0.25852	0.34269	0.01415	0.972	no	2080	18	1988	36	1900	68	10.0
ML015A-48 40 um	811360	197	0.07070	0.00079	1.38980	0.05780	0.14257	0.00571	0.963	no	949	23	885	24	859	32	10.1
ML015A-50 40 um	296372	146	0.06186	0.00066	0.81304	0.03559	0.09532	0.00405	0.969	no	669	23	604	20	587	24	12.9
ML015A-53 40 um	95990	122	0.06161	0.00088	0.80804	0.03430	0.09513	0.00380	0.941	no	660	30	601	19	586	22	11.8
ML015A-54 40 um	459230	212	0.08132	0.00098	1.95980	0.07937	0.17478	0.00676	0.955	no	1229	23	1102	27	1038	37	16.8
ML015A-60 40 um	600305	207	0.10075	0.00105	3.56516	0.15130	0.25664	0.01056	0.970	no	1638	19	1542	33	1473	54	11.3
ML015A-64 40 um	447436	255	0.06358	0.00072	0.93734	0.05123	0.10692	0.00572	0.979	no	728	24	671	27	655	33	10.5
ML015A-67 40 um	325887	247	0.06289	0.00113	0.82853	0.03965	0.09555	0.00424	0.927	no	705	38	613	22	588	25	17.3
ML015A-73 40 um	139377	234	0.06110	0.00098	0.77626	0.03507	0.09215	0.00389	0.935	no	643	34	583	20	568	23	12.1
ML015A-74 40 um	176635	229	0.06219	0.00077	0.83827	0.03721	0.09776	0.00417	0.961	no	681	26	618	20	601	24	12.2
ML015A-81 40 um	279552	228	0.09077	0.00115	2.69518	0.12648	0.21536	0.00973	0.963	no	1442	24	1327	34	1257	51	14.1
ML015A-87 40 um	467491	371	0.05014	0.00237	0.65784	0.03899	0.09515	0.00342	0.606	yes	202	106	513	24	586	20	-199.4
ML015A-98 40 um	532586	182	0.06102	0.00246	0.98054	0.06291	0.11654	0.00582	0.779	yes	640	84	694	32	711	34	-11.6
ML015A-105 40 um	121917	173	0.06123	0.00079	0.76553	0.03218	0.09068	0.00363	0.951	no	647	28	577	18	560	21	14.1
ML015A-106 40 um	547241	373	0.07641	0.00103	1.63438	0.08864	0.15513	0.00815	0.969	no	1106	27	984	34	930	45	17.1
ML015A-108 40 um	302757	172	0.06255	0.00070	0.82204	0.03552	0.09531	0.00398	0.965	no	693	24	609	20	587	23	16.0
ML015A-116 40 um	102617	195	0.06669	0.00113	1.04470	0.04485	0.11361	0.00448	0.918	no	828	35	726	22	694	26	17.1
ML015A-118 40 um	743531	196	0.09531	0.00097	2.91764	0.12829	0.22202	0.00950	0.973	no	1534	19	1386	33	1293	50	17.4
ML015A-124 40 um	168630	171	0.06172	0.00097	0.82088	0.03514	0.09645	0.00384	0.930	no	665	33	609	19	594	23	11.2
ML015A-130 40 um	124597	183	0.06167	0.00072	0.80406	0.03413	0.09457	0.00386	0.962	no	663	25	599	19	582	23	12.6
ML015A-132 40 um	222023	208	0.04769	0.00251	0.53671	0.03415	0.08162	0.00293	0.564	yes	84	120	436	22	506	17	-522.7

ML015A

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15-1 40 um		0.112615	0.000136	0.289694	0.002175
LH94-15-2 40 um		0.112199	0.000153	0.289917	0.002137
LH94-15-3 40 um		0.112849	0.000145	0.291559	0.002721
LH94-15-4 40 um		0.112346	0.000133	0.292587	0.002058
LH94-15-5 40 um		0.112084	0.000133	0.307502	0.003100
LH94-15-6 40 um		0.112314	0.000124	0.303193	0.003062
LH94-15-7 40 um		0.112466	0.000136	0.305582	0.002373
LH94-15-8 40 um		0.112867	0.000171	0.296436	0.003600
LH94-15-9 40 um		0.112746	0.000139	0.304290	0.002725
LH94-15-10 40 um		0.113057	0.000172	0.303651	0.002049
LH94-15-11 40 um		0.112866	0.000129	0.302456	0.002874
LH94-15-12 40 um		0.113212	0.000140	0.305942	0.002724
LH94-15-13 40 um		0.113073	0.000145	0.294629	0.002167
LH94-15-14 40 um		0.113079	0.000131	0.297890	0.003248
LH94-15-15 40 um		0.112885	0.000118	0.292604	0.003470

ML016A British Grid NY 15564 31567											Apparent age summary						
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML016A-1	157532	137	0.09341	0.00098	3.38039	0.15995	0.26246	0.01211	0.975	no	1496	20	1500	36	1502	62	-0.5
ML016A-2	76143	150	0.05893	0.00072	0.70403	0.02703	0.08665	0.00315	0.948	no	564	26	541	16	536	19	5.3
ML016A-3	53026	155	0.05880	0.00082	0.71814	0.02742	0.08858	0.00315	0.931	no	560	30	550	16	547	19	2.3
ML016A-5	117624	105	0.08178	0.00094	2.26764	0.11935	0.20110	0.01033	0.976	no	1240	22	1202	36	1181	55	5.2
ML016A-7	316084	0	0.12141	0.00125	5.80552	0.26425	0.34681	0.01538	0.974	no	1977	18	1947	39	1919	73	3.4
ML016A-9	100767	0	0.06925	0.00110	1.35967	0.09165	0.14241	0.00933	0.972	no	906	32	872	39	858	52	5.6
ML016A-11	31344	1	0.05962	0.00083	0.82737	0.03039	0.10065	0.00342	0.925	no	590	30	612	17	618	20	-5.1
ML016A-12	57984	7	0.05964	0.00070	0.77481	0.02792	0.09422	0.00321	0.946	no	591	25	583	16	580	19	1.8
ML016A-14	180044	117	0.18671	0.00197	12.61476	0.63965	0.49001	0.02430	0.978	no	2713	17	2651	47	2571	104	6.4
ML016A-17	49381	99	0.05836	0.00070	0.65347	0.02389	0.08120	0.00280	0.944	no	543	26	511	15	503	17	7.7
ML016A-18	136083	102	0.09169	0.00097	3.00556	0.14588	0.23775	0.01126	0.976	no	1461	20	1409	36	1375	58	6.5
ML016A-19	314173	107	0.15943	0.00164	9.44841	0.45387	0.42981	0.02017	0.977	no	2450	17	2383	43	2305	90	7.0
ML016A-22	19984	138	0.08253	0.00219	2.25641	0.11940	0.19829	0.00908	0.865	no	1258	51	1199	37	1166	49	8.0
ML016A-23	319730	140	0.09860	0.00107	3.48580	0.17267	0.25640	0.01239	0.976	no	1598	20	1524	38	1471	63	8.8
ML016A-24	37769	158	0.05904	0.00075	0.67652	0.02524	0.08311	0.00291	0.940	no	568	27	525	15	515	17	9.8
ML016A-25	528397	154	0.16132	0.00236	9.53864	0.48317	0.42883	0.02080	0.958	no	2470	24	2391	46	2300	93	8.1
ML016A-27	137448	182	0.06149	0.00084	0.81787	0.03065	0.09647	0.00336	0.931	no	656	29	607	17	594	20	10.0
ML016A-28	54315	175	0.05959	0.00073	0.75218	0.02786	0.09155	0.00320	0.943	no	589	26	569	16	565	19	4.2
ML016A-29	179904	235	0.06105	0.00069	0.85009	0.03422	0.10099	0.00390	0.960	no	641	24	625	19	620	23	3.4
ML016A-30	130412	235	0.06083	0.00067	0.80188	0.02943	0.09561	0.00335	0.953	no	633	24	598	16	589	20	7.4
ML016A-32	223765	157	0.13987	0.00144	7.45488	0.35384	0.38655	0.01791	0.976	no	2226	18	2168	42	2107	83	6.3
ML016A-33	139112	169	0.05998	0.00069	0.74543	0.02582	0.09014	0.00295	0.943	no	603	25	566	15	556	17	8.0
ML016A-34	95570	237	0.06435	0.00074	1.03292	0.03701	0.11641	0.00395	0.948	no	753	24	720	18	710	23	6.1
ML016A-35	84743	206	0.06195	0.00071	0.85638	0.02936	0.10026	0.00324	0.942	no	672	24	628	16	616	19	8.8
ML016A-36	563300	226	0.08607	0.00088	2.63815	0.12467	0.22229	0.01026	0.976	no	1340	20	1311	34	1294	54	3.8
ML016A-37	281838	169	0.09542	0.00101	3.44444	0.16211	0.26181	0.01201	0.975	no	1536	20	1515	36	1499	61	2.7
ML016A-38	426926	219	0.11996	0.00124	5.66066	0.27595	0.34224	0.01631	0.977	no	1956	18	1925	41	1897	78	3.4
ML016A-39	204051	179	0.05912	0.00069	0.69034	0.02695	0.08469	0.00315	0.954	no	572	25	533	16	524	19	8.7
ML016A-40	361272	104	0.09498	0.00098	3.31880	0.17913	0.25342	0.01343	0.982	no	1528	19	1485	41	1456	69	5.2
ML016A-41	123135	176	0.12558	0.00195	5.96829	0.28289	0.34470	0.01543	0.945	no	2037	27	1971	40	1909	74	7.2
ML016A-43	414454	100	0.12403	0.00127	5.89803	0.29709	0.34489	0.01701	0.979	no	2015	18	1961	43	1910	81	6.0
ML016A-44	269679	63	0.08663	0.00094	2.56893	0.12187	0.21508	0.00993	0.974	no	1352	21	1292	34	1256	52	7.8
ML016A-45	1010718	1	0.17153	0.00191	10.44008	0.49022	0.44144	0.02013	0.971	no	2573	19	2475	43	2357	89	10.0
ML016A-46	444358	13	0.21980	0.00223	16.44635	0.76667	0.54268	0.02469	0.976	no	2979	16	2903	44	2795	102	7.6
ML016A-49	59860	59	0.09475	0.00111	3.22207	0.15089	0.24663	0.01119	0.968	no	1523	22	1462	36	1421	58	7.5
ML016A-50	247927	22	0.12540	0.00129	6.00045	0.27869	0.34703	0.01572	0.975	no	2035	18	1976	40	1920	75	6.5
ML016A-51	118798	7	0.09364	0.00100	3.17225	0.14923	0.24569	0.01126	0.974	no	1501	20	1450	36	1416	58	6.3
ML016A-53	167108	160	0.09420	0.00101	3.22906	0.15000	0.24863	0.01124	0.973	no	1512	20	1464	35	1431	58	5.9
ML016A-56	110528	110	0.13246	0.00142	6.73968	0.32786	0.36903	0.01751	0.975	no	2131	19	2078	42	2025	82	5.8
ML016A-57	397601	94	0.11631	0.00120	5.25998	0.25346	0.32801	0.01544	0.977	no	1900	18	1862	40	1829	75	4.3
ML016A-58	53779	69	0.05891	0.00081	0.70360	0.02809	0.08662	0.00325	0.939	no	564	30	541	17	536	19	5.2
ML016A-60	72029	19	0.05881	0.00076	0.67776	0.02543	0.08358	0.00295	0.939	no	560	28	525	15	517	17	7.9
ML016A-61	156573	16	0.05853	0.00068	0.67325	0.02461	0.08343	0.00289	0.948	no	550	25	523	15	517	17	6.2
ML016A-62	21240	45	0.06053	0.00123	0.83516	0.03143	0.10006	0.00317	0.842	no	623	43	616	17	615	19	1.3
ML016A-63	194977	30	0.05886	0.00063	0.69728	0.02439	0.08591	0.00286	0.952	no	562	23	537	14	531	17	5.7
ML016A-64	210355	38	0.09365	0.00098	3.15381	0.15362	0.24424	0.01162	0.976	no	1501	20	1446	37	1409	60	6.9
ML016A-65	117146	30	0.06103	0.00071	0.81477	0.03029	0.09683	0.00342	0.950	no	640	25	605	17	596	20	7.2
ML016A-66	168437	55	0.06069	0.00065	0.77839	0.02715	0.09302	0.00309	0.951	no	628	23	585	15	573	18	9.1
ML016A-67	147077	66	0.06044	0.00068	0.79531	0.03110	0.09544	0.00357	0.957	no	619	24	594	17	588	21	5.4
ML016A-68	313844	72	0.06402	0.00071	0.97903	0.03736	0.11092	0.00405	0.957	no	742	23	693	19	678	23	9.1
ML016A-69	241751	70	0.09220	0.00144	3.06173	0.15495	0.24085	0.01159	0.951	no	1471	29	1423	38	1391	60	6.1
ML016A-70	43502	79	0.12717	0.00144	6.10034	0.31265	0.34792	0.01739	0.975	no	2059	20	1990	44	1925	83	7.6
ML016A-72	456841	201	0.09887	0.00101	3.63105	0.16911	0.26635	0.01210	0.976	no	1603	19	1556	36	1522	61	5.7
ML016A-73	445483	59	0.09572	0.00098	3.27925	0.15426	0.24846	0.01141	0.976	no	1542	19	1476	36	1431	59	8.1
ML016A-74	755494	45	0.18806	0.00190	12.49144	0.58409	0.48174	0.02199	0.976	no	2725	17	2642	43	2535	95	8.4
ML016A-75	762655	50	0.13224	0.00134	6.71227	0.31190	0.36814	0.01670	0.976	no	2128	18	2074	40	2021	78	5.9
ML016A-76	581958	51	0.15786	0.00210	9.14393	0.47663	0.42010	0.02117	0.967	no	2433	22	2353	47	2261	95	8.4
ML016A-79	89013	48	0.09296	0.00105	3.03791	0.14251	0.23702	0.01079	0.970	no	1487	21	1417	35	1371	56	8.6
ML016A-80	83478	59	0.08661	0.00099	2.52424	0.12066	0.21139	0.00981	0.971	no	1352	22	1279	34	1236	52	9.4
ML016A-81	369556	169	0.17815	0.00184	11.58691	0.56959	0.47172	0.02267	0.978	no	2636	17	2572	45	2491	99	6.6

ML016A British Grid NY 15564 31567

Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML016A-85	204428	234	0.06255	0.00066	0.89183	0.03125	0.10340	0.00346	0.954	no	693	22	647	17	634	20	8.9
ML016A-86	131908	128	0.20623	0.00218	14.66486	0.67285	0.51574	0.02303	0.973	no	2876	17	2794	43	2681	97	8.3
ML016A-87	180169	164	0.13024	0.00133	6.48912	0.30654	0.36135	0.01667	0.976	no	2101	18	2044	41	1989	78	6.2
ML016A-90	110050	123	0.06027	0.00071	0.75969	0.03177	0.09142	0.00367	0.960	no	613	25	574	18	564	22	8.4
ML016A-92	58570	130	0.05920	0.00072	0.68615	0.02334	0.08405	0.00267	0.934	no	575	26	530	14	520	16	9.8
ML016A-95	35410	110	0.06114	0.00088	0.79759	0.03441	0.09461	0.00385	0.943	no	644	31	595	19	583	23	10.0
ML016A-97	525817	105	0.07834	0.00081	1.92139	0.09004	0.17789	0.00813	0.975	no	1155	20	1089	31	1055	44	9.4
ML016A-98	487421	62	0.10858	0.00111	4.39976	0.20786	0.29388	0.01356	0.976	no	1776	18	1712	38	1661	67	7.3
ML016A-100	777854	49	0.11012	0.00112	4.52658	0.20635	0.29814	0.01325	0.975	no	1801	18	1736	37	1682	65	7.5
ML016A-101	287623	54	0.11021	0.00113	4.49910	0.20801	0.29609	0.01335	0.975	no	1803	19	1731	38	1672	66	8.2
ML016A-102	397121	59	0.09981	0.00102	3.60616	0.17308	0.26205	0.01229	0.977	no	1620	19	1551	37	1500	62	8.3
ML016A-104	150987	28	0.10684	0.00113	4.22135	0.19406	0.28656	0.01282	0.973	no	1746	19	1678	37	1624	64	7.9
ML016A-105	112459	93	0.09423	0.00103	3.14971	0.14705	0.24243	0.01100	0.972	no	1513	21	1445	35	1399	57	8.3
ML016A-106	219796	24	0.05922	0.00063	0.69302	0.02409	0.08488	0.00281	0.952	no	575	23	535	14	525	17	9.0
ML016A-107	109578	7	0.06023	0.00065	0.75367	0.02995	0.09076	0.00347	0.962	no	612	23	570	17	560	20	8.8
ML016A-108	22119	0	0.06078	0.00104	0.80870	0.03152	0.09651	0.00338	0.898	no	631	37	602	18	594	20	6.2
ML016A-111	125400	144	0.13035	0.00140	6.35414	0.29148	0.35356	0.01577	0.972	no	2103	19	2026	39	1952	75	8.3
ML016A-114	104452	159	0.10950	0.00115	4.42674	0.20522	0.29321	0.01324	0.974	no	1791	19	1717	38	1658	66	8.5
ML016A-116	289075	163	0.13240	0.00136	6.60258	0.33197	0.36168	0.01780	0.979	no	2130	18	2060	43	1990	84	7.6
ML016A-117	64687	184	0.09863	0.00114	3.49779	0.17393	0.25722	0.01244	0.973	no	1598	21	1527	39	1476	63	8.6
ML016A-120	125533	188	0.10629	0.00113	4.14346	0.20372	0.28273	0.01357	0.976	no	1737	19	1663	39	1605	68	8.6
ML016A-121	311938	120	0.08640	0.00090	2.52775	0.11877	0.21220	0.00972	0.975	no	1347	20	1280	34	1241	51	8.7
ML016A-122	128624	135	0.06034	0.00071	0.77112	0.02787	0.09269	0.00317	0.946	no	616	25	580	16	571	19	7.5
ML016A-123	1549838	163	0.17744	0.00183	11.47600	0.53791	0.46908	0.02145	0.976	no	2629	17	2563	43	2480	93	6.8
ML016A-124	328294	176	0.09468	0.00107	3.16055	0.15141	0.24211	0.01127	0.972	no	1522	21	1448	36	1398	58	9.1
ML016A-125	447165	158	0.08274	0.00085	2.29888	0.10861	0.20152	0.00929	0.976	no	1263	20	1212	33	1183	50	6.9
ML016A-126	1191618	186	0.20193	0.00205	14.33431	0.67315	0.51485	0.02360	0.976	no	2842	16	2772	44	2677	100	7.1
ML016A-127	382621	197	0.08169	0.00087	2.18914	0.10059	0.19436	0.00868	0.972	no	1238	21	1178	32	1145	47	8.2
ML016A-128	840224	174	0.18921	0.00192	12.58385	0.58140	0.48236	0.02174	0.976	no	2735	17	2649	43	2538	94	8.7
ML016A-130	188973	142	0.13127	0.00135	6.49629	0.29623	0.35891	0.01594	0.974	no	2115	18	2045	39	1977	75	7.6
ML016A-132	675411	149	0.18419	0.00203	11.85688	0.58118	0.46688	0.02230	0.974	no	2691	18	2593	45	2470	97	9.9
ML016A-133	429849	119	0.11392	0.00119	4.87832	0.22368	0.31059	0.01387	0.974	no	1863	19	1799	38	1744	68	7.3
ML016A-134	397163	129	0.07810	0.00081	1.92084	0.08958	0.17837	0.00811	0.975	no	1149	21	1088	31	1058	44	8.6
ML016A-139	237291	160	0.13060	0.00133	6.57766	0.31575	0.36528	0.01713	0.977	no	2106	18	2056	41	2007	80	5.5
ML016A-143	443355	98	0.18038	0.00184	11.67724	0.54531	0.46952	0.02140	0.976	no	2656	17	2579	43	2481	93	7.9
ML016A-144	59307	72	0.06168	0.00079	0.83196	0.02844	0.09783	0.00310	0.928	no	663	27	615	16	602	18	9.7
Discordance >10% or <-10%																	
ML016A-4	24513	99	0.11638	0.00157	4.56806	0.22219	0.28467	0.01330	0.961	no	1901	24	1743	40	1615	66	17.0
ML016A-6	12928	0	0.05704	0.00123	0.74196	0.02907	0.09435	0.00309	0.835	no	493	47	564	17	581	18	-18.7
ML016A-8	7391	0	0.05773	0.00223	0.81116	0.04396	0.10190	0.00388	0.703	no	520	82	603	24	626	23	-21.4
ML016A-10	18770	2	0.05786	0.00108	0.76425	0.03149	0.09580	0.00352	0.892	no	525	40	576	18	590	21	-13.0
ML016A-13	92151	96	0.05924	0.00072	0.67986	0.02274	0.08323	0.00260	0.933	no	576	26	527	14	515	15	10.9
ML016A-15	38217	93	0.06137	0.00084	0.80477	0.03208	0.09510	0.00356	0.940	no	652	29	600	18	586	21	10.7
ML016A-16	159952	92	0.05874	0.00065	0.64012	0.02356	0.07903	0.00277	0.953	no	558	24	502	14	490	17	12.5
ML016A-20	55102	127	0.06180	0.00082	0.80691	0.02794	0.09470	0.00303	0.924	no	667	28	601	16	583	18	13.2
ML016A-21	57037	129	0.06113	0.00070	0.79213	0.02803	0.09398	0.00315	0.946	no	644	24	592	16	579	19	10.5
ML016A-26	594917	164	0.22554	0.00231	16.03866	0.75495	0.51576	0.02370	0.976	no	3021	16	2879	44	2681	100	13.7
ML016A-31	69957	174	0.07377	0.00113	1.57469	0.07768	0.15482	0.00726	0.951	no	1035	31	960	30	928	40	11.1
ML016A-42	27442	60	0.06277	0.00098	0.84513	0.03147	0.09765	0.00330	0.907	no	700	33	622	17	601	19	14.9
ML016A-47	71470	28	0.06331	0.00112	0.85098	0.03718	0.09749	0.00390	0.915	no	719	37	625	20	600	23	17.3
ML016A-48	117681	46	0.06609	0.00112	0.88649	0.03434	0.09729	0.00339	0.900	no	809	35	644	18	599	20	27.2
ML016A-52	42621	41	0.06262	0.00096	0.84739	0.03420	0.09814	0.00366	0.925	no	695	32	623	19	603	21	13.9
ML016A-54	651824	190	0.12705	0.00139	5.65139	0.30144	0.32261	0.01684	0.979	no	2058	19	1924	45	1802	82	14.2
ML016A-55	34091	166	0.06304	0.00146	0.83495	0.03568	0.09606	0.00345	0.839	no	710	49	616	20	591	20	17.4
ML016A-59	44822	38	0.06193	0.00098	0.80387	0.03020	0.09414	0.00321	0.907	no	672	34	599	17	580	19	14.3
ML016A-71	77165	181	0.05968	0.00084	0.70065	0.02565	0.08515	0.00288	0.924	no	592	30	539	15	527	17	11.4
ML016A-77	36180	41	0.06099	0.00085	0.69197	0.02585	0.08228	0.00285	0.927	no	639	30	534	15	510	17	21.0
ML016A-78	69153	62	0.06171	0.00088	0.78595	0.02865	0.09238	0.00310	0.920	no	664	30	589	16	570	18	14.9
ML016A-82	42953	194	0.06137	0.00083	0.79484	0.02763	0.09393	0.00301	0.922	no	652	29	594	16	579	18	11.8
ML016A-83	482062	227	0.09418	0.00157	2.54645	0.14613	0.19609	0.01077	0.957	no	1512	31	1285	41	1154	58	25.8
ML016A-84	245420	229	0.09705	0.00104	3.31146	0.15787	0.24747	0.01150	0.974	no	1568	20	1484	37	1425	59	10.1

ML016A British Grid NY 15564 31567

Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML016A-88	2265986	179	0.21860	0.00222	15.23376	0.73083	0.50542	0.02370	0.977	no	2970	16	2830	45	2637	101	13.7
ML016A-89	29221	160	0.06585	0.00158	0.78138	0.03311	0.08606	0.00301	0.825	no	802	49	586	19	532	18	35.0
ML016A-91	91050	147	0.06123	0.00069	0.79024	0.02804	0.09360	0.00315	0.948	no	647	24	591	16	577	19	11.4
ML016A-93	59149	163	0.06114	0.00075	0.79343	0.02911	0.09411	0.00325	0.942	no	644	26	593	16	580	19	10.5
ML016A-94	152916	140	0.06118	0.00071	0.77361	0.02628	0.09171	0.00293	0.939	no	646	25	582	15	566	17	12.9
ML016A-96	351209	296	0.08823	0.00113	2.33378	0.11068	0.19184	0.00876	0.963	no	1388	24	1223	33	1131	47	20.1
ML016A-99	809850	50	0.24213	0.00244	18.59253	0.93997	0.55692	0.02759	0.980	no	3134	16	3021	48	2854	113	11.0
ML016A-103	65194	27	0.05963	0.00073	0.69231	0.02315	0.08421	0.00262	0.930	no	590	26	534	14	521	16	12.2
ML016A-109	146841	158	0.06140	0.00071	0.77697	0.02829	0.09178	0.00317	0.948	no	653	25	584	16	566	19	14.0
ML016A-110	278709	182	0.06441	0.00092	0.96500	0.03498	0.10866	0.00362	0.919	no	755	30	686	18	665	21	12.6
ML016A-112	66880	149	0.05986	0.00079	0.70844	0.02491	0.08584	0.00280	0.927	no	598	28	544	15	531	17	11.8
ML016A-113	95950	157	0.06154	0.00070	0.79944	0.02688	0.09421	0.00298	0.942	no	658	24	597	15	580	18	12.4
ML016A-115	129144	167	0.08657	0.00095	2.49581	0.11420	0.20911	0.00929	0.971	no	1351	21	1271	33	1224	49	10.3
ML016A-118	54537	193	0.06347	0.00135	0.82338	0.03306	0.09409	0.00321	0.849	no	724	44	610	18	580	19	20.8
ML016A-119	109500	160	0.08232	0.00092	2.15845	0.09971	0.19016	0.00853	0.970	no	1253	22	1168	32	1122	46	11.4
ML016A-129	45469	139	0.06140	0.00098	0.80297	0.03701	0.09485	0.00410	0.938	no	653	34	599	21	584	24	11.1
ML016A-131	191514	146	0.06047	0.00077	0.67826	0.02594	0.08135	0.00293	0.943	no	620	27	526	16	504	17	19.5
ML016A-135	118430	122	0.05940	0.00071	0.68206	0.02337	0.08328	0.00268	0.938	no	582	26	528	14	516	16	11.8
ML016A-136	177013	135	0.06737	0.00167	1.02940	0.05382	0.11082	0.00511	0.881	no	849	51	719	27	678	30	21.3
ML016A-137	797420	98	0.12351	0.00125	5.53592	0.25616	0.32508	0.01468	0.976	no	2008	18	1906	39	1815	71	11.0
ML016A-138	43074	153	0.06487	0.00122	0.81514	0.03260	0.09114	0.00322	0.883	no	770	39	605	18	562	19	28.2
ML016A-140	67171	111	0.06140	0.00080	0.78473	0.02767	0.09270	0.00304	0.930	no	653	28	588	16	571	18	13.1
ML016A-141	79484	113	0.06497	0.00175	0.84606	0.03627	0.09445	0.00315	0.778	no	773	56	622	20	582	19	25.9
ML016A-142	210294	93	0.06025	0.00065	0.74441	0.02609	0.08961	0.00299	0.952	no	613	23	565	15	553	18	10.1

ML016A

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH94-15-1		0.110653	0.000108	0.375625	0.002542
LH94-15-2		0.110556	0.000120	0.374333	0.002850
LH94-15-3		0.110375	0.000108	0.370324	0.003736
LH94-15-4		0.110501	0.000118	0.368203	0.003416
LH94-15-5		0.110652	0.000135	0.372989	0.002545
LH94-15-6	*	0.110787	0.000121	0.387286	0.002454
LH95-15-07		0.110803	0.000129	0.369489	0.003223
LH94-15-08		0.111080	0.000120	0.362859	0.002132
LH94-15-9		0.111170	0.000067	0.360187	0.001795
LH94-15-10		0.111203	0.000097	0.365153	0.002071
LH94-15-11		0.110903	0.000070	0.359816	0.001740
LH94-15-12		0.111076	0.000111	0.359084	0.001794
LH94-15-13		0.111225	0.000130	0.347452	0.002154
LH94-15-14		0.111112	0.000078	0.356946	0.001917
LH94-15-16		0.111389	0.000092	0.354440	0.001398
LH94-15-17		0.111612	0.000085	0.351577	0.003633
LH94-15-18		0.111154	0.000168	0.357987	0.001901
LH94-15-19		0.111555	0.000134	0.361413	0.001449
LH94-15-20		0.111517	0.000116	0.353943	0.002133
LH94-15-21		0.111446	0.000144	0.357872	0.001490
LH94-15-22		0.110948	0.000148	0.350210	0.001445
LH94-15-23		0.111153	0.000117	0.349088	0.002032
LH94-15-24		0.111021	0.000130	0.355796	0.002117
LH94-15-25		0.111389	0.000140	0.353775	0.001894
LH94-15-26		0.111314	0.000105	0.357624	0.001588
LH94-15-27		0.111699	0.000135	0.361452	0.001509
LH94-15-28		0.111322	0.000121	0.352936	0.001591
LH94-15-29		0.111542	0.000134	0.357257	0.001640
GJ1-32-1		0.059965	0.000116	0.107528	0.001244
GJ1-32-2		0.059836	0.000137	0.107987	0.001167

Isotopic ratios

Apparent age summary

sample name	206Pb (cps)	204Pb (cps)	207Pb/206Pb	2 s	207Pb/235U	2 s	206Pb/238U	2 s	ρ	Com Pb corrected?	age (Ma) 207Pb*/206Pb*	error (Ma) 2 s	age (Ma) 207Pb*/235U	error (Ma) 2 s	age (Ma) 206Pb*/238U	error (Ma) 2 s	discordance %
Better than $\pm 10\%$ discordant																	
ML018A-1 40um	263410	31	0.16737	0.00307	10.79758	0.43289	0.46789	0.01668	0.889	no	2532	30	2506	37	2474	73	2.7
ML018A-2 40um	15962	40	0.05898	0.00148	0.71176	0.03627	0.08752	0.00388	0.870	no	566	54	546	21	541	23	4.7
ML018A-3 40um	119961	20	0.11081	0.00191	4.75574	0.18345	0.31128	0.01074	0.894	no	1813	31	1777	32	1747	53	4.1
ML018A-4 40um	108007	71	0.09485	0.00170	3.26969	0.13638	0.25001	0.00942	0.903	no	1525	33	1474	32	1439	48	6.3
ML018A-5 40um	268263	23	0.10066	0.00174	3.81793	0.15943	0.27508	0.01046	0.910	no	1636	32	1597	33	1567	53	4.8
ML018A-7 40um	91388	49	0.17982	0.00310	12.28544	0.47952	0.49551	0.01735	0.897	no	2651	28	2626	36	2594	74	2.6
ML018A-8 40um	226150	47	0.18710	0.00319	13.29701	0.61079	0.51543	0.02198	0.928	no	2717	28	2701	42	2680	93	1.7
ML018A-9 40um	581677	44	0.17333	0.00299	11.09079	0.42469	0.46408	0.01587	0.893	no	2590	28	2531	35	2458	70	6.1
ML018A-10 40um	88805	70	0.11054	0.00192	4.85898	0.19859	0.31882	0.01180	0.905	no	1808	31	1795	34	1784	57	1.5
ML018A-11 40um	174233	58	0.10766	0.00188	4.48171	0.18717	0.30192	0.01145	0.908	no	1760	32	1728	34	1701	56	3.8
ML018A-12 40um	472358	71	0.16417	0.00296	10.06078	0.44679	0.44446	0.01804	0.914	no	2499	30	2440	40	2371	80	6.1
ML018A-13 40um	365839	91	0.19071	0.00324	13.43414	0.59150	0.51090	0.02075	0.922	no	2748	28	2711	41	2660	88	3.9
ML018A-14 40um	129679	85	0.12212	0.00213	5.87071	0.25692	0.34865	0.01400	0.917	no	1987	31	1957	37	1928	67	3.5
ML018A-15 40um	436028	87	0.12175	0.00207	5.88625	0.22704	0.35066	0.01215	0.898	no	1982	30	1959	33	1938	58	2.6
ML018A-16 40um	468465	100	0.12761	0.00219	6.16145	0.24227	0.35018	0.01239	0.900	no	2065	30	1999	34	1935	59	7.3
ML018A-17 40um	140715	74	0.07316	0.00128	1.66190	0.07060	0.16475	0.00638	0.911	no	1018	35	994	27	983	35	3.7
ML018A-18 40um	381568	88	0.20791	0.00354	15.58450	0.70226	0.54364	0.02268	0.926	no	2889	27	2852	42	2799	94	3.9
ML018A-19 40um	493249	68	0.17506	0.00300	11.49183	0.45157	0.47612	0.01684	0.900	no	2607	28	2564	36	2510	73	4.5
ML018A-20 40um	64030	108	0.13020	0.00224	7.01217	0.26303	0.39059	0.01301	0.888	no	2101	30	2113	33	2126	60	-1.4
ML018A-21 40um	5404	110	0.05541	0.00388	0.57233	0.04514	0.07492	0.00273	0.462	no	429	149	460	29	466	16	-8.9
ML018A-22 40um	45901	92	0.05621	0.00106	0.55918	0.02187	0.07216	0.00247	0.877	no	460	41	451	14	449	15	2.6
ML018A-23 40um	56084	97	0.05708	0.00113	0.57771	0.02619	0.07341	0.00299	0.900	no	495	43	463	17	457	18	8.0
ML018A-24 40um	34926	95	0.05566	0.00121	0.56138	0.02410	0.07315	0.00270	0.861	no	439	48	452	16	455	16	-3.8
ML018A-25 40um	167672	2	0.12594	0.00218	6.49668	0.27089	0.37414	0.01420	0.910	no	2042	30	2045	36	2049	66	-0.4
ML018A-26 40um	120091	1	0.10353	0.00179	4.14310	0.17369	0.29024	0.01109	0.911	no	1688	32	1663	34	1643	55	3.1
ML018A-27 40um	17665	0	0.05611	0.00112	0.58131	0.02212	0.07514	0.00244	0.852	no	457	44	465	14	467	15	-2.4
ML018A-30 40um	47840	12	0.05540	0.00110	0.56057	0.02313	0.07339	0.00266	0.877	no	428	44	452	15	457	16	-6.8
ML018A-32 40um	52303	38	0.05584	0.00121	0.53440	0.02603	0.06941	0.00303	0.895	no	446	48	435	17	433	18	3.1
ML018A-37 40um	79529	55	0.05487	0.00103	0.52393	0.02125	0.06926	0.00249	0.887	no	407	41	428	14	432	15	-6.3
ML018A-38 40um	329664	57	0.17570	0.00306	11.71212	0.46966	0.48346	0.01746	0.901	no	2613	29	2582	37	2542	75	3.3
ML018A-42 40um	35750	56	0.05441	0.00112	0.51126	0.02206	0.06815	0.00258	0.879	no	388	46	419	15	425	16	-9.8
ML018A-44 40um	515412	70	0.19900	0.00339	13.83801	0.61378	0.50434	0.02065	0.923	no	2818	28	2739	41	2632	88	8.0
ML018A-51 40um	42835	68	0.05463	0.00102	0.50170	0.02132	0.06660	0.00254	0.899	no	397	41	413	14	416	15	-4.8
ML018A-53 40um	20789	82	0.05663	0.00123	0.63179	0.02602	0.08091	0.00283	0.849	no	477	47	497	16	502	17	-5.3
ML018A-55 40um	314600	91	0.17853	0.00309	11.64400	0.45522	0.47302	0.01658	0.896	no	2639	28	2576	36	2497	72	6.5
ML018A-59 40um	38809	87	0.05855	0.00110	0.73695	0.02970	0.09128	0.00325	0.884	no	550	41	561	17	563	19	-2.4
ML018A-62 40um	73766	113	0.05863	0.00108	0.66770	0.02666	0.08260	0.00293	0.887	no	553	40	519	16	512	17	7.8
ML018A-64 40um	56403	115	0.05829	0.00111	0.65695	0.02560	0.08175	0.00278	0.873	no	541	41	513	16	507	17	6.5
ML018A-65 40um	55160	125	0.05753	0.00107	0.67903	0.02727	0.08560	0.00305	0.887	no	512	40	526	16	529	18	-3.5
ML018A-67 40um	50059	106	0.05460	0.00104	0.50516	0.02129	0.06710	0.00252	0.892	no	396	42	415	14	419	15	-6.0
ML018A-68 40um	47813	122	0.05491	0.00103	0.53979	0.02120	0.07130	0.00246	0.878	no	409	41	438	14	444	15	-9.0
ML018A-69 40um	42798	81	0.05462	0.00112	0.52124	0.02171	0.06922	0.00251	0.870	no	397	45	426	14	431	15	-9.1
ML018A-71 40um	43406	122	0.05495	0.00103	0.54426	0.02389	0.07184	0.00285	0.904	no	410	42	441	16	447	17	-9.4
ML018A-72 40um	85728	145	0.05718	0.00104	0.65448	0.02541	0.08302	0.00284	0.882	no	498	40	511	15	514	17	-3.3
ML018A-73 40um	91408	175	0.06168	0.00112	0.91222	0.03687	0.10726	0.00388	0.894	no	663	38	658	19	657	23	1.0
ML018A-74 40um	33312	169	0.05583	0.00126	0.56778	0.02603	0.07376	0.00295	0.871	no	446	49	457	17	459	18	-3.1
ML018A-76 40um	71352	129	0.05539	0.00098	0.54532	0.02117	0.07140	0.00247	0.890	no	428	39	442	14	445	15	-4.0
ML018A-77 40um	44250	117	0.05862	0.00113	0.79559	0.02997	0.09844	0.00318	0.859	no	553	42	594	17	605	19	-9.9
ML018A-78 40um	21899	126	0.05514	0.00129	0.55594	0.02326	0.07312	0.00254	0.829	no	418	51	449	15	455	15	-9.1
ML018A-79 40um	48736	131	0.05619	0.00104	0.56613	0.02376	0.07307	0.00275	0.897	no	460	41	456	15	455	16	1.2
ML018A-86 40um	43765	148	0.09673	0.00176	3.63698	0.14072	0.27270	0.00931	0.882	no	1562	34	1558	30	1554	47	0.5
ML018A-88 40um	21467	177	0.05560	0.00126	0.54166	0.02326	0.07066	0.00258	0.850	no	436	50	440	15	440	16	-0.9
ML018A-89 40um	173963	156	0.10930	0.00188	4.63094	0.18384	0.30728	0.01100	0.902	no	1788	31	1755	33	1727	54	3.9
ML018A-90 40um	62015	109	0.06140	0.00113	0.89549	0.03820	0.10577	0.00407	0.902	no	653	39	649	20	648	24	0.8
ML018A-91 40um	41058	111	0.05917	0.00107	0.79210	0.03287	0.09709	0.00362	0.900	no	573	39	592	18	597	21	-4.4
ML018A-92 40um	45662	129	0.05500	0.00106	0.52136	0.02053	0.06875	0.00236	0.871	no	412	43	426	14	429	14	-4.1
ML018A-93 40um	76526	141	0.07948	0.00155	2.09208	0.08523	0.19091	0.00683	0.879	no	1184	38	1146	28	1126	37	5.3
ML018A-94 40um	50753	122	0.14404	0.00251	8.24084	0.31706	0.41494	0.01424	0.892	no	2276	30	2258	34	2237	65	2.0
ML018A-96 40um	49404	117	0.12842	0.00228	6.60806	0.28610	0.37321	0.01473	0.912	no	2076	31	2060	37	2044	69	1.8
ML018A-97 40um	44019	134	0.09176	0.00162	3.18756	0.12836	0.25195	0.00912	0.898	no	1462	33	1454	31	1449	47	1.1

ML018A British Grid SD22997 78367

Isotopic ratios				Apparent age summary													
sample name	206Pb (cps)	204Pb (cps)	207Pb/206Pb	2 s	207Pb/235U	2 s	206Pb/238U	2 s	ρ	Com Pb corrected?	age (Ma) 207Pb*/206Pb*	error (Ma) 2 s	age (Ma) 207Pb*/235U	error (Ma) 2 s	age (Ma) 206Pb*/238U	error (Ma) 2 s	discordance %
ML018A-99 40um	62976	142	0.05598	0.00116	0.53665	0.02582	0.06953	0.00302	0.902	no	452	45	436	17	433	18	4.2
ML018A-103 40um	21541	138	0.05521	0.00121	0.53128	0.02428	0.06979	0.00280	0.877	no	421	48	433	16	435	17	-3.4
ML018A-106 40um	47279	140	0.05461	0.00105	0.50467	0.02068	0.06702	0.00243	0.884	no	396	42	415	14	418	15	-5.6
ML018A-107 40um	30013	139	0.05454	0.00110	0.51003	0.02149	0.06783	0.00251	0.879	no	393	44	418	14	423	15	-7.8
ML018A-108 40um	36510	142	0.06314	0.00125	0.99444	0.03961	0.11423	0.00395	0.868	no	713	42	701	20	697	23	2.3
Discordance >10% or <-10%																	
ML018A-83 40um	39561	131	0.05772	0.00154	0.58617	0.02966	0.07366	0.00317	0.851	no	519	57	468	19	458	19	12.2
ML018A-80 40um	33601	112	0.05456	0.00109	0.54890	0.02098	0.07297	0.00238	0.852	no	394	44	444	14	454	14	-15.8
ML018A-82 40um	42245	159	0.05738	0.00222	0.53177	0.02888	0.06721	0.00256	0.702	no	506	83	433	19	419	15	17.7
ML018A-33 40um	27525	15	0.05414	0.00101	0.54326	0.02186	0.07277	0.00259	0.886	no	377	41	441	14	453	16	-20.8
ML018A-41 40um	29506	65	0.05446	0.00109	0.53142	0.02420	0.07078	0.00290	0.899	no	390	44	433	16	441	17	-13.5
ML018A-84 40um	7504	135	0.05200	0.00151	0.52621	0.02683	0.07339	0.00308	0.823	no	285	65	429	18	457	18	-62.1
ML018A-56 40um	14959	89	0.05360	0.00159	0.53283	0.02551	0.07210	0.00271	0.784	no	354	66	434	17	449	16	-27.6
ML018A-34 40um	31325	92	0.07852	0.00404	0.81210	0.04926	0.07501	0.00242	0.531	no	1160	99	604	27	466	14	62.0
ML018A-70 40um	55565	125	0.05659	0.00158	0.54458	0.03954	0.06980	0.00468	0.923	no	475	60	441	26	435	28	8.8
ML018A-36 40um	32882	70	0.07967	0.00305	0.82493	0.04181	0.07510	0.00250	0.657	no	1189	74	611	23	467	15	62.9
ML018A-29 40um	30420	8	0.05464	0.00122	0.56815	0.02520	0.07542	0.00289	0.864	no	397	49	457	16	469	17	-18.6
ML018A-40 40um	4296	57	0.04970	0.00211	0.74413	0.04730	0.10858	0.00514	0.744	no	181	96	565	27	665	30	-281.0
ML018A-63 40um	37068	101	0.05435	0.00107	0.50792	0.02026	0.06778	0.00235	0.869	no	385	44	417	14	423	14	-10.0
ML018A-43 40um	19940	304	0.22545	0.02451	2.28443	0.27034	0.07349	0.00343	0.395	no	3020	165	1207	80	457	21	87.7
ML018A-66 40um	34803	102	0.05427	0.00102	0.52031	0.02007	0.06954	0.00234	0.873	no	382	42	425	13	433	14	-13.9
ML018A-47 40um	15463	68	0.06243	0.00183	0.87592	0.04880	0.10175	0.00483	0.851	no	689	61	639	26	625	28	9.8
ML018A-46 40um	199765	67	0.19739	0.00337	13.26905	0.50135	0.48754	0.01644	0.892	no	2805	28	2699	35	2560	71	10.6
ML018A-48 40um	43828	51	0.05427	0.00116	0.53747	0.02383	0.07182	0.00279	0.876	no	382	47	437	16	447	17	-17.5
ML018A-49 40um	9557	57	0.04997	0.00153	0.48156	0.02451	0.06989	0.00285	0.800	no	194	69	399	17	435	17	-129.1
ML018A-6 40um	585756	235	0.18032	0.00332	11.24232	0.60175	0.45218	0.02273	0.939	no	2656	30	2543	49	2405	100	11.3
ML018A-52 40um	4363	75	0.04788	0.00292	0.45711	0.03324	0.06924	0.00275	0.546	no	93	138	382	23	432	17	-374.2
ML018A-54 40um	8260	84	0.05871	0.00243	0.53063	0.03063	0.06556	0.00264	0.698	no	556	88	432	20	409	16	27.3
ML018A-39 40um	23892	54	0.05415	0.00116	0.53502	0.02292	0.07166	0.00265	0.865	no	377	48	435	15	446	16	-18.9
ML018A-57 40um	37743	105	0.05902	0.00155	0.50374	0.02392	0.06191	0.00245	0.833	no	568	56	414	16	387	15	32.8
ML018A-58 40um	13011	106	0.06926	0.00258	0.59618	0.03208	0.06243	0.00242	0.721	no	907	75	475	20	390	15	58.7
ML018A-28 40um	3247	1	0.05945	0.00542	0.62017	0.06179	0.07565	0.00305	0.404	no	584	186	490	38	470	18	20.2
ML018A-61 40um	19346	83	0.05302	0.00118	0.50513	0.01991	0.06909	0.00225	0.826	no	330	50	415	13	431	14	-31.6
ML018A-81 40um	19640	124	0.05498	0.00113	0.55064	0.02233	0.07264	0.00254	0.863	no	412	45	445	15	452	15	-10.2
ML018A-101 40um	161803	130	0.12846	0.00220	6.05239	0.25535	0.34171	0.01317	0.914	no	2077	30	1983	36	1895	63	10.1
ML018A-75 40um	24179	172	0.07937	0.00177	0.96194	0.04495	0.08790	0.00361	0.878	no	1181	44	684	23	543	21	56.3
ML018A-45 40um	17002	54	0.05692	0.00140	0.70483	0.03196	0.08981	0.00342	0.840	no	488	53	542	19	554	20	-14.1
ML018A-60 40um	59673	80	0.05713	0.00126	0.51143	0.02178	0.06493	0.00237	0.856	no	496	48	419	15	406	14	18.9
ML018A-35 40um	71883	25	0.05691	0.00120	0.53643	0.02234	0.06837	0.00245	0.862	no	488	46	436	15	426	15	13.1
ML018A-31 40um	12446	6	0.05232	0.00126	0.51307	0.02247	0.07112	0.00260	0.835	no	300	54	421	15	443	16	-49.5
ML018A-85 40um	18323	162	0.05291	0.00115	0.52664	0.02211	0.07219	0.00259	0.856	no	325	49	430	15	449	16	-39.7
ML018A-87 40um	70090	271	0.07952	0.00389	0.70730	0.04396	0.06451	0.00247	0.616	no	1185	94	543	26	403	15	68.0
ML018A-95 40um	78083	127	0.05968	0.00123	0.54707	0.02199	0.06648	0.00230	0.860	no	592	44	443	14	415	14	30.9
ML018A-98 40um	6068	135	0.05025	0.00196	0.52341	0.02694	0.07554	0.00253	0.651	no	207	88	427	18	469	15	-131.9
ML018A-100 40um	35032	150	0.05801	0.00140	0.52382	0.02541	0.06549	0.00276	0.868	no	530	52	428	17	409	17	23.6
ML018A-50 40um	58879	75	0.05555	0.00104	0.48539	0.02204	0.06337	0.00262	0.911	no	434	41	402	15	396	16	9.1
ML018A-102 40um	51223	279	0.09029	0.00728	0.92017	0.08551	0.07391	0.00342	0.498	no	1432	146	662	44	460	20	70.3
ML018A-104 40um	57840	140	0.06008	0.00113	0.63541	0.02730	0.07670	0.00297	0.900	no	606	40	499	17	476	18	22.2
ML018A-105 40um	140751	135	0.12429	0.00214	5.60191	0.20855	0.32689	0.01079	0.887	no	2019	30	1916	32	1823	52	11.1

ML018A
Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	207Pb/206Pb	1 se	206Pb/238U	1 se
LH94-15-1 40um	*	0.114880	0.000191	0.362510	0.002185
LH94-15-2 40um		0.114225	0.000135	0.359847	0.001764
LH94-15-3 40um		0.114194	0.000153	0.354917	0.002418
LH94-15-4 40um		0.114201	0.000189	0.359073	0.001866
LH94-15-5 40um		0.114881	0.000147	0.357115	0.001989
LH94-15-6 40um		0.114455	0.000176	0.349598	0.002410

ML109A		British Grid SD 7816 7103								Apparent age summary							
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML109A-1A	139583	4	0.08762	0.00092	2.87281	0.16837	0.23781	0.01371	0.984	no	1374	20	1375	43	1375	71	-0.1
ML109A-2A	83731	1	0.07828	0.00103	2.09031	0.12439	0.19368	0.01124	0.975	no	1154	26	1146	40	1141	60	1.2
ML109A-3A	139621	0	0.10081	0.00111	3.95880	0.22614	0.28482	0.01596	0.981	no	1639	20	1626	45	1616	80	1.6
ML109A-4A	286706	0	0.10008	0.00105	3.95144	0.22449	0.28635	0.01599	0.983	no	1626	19	1624	45	1623	80	0.2
ML109A-5A	72214	3	0.08986	0.00114	3.04473	0.17389	0.24573	0.01368	0.975	no	1423	24	1419	43	1416	70	0.5
ML109A-6A	400155	1	0.10355	0.00106	4.36400	0.25013	0.30565	0.01724	0.984	no	1689	19	1706	46	1719	85	-2.1
ML109A-8A	206702	0	0.09230	0.00098	3.32586	0.18050	0.26134	0.01391	0.980	no	1474	20	1487	42	1497	71	-1.8
ML109A-9A	66034	1	0.07955	0.00107	2.12370	0.13599	0.19363	0.01212	0.978	no	1186	26	1157	43	1141	65	4.1
ML109A-10A	63866	0	0.05541	0.00179	0.51563	0.04426	0.06749	0.00536	0.926	no	429	71	422	29	421	32	1.9
ML109A-11A	137569	45	0.09865	0.00106	3.54012	0.25300	0.26027	0.01839	0.989	no	1599	20	1536	55	1491	93	7.5
ML109A-12A	50505	51	0.07690	0.00112	1.86255	0.13239	0.17566	0.01222	0.979	no	1119	29	1068	46	1043	67	7.3
ML109A-13A	73708	54	0.08576	0.00100	2.53340	0.15902	0.21425	0.01321	0.983	no	1333	22	1282	45	1251	70	6.7
ML109A-14A	68157	59	0.07197	0.00097	1.55040	0.10848	0.15623	0.01073	0.981	no	985	27	951	42	936	60	5.4
ML109A-15A	186316	58	0.07342	0.00078	1.59566	0.11722	0.15762	0.01146	0.989	no	1026	21	969	45	944	63	8.6
ML109A-19A	461602	78	0.06075	0.00189	0.78501	0.07697	0.09373	0.00872	0.948	no	630	66	588	43	578	51	8.7
ML109A-21	506658	1614	0.05598	0.00357	0.56369	0.06291	0.07303	0.00669	0.820	yes	451	136	454	40	454	40	-0.7
ML109A-24A	162825	26	0.09648	0.00106	3.29185	0.28436	0.24747	0.02120	0.992	no	1557	21	1479	65	1425	109	9.4
ML109A-25A	80131	34	0.07659	0.00085	1.80125	0.11423	0.17057	0.01065	0.984	no	1111	22	1046	41	1015	58	9.3
ML109A-27A	293501	94	0.07618	0.00079	1.82078	0.11451	0.17335	0.01075	0.986	no	1100	21	1053	40	1031	59	6.8
ML109A-28A	41494	69	0.06903	0.00109	1.30270	0.08377	0.13687	0.00853	0.970	no	900	32	847	36	827	48	8.6
ML109A-29A	151202	100	0.05659	0.00179	0.53848	0.04294	0.06901	0.00505	0.918	no	476	68	437	28	430	30	9.8
ML109A-30A	123457	77	0.09370	0.00100	3.14438	0.20701	0.24338	0.01581	0.987	no	1502	20	1444	49	1404	81	7.3
ML109A-32A	211480	118	0.07783	0.00086	1.97167	0.15564	0.18373	0.01436	0.990	no	1143	22	1106	52	1087	78	5.3
ML109A-33A	64591	73	0.07728	0.00087	1.99277	0.17864	0.18702	0.01663	0.992	no	1128	22	1113	59	1105	90	2.2
ML109A-36A	44487	62	0.05424	0.00126	0.47952	0.03729	0.06412	0.00476	0.954	no	381	52	398	25	401	29	-5.3
ML109A-37A	173953	103	0.07076	0.00084	1.54163	0.12388	0.15802	0.01256	0.989	no	950	24	947	48	946	70	0.5
ML109A-38A	141232	118	0.10192	0.00105	3.85255	0.31222	0.27414	0.02204	0.992	no	1659	19	1604	63	1562	111	6.6
ML109A-39A	82436	121	0.09991	0.00121	3.75152	0.30230	0.27234	0.02170	0.989	no	1622	22	1582	63	1553	109	4.8
ML109A-40A	67623	120	0.05559	0.00119	0.54882	0.04591	0.07161	0.00579	0.967	no	436	47	444	30	446	35	-2.4
ML109A-41A	1309969	173	0.08372	0.00104	2.58554	0.24535	0.22399	0.02107	0.991	no	1286	24	1297	67	1303	110	-1.5
ML109A-43A	206005	116	0.08690	0.00095	2.80731	0.25456	0.23431	0.02109	0.993	no	1358	21	1357	66	1357	109	0.1
ML109A-44A	181662	135	0.07002	0.00077	1.46831	0.13844	0.15210	0.01424	0.993	no	929	23	917	55	913	79	1.9
ML109A-45A	30802	129	0.07153	0.00101	1.47016	0.14439	0.14906	0.01449	0.990	no	973	29	918	58	896	81	8.5
ML109A-46A	265943	137	0.09189	0.00097	3.24187	0.34152	0.25587	0.02682	0.995	no	1465	20	1467	79	1469	136	-0.3
ML109A-47A	125687	88	0.09354	0.00101	3.16926	0.26848	0.24574	0.02065	0.992	no	1499	20	1450	63	1416	106	6.1
ML109A-48A	151617	106	0.05677	0.00120	0.55150	0.05721	0.07046	0.00716	0.979	no	483	46	446	37	439	43	9.4
ML109A-50A	138737	107	0.09303	0.00117	3.10227	0.24611	0.24187	0.01895	0.987	no	1488	24	1433	59	1396	98	6.9
ML109A-51A	46295	143	0.07165	0.00116	1.48990	0.13160	0.15082	0.01310	0.983	no	976	33	926	52	906	73	7.7
ML109A-52A	157072	149	0.07478	0.00085	1.75176	0.14516	0.16991	0.01395	0.991	no	1062	23	1028	52	1012	76	5.2
ML109A-53A	65944	118	0.07046	0.00090	1.43500	0.12532	0.14772	0.01276	0.989	no	942	26	904	51	888	71	6.1
ML109A-55A	164773	142	0.08722	0.00091	2.76461	0.25138	0.22988	0.02076	0.993	no	1365	20	1346	66	1334	108	2.6
ML109A-57A	119058	158	0.11161	0.00121	4.71239	0.43551	0.30623	0.02810	0.993	no	1826	20	1769	75	1722	137	6.5
ML109A-58A	190473	188	0.07769	0.00085	2.01751	0.16546	0.18835	0.01531	0.991	no	1139	22	1121	54	1112	83	2.5
ML109A-59A	622380	214	0.07793	0.00079	1.97678	0.16957	0.18397	0.01567	0.993	no	1145	20	1108	56	1089	85	5.4
ML109A-60A	82318	182	0.07568	0.00086	1.84634	0.15126	0.17695	0.01436	0.990	no	1087	22	1062	53	1050	78	3.6
ml109a-61	61403	2	0.05462	0.00158	0.44721	0.04979	0.05938	0.00638	0.966	no	397	64	375	34	372	39	6.5
ML109A-62A	212976	36	0.07326	0.00106	1.62931	0.13393	0.16131	0.01305	0.984	no	1021	29	982	50	964	72	6.0
ML109A-63A	191942	6	0.09940	0.00108	3.57456	0.28726	0.26081	0.02077	0.991	no	1613	20	1544	62	1494	105	8.3
ML109A-64A	308877	1	0.08473	0.00089	2.38170	0.20211	0.20387	0.01717	0.992	no	1309	20	1237	59	1196	91	9.5
ML109A-65A	82003	6	0.05478	0.00128	0.53262	0.04526	0.07052	0.00576	0.962	no	403	51	434	30	439	35	-9.3
ML109A-66A	26897	0	0.06913	0.00356	1.31439	0.13473	0.13790	0.01222	0.865	no	903	103	852	57	833	69	8.3
ML109A-67A	78629	1	0.07089	0.00096	1.45793	0.11398	0.14915	0.01148	0.985	no	954	27	913	46	896	64	6.5
ML109A-68A	71265	2	0.06809	0.00108	1.31078	0.10059	0.13962	0.01048	0.978	no	871	33	850	43	843	59	3.5
ML109A-72A	74537	2	0.07289	0.00086	1.67040	0.13133	0.16620	0.01292	0.989	no	1011	24	997	49	991	71	2.1
ML109A-73A	333918	0	0.09991	0.00102	3.57482	0.26924	0.25951	0.01936	0.991	no	1622	19	1544	58	1487	98	9.3
ML109A-75A	724245	1	0.10326	0.00106	3.89538	0.30590	0.27361	0.02130	0.991	no	1683	19	1613	62	1559	107	8.3
ML109A-78A	154261	0	0.05569	0.00119	0.52031	0.04001	0.06777	0.00501	0.961	no	440	47	425	26	423	30	4.0
ML109-82A	166102	64	0.07211	0.00086	1.68068	0.11369	0.16905	0.01126	0.984	no	989	24	1001	42	1007	62	-2.0
ML109-83A	355573	42	0.08227	0.00087	2.52928	0.15212	0.22297	0.01320	0.985	no	1252	20	1280	43	1298	69	-4.0
ML109-84A	731788	372	0.09525	0.00104	3.30164	0.20902	0.25141	0.01568	0.985	no	1533	20	1481	48	1446	80	6.4

ML109A British Grid SD 7816 7103

Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML109-88A	131286	88	0.10099	0.00151	3.87550	0.28477	0.27831	0.02002	0.979	no	1642	27	1609	58	1583	100	4.1
ML109-90A	173378	48	0.09866	0.00107	3.84509	0.27975	0.28267	0.02033	0.989	no	1599	20	1602	57	1605	101	-0.4
ML109A-93A	175327	11	0.10432	0.00115	4.36277	0.28794	0.30332	0.01974	0.986	no	1702	20	1705	53	1708	97	-0.4
ML109A-97A	161971	20	0.07637	0.00095	1.96699	0.11935	0.18680	0.01109	0.979	no	1105	25	1104	40	1104	60	0.1
ML109A-100A	339930	33	0.11197	0.00120	4.85289	0.32972	0.31434	0.02109	0.988	no	1832	19	1794	56	1762	103	4.3
ML109A-101A	152162	17	0.09118	0.00112	3.31625	0.21642	0.26378	0.01691	0.982	no	1450	23	1485	50	1509	86	-4.5
ML109A-104A	167182	7	0.10267	0.00123	4.18308	0.25375	0.29549	0.01757	0.980	no	1673	22	1671	49	1669	87	0.3
ML109A-105A	287503	13	0.09228	0.00097	3.46703	0.22975	0.27250	0.01783	0.987	no	1473	20	1520	51	1553	90	-6.1
ML109A-108A	179226	19	0.18530	0.00196	13.13122	0.83237	0.51397	0.03212	0.986	no	2701	17	2689	58	2674	135	1.2
ML109A-109A	619192	44	0.07924	0.00110	2.01504	0.13600	0.18443	0.01218	0.979	no	1178	27	1121	45	1091	66	8.0
ML109A-110A	117551	5	0.06979	0.00082	1.56371	0.10337	0.16249	0.01057	0.984	no	922	24	956	40	971	58	-5.6
ML109A-111A	373760	9	0.08525	0.00091	2.62953	0.20335	0.22372	0.01713	0.990	no	1321	21	1309	55	1301	90	1.6
ML109A-112A	184450	6	0.07497	0.00087	1.84848	0.13047	0.17883	0.01245	0.986	no	1068	23	1063	45	1061	68	0.7
ML109A-113A	106526	16	0.07416	0.00090	1.92751	0.15182	0.18850	0.01467	0.988	no	1046	24	1091	51	1113	79	-7.0
Discordance >10% or <-10%																	
ML109A-7A	973465	792	0.08155	0.00172	2.08109	0.31009	0.18507	0.02730	0.990	yes	1235	41	1143	97	1095	147	12.3
ML109A-16A	297004	132	0.18350	0.00276	9.77855	1.28312	0.38648	0.05038	0.993	no	2685	25	2414	114	2106	230	25.2
ML109A-17A	32225	84	0.07007	0.00174	0.73331	0.09118	0.07591	0.00925	0.980	no	930	50	558	52	472	55	51.1
ML109A-18A	57918	74	0.08854	0.00159	2.52906	0.32343	0.20715	0.02623	0.990	no	1394	34	1280	89	1214	139	14.2
ML109A-19A	461602	78	0.06218	0.00298	0.85632	0.12316	0.09989	0.01354	0.943	no	680	99	628	65	614	79	10.2
ML109A-20A	24306	36	0.07815	0.00159	1.77536	0.22071	0.16476	0.02021	0.986	no	1151	40	1036	78	983	111	15.7
ML109A-23A	874759	751	0.18299	0.00311	8.49330	1.18231	0.33663	0.04651	0.992	yes	2680	28	2285	119	1870	220	34.7
ML109A-29A	151202	100	0.05792	0.00280	0.58739	0.07755	0.07355	0.00904	0.931	no	527	103	469	48	458	54	13.6
ML109A-31A	100702	445	0.03523	0.00751	0.35903	0.09160	0.07392	0.01035	0.549	yes	-691	508	311	66	460	62	172.8
ML109A-34A	191721	90	0.09579	0.00191	2.34831	0.31469	0.17781	0.02356	0.989	no	1544	37	1227	91	1055	128	34.3
ML109A-34B	126838	87	0.08300	0.00200	1.37277	0.17836	0.11995	0.01531	0.983	no	1269	46	877	74	730	88	44.9
ML109A-48A	151617	106	0.05728	0.00277	0.56002	0.08400	0.07091	0.01007	0.947	no	502	103	452	53	442	60	12.5
ML109A-49A	182530	111	0.11415	0.00173	4.65007	0.61011	0.29546	0.03851	0.993	no	1866	27	1758	104	1669	189	12.0
ML109A-54A	83690	150	0.08221	0.00170	2.17159	0.29405	0.19158	0.02564	0.988	no	1251	40	1172	90	1130	137	10.5
ML109A-56A	300125	611	0.04764	0.00329	0.44263	0.07054	0.06738	0.00968	0.901	yes	81	156	372	48	420	58	-430.0
ml109a-61	61403	2	0.05512	0.00288	0.45412	0.07055	0.05976	0.00874	0.942	no	417	113	380	48	374	53	10.6
ML109A-69A	391215	2	0.05815	0.00280	0.60479	0.08299	0.07543	0.00969	0.936	no	535	102	480	51	469	58	12.9
ML109A-70A	123631	25	0.06574	0.00156	0.86906	0.10649	0.09587	0.01153	0.981	no	798	49	635	56	590	67	27.3
ML109A-71A	113877	0	0.08566	0.00138	2.42639	0.29821	0.20544	0.02503	0.991	no	1330	31	1250	85	1204	132	10.4
ML109A-74A	865309	1396	0.07527	0.00212	1.54744	0.21746	0.14911	0.02053	0.980	yes	1076	56	949	83	896	114	17.9
ML109A-76A	22165	0	0.06452	0.00368	1.35436	0.18747	0.15224	0.01920	0.911	no	759	116	869	78	914	107	-21.9
ML109A-77A	29198	2	0.06523	0.00167	1.34059	0.16867	0.14906	0.01836	0.979	no	782	53	863	71	896	102	-15.6
ML109A-80A	11208	493	0.86213	0.07947	-27.14643	#NUM!	-0.22837	#NUM!	#####	yes	5028	125	#VALUE!	#VALUE!	-1671	#VALUE!	119.3
ML109-84A	731788	372	0.09233	0.00183	2.90308	0.40369	0.22805	0.03139	0.990	yes	1474	37	1383	100	1324	163	11.2
ML109-85A	133706	52	0.05171	0.00279	0.48280	0.07036	0.06771	0.00916	0.929	no	273	119	400	47	422	55	-56.7
ML109-86A	1032824	3669	0.09469	0.00352	0.96679	0.18740	0.07405	0.01409	0.981	yes	1522	68	687	92	461	84	72.2
ML109-87A	93543	43	0.06756	0.00154	1.53008	0.19677	0.16427	0.02079	0.984	no	855	47	943	76	980	114	-15.8
ML109-86B	977416	3865	0.09954	0.00447	1.16751	0.18991	0.08507	0.01330	0.961	yes	1616	81	785	85	526	79	70.1
ML109-88A	131286	88	0.10026	0.00184	3.49869	0.45041	0.25309	0.03225	0.990	no	1629	34	1527	97	1454	164	12.0
ML109A-91A	402235	1036	0.16966	0.00422	5.33065	0.80387	0.22787	0.03389	0.986	yes	2554	41	1874	121	1323	176	53.1
ML109A-92A	275	21	0.84003	0.97100	-0.12674	-3.20806	-0.00109	-0.02767	0.999	no	4991	1068	-138	#VALUE!	-7	-181	100.1
ML109A-94A	133875	11	0.05296	0.00270	0.53161	0.07261	0.07281	0.00923	0.928	no	327	112	433	47	453	55	-39.9
ML109A-96A	135100	246	0.08096	0.00204	0.71930	0.09253	0.06444	0.00813	0.981	no	1221	49	550	53	403	49	69.1
ML109A-98A	92628	177	0.07923	0.00363	0.75225	0.10177	0.06886	0.00877	0.941	no	1178	88	570	57	429	53	65.7
ML109A-99A	79420	39	0.05344	0.00299	0.50603	0.07167	0.06867	0.00894	0.919	no	348	122	416	47	428	54	-23.9
ML109A-100A	339930	33	0.11115	0.00168	4.38105	0.55051	0.28586	0.03566	0.993	no	1818	27	1709	99	1621	176	12.3
ML109A-102A	26923	6	0.05989	0.00358	1.48990	0.20477	0.18042	0.02233	0.900	no	600	124	926	80	1069	121	-85.1
ML109A-106A	125885	15	0.05289	0.00264	0.47841	0.06494	0.06561	0.00828	0.930	no	324	110	397	44	410	50	-27.3
ML109A-107A	235538	39	0.05780	0.00284	0.54555	0.07371	0.06846	0.00862	0.932	no	522	104	442	47	427	52	18.8
ML109A-109A	619192	44	0.07866	0.00138	1.81912	0.22814	0.16772	0.02083	0.990	no	1164	34	1052	79	1000	114	15.2
ML109A-115A	251463	30	0.08099	0.00146	1.78825	0.22869	0.16013	0.02027	0.990	no	1221	35	1041	80	958	112	23.2
ML109A-116A	1381410	57	0.08682	0.00142	2.16980	0.28791	0.18125	0.02387	0.992	no	1357	31	1171	88	1074	129	22.6
ML109A-35A	6598	400	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#####	no	Discarded: not zircon						

ML109A

ML109A British Grid SD 7816 7103

Isotopic ratios

Apparent age summary

sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
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Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH9415-1		0.112935	0.000170	0.382398	0.003324
LH9415-2		0.113225	0.000219	0.399416	0.005885
LH9415-3		0.113136	0.000225	0.393216	0.005784
LH9415-4		0.112874	0.000172	0.384819	0.005234
LH9415-5		0.112651	0.000223	0.397254	0.007326
LH9415-6		0.113264	0.000152	0.372309	0.006799
LH9415-8		0.113528	0.000219	0.382459	0.003696
LH9415-9		0.113553	0.000143	0.387154	0.003484
LH9415-11		0.113637	0.000150	0.404372	0.004009
LH9415-12		0.114049	0.000206	0.381765	0.006089
LH9415-13		0.114442	0.000199	0.388660	0.003865
LH9415-14		0.114067	0.000193	0.375923	0.006166
LH9415-15		0.114376	0.000147	0.366465	0.004965
LH9415-16	*	0.114391	0.000186	0.372681	0.006566
LH9415-17	*	0.114581	0.000170	0.378671	0.005655
LH9415-17A		0.113542	0.000205	0.362274	0.004704
LH9415-18		0.113414	0.000223	0.370863	0.006270
LH9415-19		0.113393	0.000157	0.364860	0.003379
LH9415-20	*	0.112386	0.000161	0.369079	0.003828
LH9415-21	*	0.111685	0.000196	0.350695	0.006683
LH9415-22		0.112679	0.000215	0.345098	0.005354
LH9415-23		0.111920	0.000243	0.343435	0.004439
LH9415-25		0.112444	0.000245	0.330750	0.005017
LH9415-27		0.112896	0.000236	0.338413	0.007181
LH9415-28		0.111916	0.000182	0.322647	0.006453
LH9415-29		0.112100	0.000206	0.342665	0.003565
GJ132-1		0.061244	0.000196	0.114402	0.001674
GJ132-2		0.062464	0.000166	0.115970	0.000868
GJ132-3		0.060850	0.000148	0.114506	0.001266
GJ132-4		0.060025	0.000138	0.112342	0.002188
GJ132-6		0.062317	0.000399	0.118238	0.001536
GJ132-9		0.062029	0.000311	0.123702	0.001891
GJ132-10	*	0.061367	0.000326	0.122920	0.005509
GJ132-11		0.060393	0.000173	0.115570	0.001916
GJ132-12		0.061038	0.000243	0.108175	0.002255
GJ132-13		0.061048	0.000128	0.114569	0.001261
GJ132-14		0.061101	0.000206	0.110322	0.001257
GJ132-15		0.061432	0.000100	0.110120	0.001953
GJ132-17		0.060037	0.000279	0.110722	0.001836
GJ132-18		0.060096	0.000316	0.104961	0.001380
GJ132-19		0.059769	0.000297	0.105854	0.001176
GJ132-20	*	0.058109	0.000320	0.112569	0.002513
GJ132-21	*	0.057972	0.000507	0.105299	0.000939
GJ132-22		0.058997	0.000162	0.102988	0.001354
GJ132-23		0.058654	0.000350	0.100936	0.000733
GJ132-25		0.058565	0.000316	0.099584	0.000880
GJ132-27		0.058969	0.000279	0.101387	0.001194
GJ132-28		0.058663	0.000411	0.102623	0.001467
GJ132-29		0.057817	0.000237	0.100655	0.001577

ML119A		Irish Grid		IS 8715 0778												Apparent age summary				
Isotopic ratios																				
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %			
Better than ± 10% discordant																				
ML119A-001	85308	170	0.08686	0.00116	2.58407	0.16717	0.21577	0.01366	0.978	no	1357	26	1296	46	1259	72	7.9			
ML119A-004	270499	217	0.12578	0.00137	6.66596	0.45646	0.38438	0.02598	0.987	no	2040	19	2068	59	2097	120	-3.3			
ML119A-005	258080	189	0.12362	0.00128	5.82694	0.40347	0.34187	0.02340	0.989	no	2009	18	1950	58	1896	111	6.5			
ML119A-006	98774	216	0.06107	0.00086	0.85594	0.04567	0.10166	0.00523	0.964	no	642	30	628	25	624	31	2.9			
ML119A-007	37350	241	0.05865	0.00111	0.69423	0.03705	0.08584	0.00428	0.935	no	554	41	535	22	531	25	4.4			
ML119A-008	95963	269	0.05836	0.00082	0.69332	0.03364	0.08616	0.00400	0.957	no	543	30	535	20	533	24	2.0			
ML119A-009	36233	255	0.05881	0.00097	0.71745	0.03618	0.08848	0.00422	0.945	no	560	36	549	21	547	25	2.5			
ML119A-010	101129	246	0.06362	0.00073	1.00078	0.06964	0.11409	0.00783	0.986	no	729	24	704	35	696	45	4.7			
ML119A-011	77699	238	0.05799	0.00080	0.68414	0.03377	0.08556	0.00406	0.961	no	530	30	529	20	529	24	0.1			
ML119A-012	49248	228	0.05837	0.00088	0.72562	0.03779	0.09016	0.00450	0.957	no	544	33	554	22	557	27	-2.5			
ML119A-013	41413	167	0.05913	0.00092	0.77964	0.04712	0.09563	0.00558	0.966	no	572	34	585	27	589	33	-3.1			
ML119A-014	30779	167	0.07404	0.00111	1.70911	0.11601	0.16742	0.01108	0.975	no	1042	30	1012	43	998	61	4.6			
ML119A-016	205944	162	0.12860	0.00131	6.19525	0.38216	0.34939	0.02126	0.986	no	2079	18	2004	53	1932	101	8.2			
ML119A-017	25127	196	0.06050	0.00130	0.91751	0.05394	0.10999	0.00602	0.931	no	621	46	661	28	673	35	-8.7			
ML119A-018	133989	165	0.05897	0.00080	0.68640	0.04308	0.08442	0.00517	0.976	no	566	29	531	26	522	31	8.0			
ML119A-019	380547	166	0.12174	0.00128	6.04553	0.42111	0.36017	0.02480	0.989	no	1982	19	1982	59	1983	116	-0.1			
ML119A-021	16599	32	0.06452	0.00123	1.09900	0.07028	0.12355	0.00754	0.954	no	759	40	753	33	751	43	1.1			
ML119A-022	77293	27	0.09483	0.00115	3.15567	0.21253	0.24135	0.01599	0.984	no	1525	23	1446	51	1394	82	9.6			
ML119A-029	99898	66	0.12790	0.00140	6.09694	0.41804	0.34574	0.02340	0.987	no	2069	19	1990	58	1914	111	8.7			
ML119A-030	16919	17	0.06060	0.00106	0.86812	0.04283	0.10389	0.00479	0.935	no	625	37	635	23	637	28	-2.0			
ML119A-031	11682	75	0.06011	0.00159	0.80844	0.04243	0.09755	0.00442	0.863	no	607	56	602	24	600	26	1.3			
ML119A-032	25262	75	0.06114	0.00107	0.80995	0.04078	0.09609	0.00454	0.938	no	644	37	602	23	591	27	8.5			
ML119A-033	68893	52	0.05885	0.00086	0.69601	0.03408	0.08578	0.00401	0.955	no	562	31	536	20	531	24	5.8			
ML119A-034	17196	89	0.05975	0.00164	0.82803	0.04587	0.10051	0.00483	0.868	no	594	59	613	25	617	28	-4.1			
ML119A-035	46251	104	0.05952	0.00085	0.70999	0.03816	0.08651	0.00448	0.964	no	586	31	545	22	535	27	9.1			
ML119A-038	44034	122	0.12992	0.00148	6.25776	0.39595	0.34934	0.02174	0.984	no	2097	20	2013	54	1931	103	9.1			
ML119A-040	128716	127	0.06021	0.00079	0.77246	0.04820	0.09305	0.00568	0.977	no	611	28	581	27	574	33	6.4			
ML119A-041	1089109	291	0.21847	0.00235	17.64619	1.22919	0.58581	0.04031	0.988	no	2969	17	2971	65	2972	162	-0.1			
ML119A-042	41890	251	0.05516	0.00091	0.49979	0.02921	0.06571	0.00368	0.959	no	419	36	412	20	410	22	2.1			
ML119A-043	11919	248	0.05892	0.00179	0.76785	0.04081	0.09451	0.00412	0.820	no	564	65	579	23	582	24	-3.3			
ML119A-045	330057	209	0.17583	0.00188	11.53905	0.68646	0.47596	0.02785	0.984	no	2614	18	2568	54	2510	121	4.8			
ML119A-046	22503	251	0.05967	0.00138	0.74765	0.04342	0.09087	0.00484	0.917	no	592	49	567	25	561	29	5.5			
ML119A-047	61141	260	0.06036	0.00095	0.75477	0.03735	0.09070	0.00425	0.948	no	616	34	571	21	560	25	9.6			
ML119A-052	62425	0	0.05981	0.00093	0.72207	0.04308	0.08757	0.00504	0.965	no	597	33	552	25	541	30	9.7			
ML119A-054	11496	0	0.05944	0.00285	0.80642	0.05607	0.09839	0.00495	0.723	no	583	101	600	31	605	29	-3.9			
ML119A-057	423067	0	0.11497	0.00120	4.86749	0.38168	0.30706	0.02386	0.991	no	1879	19	1797	64	1726	117	9.3			
ML119A-058	153939	0	0.09755	0.00103	3.62810	0.24222	0.26975	0.01778	0.987	no	1578	20	1556	52	1540	90	2.7			
ML119A-059	18932	0	0.06144	0.00221	0.85511	0.06090	0.10094	0.00620	0.863	no	655	75	627	33	620	36	5.6			
ML119A-060	121878	0	0.05820	0.00078	0.71053	0.03828	0.08854	0.00462	0.969	no	537	29	545	22	547	27	-1.9			
ML119A-061	658882	60	0.19794	0.00206	13.56233	0.90929	0.49693	0.03291	0.988	no	2809	17	2720	62	2601	140	9.0			
ML119A-062	282725	52	0.16190	0.00166	10.10401	0.65947	0.45263	0.02918	0.988	no	2476	17	2444	59	2407	128	3.3			
ML119A-064	27559	17	0.05932	0.00139	0.69354	0.03864	0.08480	0.00429	0.908	no	579	50	535	23	525	25	9.7			
ML119A-065	250422	20	0.19884	0.00421	13.88411	1.01506	0.50641	0.03544	0.957	no	2817	34	2742	67	2641	150	7.6			
ML119A-067	59267	8	0.05786	0.00083	0.66373	0.04486	0.08320	0.00550	0.977	no	524	31	517	27	515	33	1.8			
ML119A-068	23850	14	0.09224	0.00122	3.03700	0.19456	0.23879	0.01497	0.979	no	1472	25	1417	48	1380	77	6.9			
ML119A-069	86386	4	0.05876	0.00083	0.67506	0.04172	0.08332	0.00501	0.974	no	558	30	524	25	516	30	7.9			
ML119A-072	51398	12	0.05893	0.00093	0.68165	0.03949	0.08389	0.00468	0.962	no	565	34	528	24	519	28	8.4			
ML119A-075	43135	66	0.05951	0.00094	0.71768	0.04195	0.08747	0.00492	0.963	no	586	34	549	25	541	29	8.0			
ML119A-077	163064	45	0.08040	0.00084	2.43191	0.18114	0.21937	0.01618	0.990	no	1207	21	1252	52	1279	85	-6.5			
ML119A-078	64355	95	0.12165	0.00199	5.53932	0.40458	0.33025	0.02351	0.975	no	1981	29	1907	61	1840	113	8.2			
ML119A-082	188412	120	0.11029	0.00115	4.54078	0.30489	0.29861	0.01981	0.988	no	1804	19	1738	54	1684	98	7.5			
ML119A-083	348734	93	0.12306	0.00126	5.79044	0.34746	0.34126	0.02018	0.985	no	2001	18	1945	51	1893	96	6.2			
ML119A-087	11271	161	0.06150	0.00196	0.88673	0.04807	0.10457	0.00459	0.809	no	657	67	645	26	641	27	2.5			
ML119A-090	226540	188	0.11114	0.00114	4.49443	0.31829	0.29328	0.02055	0.989	no	1818	19	1730	57	1658	102	10.0			
ML119A-091	11998	23	0.05761	0.00153	0.71982	0.03891	0.09062	0.00427	0.871	no	515	57	551	23	559	25	-9.0			
ML119A-098	196821	1	0.10952	0.00114	4.67725	0.28507	0.30974	0.01860	0.985	no	1791	19	1763	50	1739	91	3.3			
ML119A-099	22759	0	0.12927	0.00163	6.53627	0.41874	0.36671	0.02303	0.980	no	2088	22	2051	55	2014	108	4.1			
ML119A-100	52594	0	0.05966	0.00092	0.79210	0.05220	0.09630	0.00617	0.972	no	591	33	592	29	593	36	-0.3			
ML119A-101B_25un	1092328	14	0.23414	0.00244	18.10066	1.25314	0.56068	0.03837	0.989	no	3081	17	2995	65	2869	157	8.5			
ML119A-102	69601	24	0.06217	0.00097	0.89024	0.04895	0.10385	0.00548	0.959	no	680	33	646	26	637	32	6.7			

Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML119A-103	168903	35	0.06252	0.00089	0.92229	0.04867	0.10698	0.00544	0.963	no	692	30	664	25	655	32	5.6
ML119A-104	44751	3	0.05903	0.00090	0.71354	0.04212	0.08766	0.00500	0.966	no	568	33	547	25	542	30	4.9
ML119A-105	93942	15	0.05939	0.00082	0.71780	0.03553	0.08766	0.00417	0.960	no	581	30	549	21	542	25	7.1
ML119A-106	87638	11	0.12817	0.00137	6.34921	0.39333	0.35927	0.02192	0.985	no	2073	19	2025	53	1979	103	5.3
ML119A-107	78639	2	0.08035	0.00090	2.16731	0.13325	0.19562	0.01183	0.983	no	1206	22	1171	42	1152	63	4.9
ML119A-108	47630	9	0.06062	0.00135	0.82143	0.04167	0.09828	0.00448	0.898	no	626	47	609	23	604	26	3.6
ML119A-109	51011	5	0.05997	0.00095	0.77995	0.04416	0.09433	0.00513	0.960	no	602	34	585	25	581	30	3.7
ML119A-111	51251	21	0.09043	0.00108	2.80383	0.18442	0.22489	0.01455	0.984	no	1435	23	1357	48	1308	76	9.8
ML119A-112	59902	11	0.06015	0.00092	0.77043	0.04877	0.09290	0.00571	0.971	no	609	33	580	28	573	34	6.2
ML119A-113	35329	13	0.05945	0.00097	0.76823	0.03872	0.09372	0.00447	0.946	no	584	35	579	22	577	26	1.1
ML119A-114	45685	2	0.05975	0.00096	0.75817	0.03903	0.09203	0.00450	0.950	no	594	34	573	22	568	27	4.7
ML119A-115	84780	4	0.06006	0.00096	0.77391	0.03575	0.09346	0.00405	0.938	no	606	34	582	20	576	24	5.1
ML119A-117	106696	10	0.05930	0.00082	0.72873	0.03735	0.08913	0.00440	0.963	no	578	30	556	22	550	26	5.0
ML119A-118	93116	4	0.06044	0.00083	0.77757	0.03853	0.09331	0.00444	0.961	no	619	29	584	22	575	26	7.5
ML119A-120	55736	22	0.05873	0.00089	0.71938	0.04473	0.08884	0.00536	0.970	no	557	33	550	26	549	32	1.6
ML119A-121	13704	4	0.06260	0.00302	0.89516	0.06340	0.10371	0.00538	0.733	no	695	99	649	33	636	31	8.9
ML119A-123	65299	6	0.06044	0.00084	0.77985	0.04039	0.09357	0.00467	0.963	no	619	30	585	23	577	27	7.2
ML119A-125	109624	17	0.06362	0.00072	0.99723	0.05887	0.11369	0.00659	0.982	no	729	24	702	29	694	38	5.0
ML119A-126	60784	18	0.09095	0.00101	2.92461	0.17971	0.23321	0.01409	0.984	no	1446	21	1388	45	1351	73	7.2
ML119A-127	51122	17	0.05987	0.00084	0.75613	0.05901	0.09160	0.00703	0.984	no	599	30	572	34	565	41	5.9
ML119A-128	128876	20	0.11900	0.00123	5.38870	0.39316	0.32841	0.02372	0.990	no	1941	18	1883	61	1831	114	6.5
ML119A-130	32277	16	0.05943	0.00118	0.70038	0.03931	0.08548	0.00449	0.936	no	583	42	539	23	529	27	9.7
Discordance >10% or <10%																	
ML119A-002	23641	191	0.06126	0.00111	0.77817	0.03786	0.09214	0.00416	0.928	no	648	38	584	21	568	25	12.9
ML119A-003	10781	223	0.05672	0.00163	0.76407	0.04655	0.09771	0.00525	0.882	no	481	62	576	26	601	31	-26.2
ML119A-015	14454	160	0.06398	0.00322	0.48199	0.08224	0.05464	0.00891	0.955	no	741	103	399	55	343	54	55.1
ML119A-020	9566	146	0.05230	0.00187	0.68665	0.03946	0.09522	0.00429	0.784	no	299	79	531	23	586	25	-100.8
ML119A-023	61046	7	0.06259	0.00088	0.88205	0.04525	0.10221	0.00504	0.962	no	694	30	642	24	627	29	10.1
ML119A-024	7269	6	0.06239	0.00197	0.82908	0.04589	0.09637	0.00439	0.822	no	688	66	613	25	593	26	14.4
ML119A-025	41725	18	0.06259	0.00174	0.76947	0.05122	0.08916	0.00539	0.909	no	694	58	579	29	551	32	21.6
ML119A-026	37971	21	0.06171	0.00099	0.80522	0.04694	0.09463	0.00530	0.961	no	664	34	600	26	583	31	12.8
ML119A-027	26742	33	0.07561	0.00129	1.70160	0.11432	0.16322	0.01061	0.967	no	1085	34	1009	42	975	59	10.9
ML119A-028	31749	34	0.09491	0.00141	3.10554	0.20852	0.23731	0.01554	0.975	no	1526	28	1434	50	1373	80	11.2
ML119A-036	20883	97	0.06215	0.00112	0.83016	0.04487	0.09687	0.00493	0.942	no	679	38	614	25	596	29	12.8
ML119A-037	52412	113	0.06110	0.00095	0.78701	0.03869	0.09342	0.00436	0.949	no	643	33	589	22	576	26	10.9
ML119A-039	8255	131	0.06408	0.00535	0.89132	0.09485	0.10087	0.00667	0.621	no	744	167	647	50	620	39	17.6
ML119A-044	870786	263	0.19510	0.00241	12.37754	0.78940	0.46012	0.02879	0.981	no	2786	20	2633	58	2440	126	14.9
ML119A-048	177083	318	0.03318	0.00371	0.39945	0.04864	0.08733	0.00423	0.398	yes	-860	295	341	35	540	25	169.9
ML119A-049	53986	307	0.06329	0.00234	0.76842	0.05064	0.08805	0.00480	0.828	no	718	77	579	29	544	28	25.3
ML119A-050	44743	285	0.05951	0.00093	0.69278	0.03338	0.08444	0.00385	0.946	no	586	34	534	20	523	23	11.2
ML119A-051	31534	0	0.06125	0.00116	0.75313	0.03893	0.08918	0.00429	0.931	no	648	40	570	22	551	25	15.7
ML119A-053	651521	95	0.12672	0.00140	5.30844	0.35138	0.30382	0.01983	0.986	no	2053	19	1870	55	1710	97	19.0
ML119A-055	76375	0	0.05921	0.00090	0.67165	0.04522	0.08227	0.00540	0.974	no	575	33	522	27	510	32	11.8
ML119A-056	94748	2	0.06094	0.00091	0.76355	0.04168	0.09087	0.00477	0.962	no	637	32	576	24	561	28	12.5
ML119A-063	255269	53	0.12905	0.00132	6.06624	0.37439	0.34093	0.02075	0.986	no	2085	18	1985	52	1891	99	10.7
ML119A-066	322661	44	0.12791	0.00136	5.88189	0.42120	0.33351	0.02362	0.989	no	2069	19	1959	60	1855	113	11.9
ML119A-070	9806	13	0.05624	0.00174	0.70291	0.04311	0.09065	0.00480	0.863	no	462	67	541	25	559	28	-22.1
ML119A-071	118759	28	0.21938	0.00239	15.84177	1.03742	0.52374	0.03382	0.986	no	2976	17	2867	61	2715	142	10.7
ML119A-073	41405	12	0.06134	0.00128	0.80184	0.04418	0.09481	0.00484	0.926	no	651	44	598	25	584	28	10.8
ML119A-074	23983	59	0.05952	0.00125	0.69737	0.04171	0.08498	0.00476	0.936	no	586	45	537	25	526	28	10.7
ML119A-076	27156	50	0.06600	0.00156	1.01123	0.06991	0.11112	0.00722	0.940	no	806	49	709	35	679	42	16.6
ML119A-079	47898	53	0.05892	0.00085	0.66589	0.03302	0.08197	0.00389	0.956	no	564	31	518	20	508	23	10.4
ML119A-080	49496	89	0.06105	0.00106	0.78445	0.03818	0.09319	0.00424	0.934	no	641	37	588	21	574	25	10.9
ML119A-081	21379	97	0.05571	0.00185	0.48721	0.02839	0.06343	0.00303	0.821	no	441	72	403	19	396	18	10.4
ML119A-084	228019	123	0.18496	0.00245	10.74492	0.90507	0.42133	0.03505	0.988	no	2698	22	2501	75	2266	157	18.9
ML119A-085	8940	94	0.05860	0.00174	0.80827	0.05015	0.10004	0.00545	0.878	no	552	63	601	28	615	32	-11.9
ML119A-086	42145	154	0.06103	0.00109	0.78116	0.04032	0.09284	0.00450	0.938	no	640	38	586	23	572	26	11.1
ML119A-088	46335	152	0.06015	0.00094	0.63216	0.03655	0.07622	0.00424	0.963	no	609	33	497	22	474	25	23.1
ML119A-089	49901	150	0.07689	0.00185	1.78711	0.15990	0.16857	0.01453	0.963	no	1118	47	1041	57	1004	80	11.0
ML119A-092	65262	10	0.05939	0.00096	0.67533	0.03379	0.08247	0.00391	0.947	no	581	35	524	20	511	23	12.6
ML119A-093	57119	19	0.06441	0.00127	0.96284	0.06645	0.10842	0.00717	0.958	no	755	41	685	34	664	42	12.8

ML119A		Irish Grid		IS 8715 0778		Apparent age summary											
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
ML119A-094	38286	3	0.06183	0.00129	0.81086	0.04364	0.09511	0.00472	0.922	no	668	44	603	24	586	28	12.9
ML119A-095	9461	4	0.05660	0.00455	0.71348	0.06697	0.09143	0.00442	0.515	no	476	169	547	39	564	26	-19.4
ML119A-096	160482	2	0.14284	0.00261	6.53695	0.46420	0.33191	0.02278	0.966	no	2262	31	2051	61	1848	109	21.0
ML119A-097	7663	0	0.05336		0.74401	0.04791	0.10113	0.00483	0.742	no	344	95	565	28	621	28	-84.5
ML119A-110	11347	23	0.05635	0.00133	0.72903	0.04496	0.09383	0.00535	0.924	no	466	51	556	26	578	31	-25.1
ML119A-116	58461	7	0.05936	0.00091	0.68084	0.03753	0.08319	0.00441	0.961	no	580	33	527	22	515	26	11.7
ML119A-119	4990	14	0.04978	0.00248	0.64950	0.04395	0.09462	0.00433	0.677	no	185	112	508	27	583	25	-225.1
ML119A-122	78543	11	0.09491	0.00104	3.02644	0.18435	0.23128	0.01386	0.984	no	1526	21	1414	45	1341	72	13.4
ML119A-124	18695	24	0.07293	0.00139	0.73437	0.04677	0.07303	0.00444	0.954	no	1012	38	559	27	454	27	57.0
ML119A-129	189349	73	0.10589	0.00167	2.67473	0.18967	0.18319	0.01267	0.975	no	1730	29	1321	51	1084	69	40.5

ML119A

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	²⁰⁷ Pb/ ²⁰⁶ Pb	1 se	²⁰⁶ Pb/ ²³⁸ U	1 se
LH9415-001	*	0.119527	0.000247	0.312957	0.005354
LH9415-002		0.117392	0.000218	0.320875	0.003728
LH9415-003		0.116956	0.000201	0.329189	0.002884
LH9415-004		0.116301	0.000114	0.320412	0.003539
LH9415-005		0.116330	0.000198	0.325101	0.004519
LH9415-006		0.116551	0.000134	0.316089	0.003502
LH9415-007		0.116519	0.000137	0.323671	0.004758
LH9415-009		0.117707	0.000416	0.325428	0.002786
LH9415-010		0.115944	0.000207	0.317952	0.004055
LH9415-011		0.117709	0.000277	0.311492	0.005391
LH9415-012		0.116509	0.000139	0.308814	0.003712
LH9415-013		0.117233	0.000117	0.311985	0.003005
LH9415-014		0.116356	0.000148	0.325189	0.006040
LH9415-015		0.116643	0.000153	0.302844	0.004874
LH9415-017		0.116591	0.000147	0.304622	0.003976
LH9415-018		0.116643	0.000192	0.325236	0.003208
LH9415-019		0.116475	0.000164	0.317444	0.002512
LH9415-020		0.117366	0.000217	0.319427	0.003337
LH9415-021		0.116566	0.000225	0.325499	0.004048
LH9415-022		0.117798	0.000510	0.319502	0.002853
LH9415-023		0.116854	0.000202	0.308371	0.005357
LH9415-024		0.117376	0.000348	0.308503	0.003411
LH9415-025		0.116426	0.000161	0.314958	0.003573
LH9415-026		0.116842	0.000224	0.315629	0.003352
LH9415-027		0.116165	0.000094	0.315553	0.004067
LH9415-028		0.117059	0.000192	0.329388	0.002360
LH9415-029		0.116444	0.000214	0.341328	0.003121
LH9415-030		0.117357	0.000356	0.331587	0.004203
LH9415-031		0.116670	0.000158	0.317765	0.003223
LH9415-032		0.117083	0.000220	0.305310	0.003491
LH9415-033		0.116605	0.000205	0.313246	0.003305
GJ132-001	*	0.062917	0.000188	0.097247	0.000722
GJ132-002		0.062839	0.000148	0.096663	0.001502
GJ132-007		0.062059	0.000230	0.094830	0.000674
GJ132-010		0.061979	0.000181	0.095348	0.001037
GJ132-012		0.063301	0.000288	0.091621	0.001137
GJ132-014		0.062619	0.000163	0.093081	0.000650
GJ132-017		0.063008	0.000332	0.094314	0.001172
GJ132-019		0.062302	0.000198	0.095369	0.001098
GJ132-021		0.062618	0.000171	0.094149	0.001111
GJ132-023		0.062365	0.000191	0.092770	0.001292
GJ132-025		0.062806	0.000182	0.092602	0.000811
GJ132-027		0.062179	0.000189	0.093759	0.001115
GJ132-029		0.062075	0.000271	0.097287	0.001074

ML120A		Irish Grid		IO 2317 1461													
Isotopic ratios										Apparent age summary							
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML120A-003	136230	36	0.08814	0.00098	2.70357	0.09471	0.22245	0.00739	0.948	no	1386	21	1329	26	1295	39	7.2
ML120A-004	453523	58	0.12618	0.00129	6.00476	0.22283	0.34516	0.01232	0.962	no	2045	18	1977	32	1911	59	7.6
ML120A-007	143909	73	0.09785	0.00101	3.57336	0.12121	0.26486	0.00856	0.953	no	1584	19	1544	27	1515	43	4.9
ML120A-009	77214	77	0.05970	0.00072	0.80790	0.02774	0.09815	0.00316	0.937	no	593	26	601	15	604	19	-1.9
ML120A-010	106563	83	0.05969	0.00072	0.77684	0.03003	0.09439	0.00346	0.950	no	592	26	584	17	581	20	2.0
ML120A-11	850660	352	0.18109	0.00211	11.91388	0.88472	0.47716	0.03500	0.988	no	2663	19	2598	67	2515	151	6.7
ML120A-013	145759	205	0.08139	0.00093	2.38297	0.16581	0.21234	0.01457	0.986	no	1231	22	1238	49	1241	77	-0.9
ML120A-014	999635	234	0.09899	0.00114	3.95746	0.27558	0.28996	0.01991	0.986	no	1605	21	1626	55	1641	99	-2.6
ML120A-016	80657	167	0.09380	0.00115	3.34100	0.23647	0.25832	0.01801	0.985	no	1504	23	1491	54	1481	92	1.7
ML120A-017	275841	189	0.09652	0.00109	3.68813	0.25562	0.27713	0.01895	0.987	no	1558	21	1569	54	1577	95	-1.4
ML120A-018	42313	211	0.08886	0.00119	2.90638	0.20334	0.23721	0.01629	0.981	no	1401	26	1384	52	1372	84	2.3
ML120A-020	563624	221	0.10334	0.00115	4.31312	0.29771	0.30271	0.02062	0.987	no	1685	20	1696	55	1705	101	-1.3
ML120A-021	382387	114	0.11960	0.00133	5.71063	0.41556	0.34631	0.02491	0.988	no	1950	20	1933	61	1917	118	2.0
ML120A-022	233847	103	0.16029	0.00179	10.24441	0.76918	0.46352	0.03441	0.989	no	2459	19	2457	67	2455	150	0.2
ML120A-023	102868	116	0.13810	0.00170	7.23429	0.51726	0.37994	0.02676	0.985	no	2203	21	2141	62	2076	124	6.8
ML120A-024	1085469	186	0.22392	0.00245	18.77280	1.30404	0.60804	0.04171	0.987	no	3009	17	3030	65	3062	165	-2.2
ML120A-025	405266	304	0.08241	0.00145	2.37919	0.16940	0.20938	0.01445	0.969	no	1255	34	1236	50	1225	77	2.6
ML120A-026	47531	96	0.06122	0.00096	0.84774	0.03458	0.10043	0.00379	0.924	no	647	33	623	19	617	22	4.9
ML120A-027	498006	186	0.13883	0.00158	7.16116	0.49575	0.37410	0.02555	0.986	no	2213	20	2132	60	2049	119	8.6
ML120A-028	108415	115	0.06042	0.00065	0.86909	0.03460	0.10432	0.00400	0.963	no	619	23	635	19	640	23	-3.6
ML120A-030	322002	142	0.07911	0.00088	2.17127	0.15243	0.19906	0.01380	0.987	no	1175	22	1172	48	1170	74	0.4
ML120A-031	299929	79	0.12270	0.00126	6.08509	0.22048	0.35967	0.01250	0.959	no	1996	18	1988	31	1981	59	0.9
ML120A-032	221844	117	0.09682	0.00101	3.60942	0.13217	0.27038	0.00949	0.958	no	1564	20	1552	29	1543	48	1.5
ML120A-033	752842	153	0.07845	0.00081	2.17238	0.08080	0.20085	0.00718	0.961	no	1158	20	1172	26	1180	38	-2.0
ML120A-034	73719	142	0.05978	0.00073	0.79182	0.02938	0.09606	0.00336	0.944	no	596	26	592	17	591	20	0.8
ML120A-035	397319	129	0.12756	0.00130	6.52114	0.23024	0.37078	0.01254	0.958	no	2065	18	2049	31	2033	59	1.8
ML120A-036	83701	154	0.06076	0.00083	0.82200	0.03272	0.09811	0.00367	0.939	no	631	29	609	18	603	21	4.6
ML120A-037	488563	168	0.11257	0.00116	5.24779	0.17765	0.33810	0.01090	0.953	no	1841	19	1860	28	1878	52	-2.3
ML120A-039	44139	151	0.09479	0.00123	3.34472	0.12447	0.25593	0.00892	0.937	no	1524	24	1492	29	1469	46	4.0
ML120A-040	76079	149	0.07515	0.00091	1.73362	0.05950	0.16732	0.00538	0.936	no	1072	24	1021	22	997	30	7.6
ML120A-041	51713	111	0.09488	0.00110	3.35179	0.11980	0.25621	0.00866	0.946	no	1526	22	1493	28	1470	44	4.1
ML120A-042	53321	143	0.06186	0.00110	0.87281	0.03397	0.10233	0.00355	0.890	no	669	37	637	18	628	21	6.5
ML120A-043	667708	659	0.17218	0.00250	11.59996	0.40527	0.48863	0.01552	0.909	yes	2579	24	2573	32	2565	67	0.7
ML120A-044	1105970	100	0.09376	0.00095	3.42670	0.12753	0.26507	0.00949	0.962	no	1503	19	1511	29	1516	48	-0.9
ML120A-045	1447187	621	0.17473	0.00208	11.70252	0.45046	0.48574	0.01778	0.951	yes	2604	20	2581	35	2552	77	2.4
ML120A-046	50242	122	0.06063	0.00082	0.87064	0.03565	0.10415	0.00402	0.943	no	626	29	636	19	639	23	-2.1
ML120A-048	1319680	457	0.18018	0.00222	12.07855	0.54136	0.48620	0.02095	0.961	no	2655	20	2611	41	2554	90	4.6
ML120A-049	69044	106	0.06114	0.00076	0.87907	0.03717	0.10429	0.00421	0.955	no	644	27	640	20	639	25	0.7
ML120A-050	396726	71	0.08161	0.00086	2.32853	0.09647	0.20694	0.00829	0.967	no	1236	21	1221	29	1213	44	2.1
ML120A-051	21277	20	0.06061	0.00118	0.81803	0.03266	0.09789	0.00341	0.873	no	625	41	607	18	602	20	3.9
ML120A-052	1364709	112	0.18975	0.00197	12.83198	0.45357	0.49047	0.01657	0.956	no	2740	17	2667	33	2573	71	7.4
ML120A-053	1100486	14	0.17152	0.00184	11.30874	0.38720	0.47819	0.01555	0.950	no	2573	18	2549	31	2519	67	2.5
ML120A-054	624427	20	0.07771	0.00080	2.05620	0.07585	0.19191	0.00679	0.960	no	1139	20	1134	25	1132	37	0.7
ML120A-055	191419	24	0.14043	0.00145	7.83121	0.27572	0.40444	0.01362	0.956	no	2233	18	2212	31	2189	62	2.3
ML120A-056	1007418	28	0.18038	0.00195	12.29449	0.49317	0.49434	0.01910	0.963	no	2656	18	2627	37	2589	82	3.1
ML120A-057	241638	36	0.12558	0.00130	6.23036	0.21106	0.35982	0.01160	0.952	no	2037	18	2009	29	1981	55	3.2
ML120A-058	166253	14	0.09792	0.00106	3.55243	0.13152	0.26312	0.00931	0.956	no	1585	20	1539	29	1506	47	5.6
ML120A-066	111078	43	0.11419	0.00126	5.00629	0.17787	0.31797	0.01073	0.950	no	1867	20	1820	30	1780	52	5.4
ML120A-067	832425	138	0.18822	0.00196	13.11728	0.45204	0.50544	0.01660	0.953	no	2727	17	2688	32	2637	71	4.0
ML120A-068	132311	42	0.12240	0.00125	5.89426	0.19951	0.34926	0.01127	0.954	no	1991	18	1960	29	1931	54	3.5
ML120A-069	122557	54	0.08655	0.00092	2.65745	0.08864	0.22269	0.00704	0.948	no	1350	20	1317	24	1296	37	4.4
ML120A-071	578858	76	0.13192	0.00145	6.97585	0.27703	0.38352	0.01463	0.961	no	2124	19	2108	35	2093	68	1.7
ML120A-072	388141	58	0.18564	0.00192	13.16694	0.43306	0.51441	0.01606	0.949	no	2704	17	2692	31	2675	68	1.3
ML120A-073	206857	76	0.09320	0.00124	3.20437	0.11670	0.24936	0.00845	0.931	no	1492	25	1458	28	1435	43	4.2
ML120A-074	58742	75	0.06119	0.00084	0.83838	0.02903	0.09938	0.00316	0.917	no	646	29	618	16	611	18	5.7
ML120A-075	237389	90	0.19099	0.00197	13.63025	0.46381	0.51761	0.01678	0.953	no	2751	17	2724	32	2689	71	2.7
ML120A-082	213643	79	0.10923	0.00112	4.72910	0.16417	0.31399	0.01042	0.956	no	1787	18	1772	29	1760	51	1.7
ML120A-083	503019	102	0.12852	0.00131	6.59354	0.24563	0.37208	0.01334	0.962	no	2078	18	2058	32	2039	62	2.2
ML120A-084	513075	121	0.09386	0.00096	3.39224	0.11969	0.26212	0.00885	0.957	no	1505	19	1503	27	1501	45	0.3
ML120A-085	199050	137	0.08393	0.00092	2.55567	0.09324	0.22086	0.00769	0.954	no	1291	21	1288	26	1286	40	0.4

ML120A-086	186652	138	0.09771	0.00103	3.64390	0.14384	0.27048	0.01029	0.964	no	1581	20	1559	31	1543	52	2.7
ML120A-087	206257	162	0.08120	0.00089	2.16222	0.07718	0.19313	0.00656	0.952	no	1226	21	1169	24	1138	35	7.8
ML120A-089	44464	123	0.06155	0.00089	0.82256	0.03040	0.09692	0.00329	0.920	no	659	31	609	17	596	19	9.9
ML120A-090	70636	108	0.05908	0.00066	0.71390	0.02490	0.08764	0.00289	0.947	no	570	24	547	15	542	17	5.2
ML123A-096	107815	139	0.05924	0.00072	0.70283	0.02504	0.08605	0.00288	0.941	no	576	26	540	15	532	17	7.9
ML120A-097	264029	123	0.08043	0.00086	2.14884	0.07570	0.19377	0.00650	0.953	no	1208	21	1165	24	1142	35	5.9
ML120A-098	1361785	167	0.08245	0.00085	2.32820	0.08796	0.20480	0.00744	0.962	no	1256	20	1221	26	1201	40	4.8
ML120A-099	217094	146	0.09076	0.00104	2.88500	0.11730	0.23055	0.00899	0.959	no	1442	22	1378	30	1337	47	8.0
ML120A-100	56177	139	0.05920	0.00086	0.70738	0.02655	0.08667	0.00300	0.921	no	574	31	543	16	536	18	7.0
ML120A-101	363037	125	0.11265	0.00117	4.93476	0.18013	0.31772	0.01112	0.959	no	1843	19	1808	30	1779	54	4.0
ML120A-102	171408	103	0.09131	0.00097	3.03989	0.11057	0.24145	0.00840	0.957	no	1453	20	1418	27	1394	43	4.5
ML120A-103	1432600	101	0.16257	0.00165	10.42382	0.42836	0.46503	0.01852	0.969	no	2483	17	2473	37	2462	81	1.0
ML120A-105	726348	194	0.18742	0.00195	13.91766	0.50725	0.53858	0.01881	0.958	no	2720	17	2744	34	2777	78	-2.6
ML120A-111	160305	25	0.11200	0.00119	4.70969	0.17508	0.30498	0.01086	0.958	no	1832	19	1769	31	1716	53	7.2
ML120A-112	211089	38	0.11176	0.00119	4.77485	0.17121	0.30987	0.01061	0.955	no	1828	19	1780	30	1740	52	5.5
ML120A-113	414081	33	0.11052	0.00113	4.85443	0.17956	0.31857	0.01133	0.961	no	1808	18	1794	31	1783	55	1.6
ML120A-114	32778	35	0.05943	0.00090	0.74079	0.02636	0.09040	0.00291	0.905	no	583	33	563	15	558	17	4.5
ML120A-115	201253	29	0.10860	0.00116	4.55140	0.18111	0.30397	0.01166	0.964	no	1776	19	1740	33	1711	57	4.2
ML120A-116	704970	33	0.12606	0.00130	6.34038	0.22696	0.36478	0.01250	0.957	no	2044	18	2024	31	2005	59	2.2
ML120A-117	131596	20	0.10902	0.00117	4.67969	0.16001	0.31133	0.01011	0.950	no	1783	19	1764	28	1747	50	2.3
ML120A-118	1139382	138	0.18505	0.00192	13.41463	0.49160	0.52576	0.01848	0.959	no	2699	17	2709	34	2724	78	-1.1
ML120A-119	139888	28	0.05864	0.00068	0.71682	0.02662	0.08866	0.00313	0.950	no	554	25	549	16	548	18	1.2
ML120A-120	106665	31	0.11056	0.00117	4.68808	0.16933	0.30755	0.01062	0.956	no	1809	19	1765	30	1729	52	5.0
ML120A-127	330775	25	0.08768	0.00091	2.79904	0.10687	0.23154	0.00851	0.962	no	1375	20	1355	28	1343	44	2.6
ML120A-128	671609	39	0.09423	0.00096	3.24244	0.13790	0.24955	0.01031	0.971	no	1513	19	1467	32	1436	53	5.7
ML120A-129	3010958	75	0.09735	0.00102	3.56751	0.12938	0.26579	0.00923	0.957	no	1574	20	1542	28	1519	47	3.9
ML120A-130	95438	41	0.11053	0.00120	4.66702	0.16461	0.30623	0.01027	0.951	no	1808	20	1761	29	1722	51	5.4
ML120A-131	155875	51	0.07830	0.00084	2.01340	0.06937	0.18649	0.00611	0.951	no	1154	21	1120	23	1102	33	4.9
ML120A-132	258263	55	0.12806	0.00131	6.57885	0.24407	0.37259	0.01329	0.961	no	2072	18	2057	32	2042	62	1.7
ML120A-133	525532	66	0.10307	0.00105	4.10585	0.14141	0.28892	0.00950	0.955	no	1680	19	1655	28	1636	47	3.0
ML120A-134	105396	66	0.06171	0.00130	0.84218	0.03487	0.09898	0.00353	0.861	no	664	45	620	19	608	21	8.8
ML120A-135	840654	75	0.16128	0.00187	9.64292	0.34023	0.43365	0.01445	0.945	no	2469	19	2401	32	2322	65	7.1
ML120A-141	101768	54	0.07917	0.00085	2.01424	0.07162	0.18452	0.00625	0.953	no	1176	21	1120	24	1092	34	7.8
ML120A-142	212915	75	0.09557	0.00100	3.39216	0.12703	0.25743	0.00926	0.960	no	1539	20	1503	29	1477	47	4.6
ML120A-143	447990	77	0.09705	0.00100	3.59702	0.13502	0.26880	0.00970	0.961	no	1568	19	1549	29	1535	49	2.4
ML120A-144	783221	70	0.17654	0.00204	11.74393	0.44965	0.48247	0.01761	0.954	no	2621	19	2584	35	2538	76	3.8
ML120A-145	506263	87	0.08600	0.00089	2.64923	0.09145	0.22342	0.00736	0.954	no	1338	20	1314	25	1300	39	3.2
ML120A-146	64427	91	0.08558	0.00103	2.50896	0.08513	0.21263	0.00674	0.935	no	1329	23	1275	24	1243	36	7.1
ML120A-147	584911	94	0.16485	0.00190	9.94389	0.37876	0.43749	0.01588	0.953	no	2506	19	2430	35	2339	71	7.9
ML120A-148	842586	109	0.09129	0.00093	3.09609	0.10788	0.24597	0.00819	0.956	no	1453	19	1432	26	1418	42	2.7
ML120A-149	256605	100	0.07707	0.00087	1.94107	0.07042	0.18267	0.00630	0.951	no	1123	22	1095	24	1082	34	4.0
Discordance >10% or <-10%																	
ML120A-001	1111850	364	0.16913	0.00201	9.65406	0.56120	0.41400	0.02356	0.979	yes	2549	20	2402	52	2233	107	14.6
ML120A-002	572969	233	0.10671	0.00110	3.58720	0.14132	0.24381	0.00927	0.965	no	1744	19	1547	31	1406	48	21.5
ML120A-005	781483	223	0.20542	0.00250	11.92814	0.50796	0.42114	0.01719	0.958	no	2870	20	2599	39	2266	78	24.9
ML120A-006	414565	268	0.06844	0.00154	0.90203	0.03855	0.09559	0.00347	0.849	no	882	46	653	20	589	20	34.8
ML120A-008	1076466	1539	0.07073	0.00192	0.76886	0.03505	0.07883	0.00289	0.803	yes	950	55	579	20	489	17	50.3
ML120A-012	1984462	2437	0.09569	0.00180	2.81065	0.21626	0.21304	0.01589	0.969	yes	1542	35	1358	56	1245	84	21.1
ML120A-015	1086124	660	0.11314	0.00169	3.15832	0.22690	0.20247	0.01423	0.978	yes	1850	27	1447	54	1189	76	39.1
ML120A-019	41855	238	0.06405	0.00129	0.94232	0.03996	0.10670	0.00398	0.880	no	743	42	674	21	654	23	12.7
ML120A-029	1236272	984	0.18973	0.00248	10.80060	0.76264	0.41288	0.02865	0.983	yes	2740	21	2506	64	2228	129	22.0
ML120A-038	451447	1607	0.12186	0.00442	4.77574	0.25055	0.28423	0.01078	0.723	yes	1984	63	1781	43	1613	54	21.1
ML120A-047	349519	292	0.15437	0.00349	8.59735	0.35255	0.40392	0.01382	0.834	no	2395	38	2296	37	2187	63	10.2
ML120A-059	203220	36	0.06203	0.00070	0.81380	0.02882	0.09514	0.00319	0.948	no	675	24	605	16	586	19	13.9
ML120A-060	378315	129	0.11120	0.00131	4.22424	0.15195	0.27552	0.00936	0.945	no	1819	21	1679	29	1569	47	15.5
ML120A-070	701748	12284	0.10862	0.01736	0.15450	0.02581	0.01032	0.00050	0.291	yes	1776	266	146	22	66	3	96.7
ML120A-081	127595	104	0.06612	0.00104	0.99121	0.04547	0.10872	0.00469	0.940	no	810	32	699	23	665	27	18.8
ML120A-088	2701	104	0.05836	0.00482	0.92424	0.08876	0.11486	0.00564	0.511	no	543	171	665	46	701	33	-30.6
ML120A-104	513987	106	0.17502	0.00244	10.69254	0.48604	0.44310	0.01917	0.952	no	2606	23	2497	41	2364	85	11.1
ML120A-126	2411170	465	0.17444	0.00225	8.01774	0.29596	0.33335	0.01153	0.937	no	2601	21	2233	33	1855	56	32.9
ML120A-150	1998499	1906	0.16811	0.00210	8.82107	0.37113	0.38056	0.01529	0.955	yes	2539	21	2320	38	2079	71	21.2

ML120A

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	207Pb/206Pb	1 se	206Pb/238U	1 se
LH9415-001	*	0.114311	0.000151	0.335725	0.002220
LH9415-002	*	0.113969	0.000123	0.338236	0.002585
LH9415-003		0.113736	0.000129	0.334608	0.002288
LH9415-004		0.113550	0.000093	0.335948	0.002893
LH9415-005		0.113462	0.000087	0.333471	0.002487
LH9415-006		0.113391	0.000107	0.331341	0.002103
LH9415-007		0.113774	0.000144	0.331622	0.002664
LH9415-008		0.113063	0.000067	0.344787	0.002475
LH9415-010		0.113795	0.000181	0.320421	0.003344
LH9415-011		0.113888	0.000122	0.323320	0.002779
LH9415-020		0.113925	0.000121	0.340858	0.003794
LH9415-021		0.113164	0.000130	0.326895	0.001727
LH9415-022		0.114813	0.000127	0.311332	0.002260
LH9415-023		0.113825	0.000087	0.316163	0.001876
LH9415-024		0.113276	0.000124	0.321698	0.003555
LH9415-025		0.113626	0.000130	0.296519	0.002233
LH9415-030		0.113104	0.000106	0.312821	0.000918
LH9415-031		0.112673	0.000101	0.316254	0.001129
LH9415-032		0.112647	0.000099	0.323847	0.002862
LH9415-033		0.113094	0.000142	0.312215	0.001501
LH9415-034		0.112961	0.000078	0.312891	0.003176
LH9415-035		0.112870	0.000138	0.310211	0.001521
LH9415-036		0.112863	0.000109	0.309111	0.002676
LH9415-037		0.112620	0.000098	0.310950	0.002883
LH9415-060		0.113005	0.000113	0.305445	0.001830
LH9415-062		0.113151	0.000118	0.313613	0.002836
LH9415-076		0.112905	0.000119	0.307901	0.002400
LH9415-077		0.112733	0.000078	0.306270	0.003383
LH9415-091		0.113251	0.000127	0.304819	0.002395
LH9415-092		0.112734	0.000092	0.306527	0.002083
LH9415-106		0.112695	0.000113	0.305733	0.002168
LH9415-107		0.112496	0.000104	0.305576	0.002991
LH9415-121		0.113040	0.000111	0.308056	0.003968
LH9415-122		0.112791	0.000116	0.306791	0.002270
LH9415-136		0.112995	0.000124	0.303849	0.002122
LH9415-137		0.112857	0.000095	0.301720	0.002257
LH9415-151		0.113207	0.000102	0.296976	0.003004
LH9415-152		0.112964	0.000127	0.301615	0.002666
GJ1-001	*	0.061471	0.000107	0.096206	0.000839
GJ1-002		0.061167	0.000114	0.094016	0.000600
GJ1-003		0.061274	0.000188	0.093140	0.001394
GJ1-004		0.061445	0.000167	0.093562	0.000943
GJ132-10		0.061240	0.000143	0.093656	0.000765
GJ132-020		0.061299	0.000108	0.091183	0.000469
GJ1-021		0.061534	0.000185	0.091656	0.001420
GJ1-022	*	0.061392	0.000153	0.097103	0.000850
GJ132-030	*	0.063007	0.000193	0.091365	0.000723
GJ132-031		0.061376	0.000129	0.090891	0.000748
GJ132-033		0.061349	0.000118	0.090921	0.000795
GJ132-034		0.060610	0.000128	0.093392	0.000739
GJ1-036		0.060644	0.000107	0.092586	0.000728
GJ1-037		0.060890	0.000142	0.090796	0.000584
GJ132-063		0.061035	0.000114	0.091364	0.000848
GJ132-064		0.060886	0.000097	0.090137	0.000676
GJ132-078		0.060951	0.000135	0.090546	0.000897
GJ132-079		0.060870	0.000104	0.090726	0.000620
GJ132-093		0.061152	0.000131	0.090491	0.000639
GJ132-094		0.061107	0.000098	0.090781	0.000793
GJ132-108		0.061040	0.000122	0.090075	0.000835
GJ132-109		0.060782	0.000090	0.090580	0.000797
GJ132-123		0.060805	0.000146	0.090508	0.000585
GJ132-124		0.060948	0.000089	0.089744	0.000863
GJ132-138		0.060961	0.000160	0.090986	0.000628
GJ132-139		0.060974	0.000092	0.090225	0.000688

GJ132-153
GJ132-154

0.060964 0.000086
0.061143 0.000129

0.090388 0.000708
0.087936 0.000612

ML123A		Irish Grid		IS 9860 2036		Apparent age summary											
Isotopic ratios																	
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML123A-001	245458	18	0.12364	0.00127	6.12723	0.28188	0.35943	0.01612	0.975	no	2009	18	1994	39	1979	76	1.7
ML123A-002	135487	40	0.07926	0.00094	2.11366	0.12063	0.19340	0.01080	0.978	no	1179	23	1153	39	1140	58	3.6
ML123A-003	188961	23	0.10900	0.00116	4.85169	0.18783	0.32282	0.01201	0.961	no	1783	19	1794	32	1803	58	-1.3
ML123A-005	77086	22	0.08786	0.00098	2.98058	0.14075	0.24605	0.01129	0.971	no	1379	21	1403	35	1418	58	-3.1
ML123A-006	198294	26	0.19559	0.00202	14.12931	1.04787	0.52394	0.03848	0.990	no	2790	17	2758	68	2716	161	3.2
ML123A-012	167846	27	0.10949	0.00115	4.67376	0.20834	0.30958	0.01341	0.972	no	1791	19	1763	37	1739	66	3.3
ML123A-015	590974	30	0.18285	0.00188	13.05511	0.47215	0.51783	0.01796	0.959	no	2679	17	2684	34	2690	76	-0.5
ML123A-018	990379	38	0.10970	0.00118	4.53706	0.23670	0.29997	0.01531	0.978	no	20	1794	43	1738	1691	75	6.5
ML123A-019	134723	24	0.17848	0.00210	13.38215	0.66841	0.54379	0.02639	0.972	no	2639	19	2707	46	2799	109	-7.5
ML123A-020	471868	27	0.17429	0.00180	12.35474	0.59372	0.51413	0.02413	0.977	no	2599	17	2632	44	2674	102	-3.5
ML123A-021	50441	23	0.05882	0.00093	0.73780	0.04168	0.09097	0.00493	0.960	no	561	34	561	24	561	29	-0.1
ML123A-022	944835	44	0.17988	0.00183	13.24795	0.60260	0.53414	0.02368	0.975	no	2652	17	2697	42	2759	99	-5.0
ML123A-024	44695	24	0.05832	0.00089	0.75575	0.03187	0.09399	0.00370	0.932	no	542	33	572	18	579	22	-7.2
ML123A-025	175858	30	0.16347	0.00173	10.59351	0.47226	0.47000	0.02035	0.971	no	2492	18	2488	41	2484	89	0.4
ML123A-029	368531	63	0.06481	0.00072	1.06761	0.05842	0.11947	0.00640	0.979	no	768	23	738	28	727	37	5.6
ML123A-030	191098	23	0.19316	0.00270	14.44961	0.74069	0.54255	0.02675	0.962	no	2769	23	2780	48	2794	111	-1.1
ML123A-032	61954	22	0.05951	0.00092	0.79107	0.03767	0.09641	0.00434	0.945	no	586	33	592	21	593	25	-1.4
ML123A-033	24413	30	0.09032	0.00123	3.27410	0.16149	0.26291	0.01246	0.961	no	1432	26	1475	38	1505	63	-5.7
ML123A-034	217666	29	0.17953	0.00203	12.81427	0.50484	0.51767	0.01954	0.958	no	2649	19	2666	36	2689	82	-1.9
ML123A-036	235248	18	0.12709	0.00131	6.10085	0.31788	0.34816	0.01778	0.980	no	2058	18	1990	44	1926	84	7.4
ML123A-037	294861	16	0.17950	0.00195	12.92691	0.64185	0.52230	0.02531	0.976	no	2648	18	2674	46	2709	106	-2.8
ML123A-038	33008	13	0.05917	0.00106	0.71239	0.03904	0.08733	0.00452	0.945	no	573	38	546	23	540	27	6.1
ML123A-039	227738	5	0.06090	0.00073	0.82807	0.03694	0.09861	0.00424	0.963	no	636	26	613	20	606	25	4.9
ML123A-041	420699	21	0.09955	0.00102	3.83943	0.19791	0.27971	0.01413	0.980	no	1616	19	1601	41	1590	71	1.8
ML123A-042	46291	3	0.11877	0.00147	6.03087	0.29893	0.36826	0.01767	0.968	no	1938	22	1980	42	2021	83	-5.0
ML123A-043	138678	11	0.10233	0.00113	3.78691	0.19119	0.26840	0.01322	0.976	no	1667	20	1590	40	1533	67	9.0
ML123A-044	177704	14	0.07121	0.00079	1.62905	0.07336	0.16591	0.00724	0.969	no	964	23	981	28	990	40	-2.9
ML123A-045	263166	20	0.06007	0.00071	0.75056	0.03212	0.09063	0.00373	0.961	no	606	25	569	18	559	22	8.0
ML123A-047	116070	15	0.07900	0.00096	2.11444	0.09816	0.19412	0.00870	0.965	no	1172	24	1154	32	1144	47	2.6
ML123A-052	241982	44	0.18870	0.00193	13.73383	1.28304	0.52786	0.04902	0.994	no	2731	17	2732	85	2732	204	-0.1
ML123A-053	113279	34	0.05825	0.00085	0.74391	0.03277	0.09262	0.00385	0.944	no	539	31	565	19	571	23	-6.1
ML123A-055	73602	49	0.12632	0.00147	6.67045	0.54838	0.38297	0.03117	0.990	no	2047	20	2069	70	2090	144	-2.4
ML123A-057	639980	50	0.16634	0.00175	11.30020	0.87643	0.49272	0.03786	0.991	no	2521	18	2548	70	2582	161	-3.0
ML123A-058	442742	54	0.12793	0.00130	6.85458	0.49475	0.38861	0.02777	0.990	no	2070	18	2093	62	2116	128	-2.6
ML123A-064	252244	99	0.10821	0.00114	4.85249	0.37697	0.32524	0.02503	0.991	no	1769	19	1794	63	1815	121	-3.0
ML123A-068	159430	99	0.10920	0.00121	4.78771	0.38277	0.31798	0.02518	0.990	no	1786	20	1783	65	1780	122	0.4
ML123A-069	86239	94	0.07908	0.00092	2.26225	0.17093	0.20747	0.01549	0.988	no	1174	23	1201	52	1215	82	-3.8
ML123A-071	130197	42	0.07839	0.00087	2.05824	0.13251	0.19042	0.01207	0.985	no	1157	22	1135	43	1124	65	3.1
ML123A-076	177842	34	0.17070	0.00207	10.57672	0.72960	0.44937	0.03052	0.984	no	2565	20	2487	62	2392	134	8.0
ML123A-077	40981	43	0.05930	0.00114	0.75922	0.03512	0.09286	0.00391	0.910	no	578	41	574	20	572	23	1.0
ML123A-078	169969	43	0.17610	0.00183	11.69261	0.70713	0.48157	0.02869	0.985	no	2616	17	2580	55	2534	124	3.8
ML123A-079	1974017	81	0.18077	0.00184	11.73042	0.66876	0.47065	0.02640	0.984	no	2660	17	2583	52	2486	115	7.9
ML123A-080	52375	50	0.12107	0.00141	5.97513	0.34975	0.35795	0.02053	0.980	no	1972	21	1972	50	1972	97	0.0
ML123A-081	42402	51	0.05859	0.00120	0.74721	0.03718	0.09250	0.00420	0.912	no	552	44	567	21	570	25	-3.5
ML123A-082	141989	45	0.09630	0.00108	3.43219	0.19977	0.25849	0.01476	0.981	no	1554	21	1512	45	1482	75	5.1
ML123A-085	50956	23	0.05961	0.00120	0.80851	0.03947	0.09838	0.00438	0.912	no	589	43	602	22	605	26	-2.8
ML123A-088	26823	34	0.05861	0.00156	0.78946	0.03702	0.09769	0.00377	0.824	no	553	57	591	21	601	22	-9.1
ML123A-090	84054	43	0.09287	0.00104	3.21586	0.21276	0.25113	0.01637	0.985	no	1485	21	1461	50	1444	84	3.1
ML123A-091	648810	84	0.19725	0.00258	13.56842	1.13619	0.49889	0.04126	0.988	no	2804	21	2720	76	2609	175	8.4
ML123A-092	58694	33	0.12731	0.00140	6.49299	0.41216	0.36991	0.02313	0.985	no	2061	19	2045	54	2029	108	1.8
ML123A-093	145834	45	0.12330	0.00127	6.59246	0.41802	0.38778	0.02426	0.987	no	2005	18	2058	54	2113	112	-6.3
ML123A-094	45558	33	0.06137	0.00128	0.84776	0.05835	0.10019	0.00657	0.953	no	652	44	623	32	616	38	5.9
ML123A-095	135724	28	0.06417	0.00090	1.01415	0.06610	0.11463	0.00730	0.977	no	747	29	711	33	700	42	6.7
ML123A-096	124317	33	0.10929	0.00120	4.68981	0.32278	0.31122	0.02115	0.987	no	1788	20	1765	56	1747	103	2.6
ML123A-097	141417	50	0.05981	0.00107	0.77141	0.03158	0.09354	0.00344	0.899	no	597	38	581	18	576	20	3.5
ML123A-098	22082	36	0.05713	0.00128	0.67570	0.04007	0.08578	0.00471	0.926	no	497	49	524	24	531	28	-7.1
ML123A-099	45521	49	0.12385	0.00153	5.82346	0.41757	0.34101	0.02409	0.985	no	2012	22	1950	60	1892	115	6.9

ML123A-102	528146	64	0.18637	0.00190	12.98179	0.81913	0.50518	0.03146	0.987	no	2710	17	2678	58	2636	133	3.3
ML123A-105	665623	63	0.17847	0.00181	12.06700	0.85258	0.49039	0.03429	0.990	no	2639	17	2610	64	2572	147	3.0
ML123A-106	74916	63	0.09308	0.00134	3.25386	0.20126	0.25353	0.01525	0.973	no	1490	27	1470	47	1457	78	2.5
ML123A-108	77245	62	0.05808	0.00107	0.65944	0.02677	0.08234	0.00298	0.891	no	533	40	514	16	510	18	4.4
ML123A-109	60717	68	0.06032	0.00121	0.80220	0.03945	0.09645	0.00433	0.914	no	615	43	598	22	594	25	3.7
ML123A-110	148938	67	0.18536	0.00194	12.67679	0.74456	0.49601	0.02866	0.984	no	2701	17	2656	54	2597	122	4.7
ML12A-111	325556	55	0.12166	0.00125	5.98332	0.40610	0.35668	0.02393	0.989	no	1981	18	1973	57	1966	113	0.8
ML12A-112	446817	61	0.17876	0.00188	11.71449	0.71685	0.47529	0.02865	0.985	no	2641	17	2582	56	2507	124	6.1
ML12A-113	208259	58	0.06238	0.00110	0.99421	0.05441	0.11560	0.00599	0.947	no	687	37	701	27	705	35	-2.8
ML12A-114	87323	75	0.07942	0.00124	2.12027	0.11521	0.19362	0.01007	0.958	no	1183	31	1155	37	1141	54	3.9
ML12A-115	68064	52	0.12718	0.00149	6.49389	0.37216	0.37031	0.02077	0.979	no	2059	21	2045	49	2031	97	1.6
ML12A-118	211407	52	0.12444	0.00132	6.27141	0.36334	0.36550	0.02082	0.983	no	2021	19	2014	50	2008	98	0.7
ML12A-120	53402	46	0.05919	0.00113	0.78765	0.03767	0.09650	0.00423	0.917	no	574	41	590	21	594	25	-3.6
ML123A-121	59923	38	0.05980	0.00115	0.80413	0.04649	0.09753	0.00532	0.944	no	599	41	596	26	600	31	-0.6
ML123A-128	23620	83	0.05898	0.00134	0.78721	0.04363	0.09680	0.00489	0.911	no	566	49	590	24	596	29	-5.4
Discordance >10% or <10%																	
ML123A-004	10014	32	0.12071	0.00273	7.33307	0.50068	0.44061	0.02839	0.944	no	1967	40	2153	59	2353	126	-23.5
ML123A-007	466690	439	0.10921	0.00218	3.25757	0.22273	0.21634	0.01415	0.956	yes	1786	36	1471	52	1263	75	32.2
ML123A-008	34414	20	0.06117	0.00135	0.74080	0.03595	0.08784	0.00380	0.890	no	645	47	563	21	543	22	16.6
ML123A-009	13104	20	0.08545	0.00155	3.24707	0.14881	0.27559	0.01159	0.918	no	1326	35	1468	35	1569	58	-20.7
ML123A-010	3887	19	0.03234	0.00436	0.45025	0.06341	0.10096	0.00413	0.291	no	-934	355	377	43	620	24	174.9
ML123A-011	15090	26	0.05256	0.00130	0.70076	0.03060	0.09670	0.00348	0.825	no	310	55	539	18	595	20	-96.5
ML123A-013	29727	12	0.05607	0.00099	0.66608	0.02930	0.08616	0.00347	0.915	no	455	39	518	18	533	21	-17.8
ML123A-014	474844	2575	0.12564	0.00594	2.40676	0.17697	0.13893	0.00782	0.766	yes	2038	81	1245	51	839	44	62.6
ML123A-016	21974	23	0.05614	0.00114	0.74715	0.04154	0.09652	0.00500	0.931	no	458	44	567	24	594	29	-31.1
ML123A-017	200208	96	0.07036	0.00121	1.04480	0.06418	0.10769	0.00635	0.960	no	939	35	726	31	659	37	31.3
ML123A-023	171485	56	0.13166	0.00140	6.28199	0.37699	0.34604	0.02044	0.984	no	2120	19	2016	51	1916	97	11.1
ML123A-026	1067025	159	0.16156	0.00187	8.81472	0.45819	0.39571	0.02005	0.975	no	2472	19	2319	46	2149	92	15.3
ML123A-027	188036	30	0.18868	0.00325	15.61528	0.70827	0.60023	0.02519	0.925	no	2731	28	2854	42	3031	101	-13.8
ML123A-028	1209423	99	0.10697	0.00109	4.04097	0.28806	0.27399	0.01933	0.990	no	1748	18	1642	56	1561	97	12.1
ML123A-031	379057	672	0.08682	0.00271	1.35629	0.07589	0.11330	0.00526	0.829	yes	1356	59	870	32	692	30	51.6
ML123A-035	2043	19	0.01756	0.00705	0.26953	0.10907	0.11129	0.00588	0.131	no	-3251	1437	242	84	680	34	128.1
ML123A-046	235053	646	0.07006	0.00444	0.98295	0.07110	0.10176	0.00356	0.483	yes	930	125	695	36	625	21	34.4
ML123A-048	5896	17	0.03829	0.00341	0.50422	0.05117	0.09549	0.00464	0.479	no	-465	221	415	34	588	27	237.3
ML123A-049	62219	21	0.09009	0.00119	2.62339	0.18745	0.21119	0.01483	0.983	no	1427	25	1307	51	1235	78	14.8
ML123A-050	70911	30	0.06002	0.00141	0.70681	0.04558	0.08541	0.00513	0.931	no	604	50	543	27	528	30	13.1
ML123A-051	57696	35	0.05728	0.00099	0.72211	0.03821	0.09144	0.00457	0.945	no	502	38	552	22	564	27	-12.8
ML123A-054	13784	38	0.04717	0.00214	0.65375	0.03983	0.10053	0.00408	0.666	no	58	105	511	24	617	24	-1019.4
ML123A-056	729077	484	0.16367	0.00399	6.45871	0.63128	0.28620	0.02709	0.968	yes	2494	41	2040	82	1623	134	39.4
ML123A-059	39372	63	0.06086	0.00225	0.78041	0.05110	0.09300	0.00502	0.825	no	634	78	586	29	573	30	10.1
ML123A-060	245166	113	0.12435	0.00142	5.53067	0.46357	0.32258	0.02679	0.991	no	2020	20	1905	70	1802	129	12.3
ML123A-061	82808	70	0.05851	0.00095	0.80913	0.03848	0.10029	0.00448	0.940	no	549	35	602	21	616	26	-12.8
ML123A-062	33281	67	0.05406	0.00105	0.66191	0.03731	0.08880	0.00470	0.938	no	374	43	516	23	548	28	-48.8
ML123A-063	67344	129	0.07179	0.00414	1.07260	0.10807	0.10835	0.00895	0.820	no	980	113	740	52	663	52	34.0
ML123A-065	103547	129	0.08715	0.00125	2.47271	0.20431	0.20579	0.01675	0.985	no	1364	27	1264	58	1206	89	12.6
ML123A-066	1075625	176	0.15551	0.00205	7.47685	0.70656	0.34870	0.03263	0.990	no	2407	22	2170	81	1928	154	23.0
ML123A-067	34132	87	0.05387	0.00108	0.64906	0.02962	0.08738	0.00358	0.898	no	366	45	508	18	540	21	-49.6
ML123A-070	31030	87	0.05377	0.00115	0.65417	0.02891	0.08823	0.00341	0.874	no	362	48	511	18	545	20	-53.0
ML123A-072	738109	169	0.06103	0.00119	0.78530	0.05331	0.09332	0.00607	0.958	no	640	42	589	30	575	36	10.7
ML123A-073	25881	40	0.05647	0.00124	0.73865	0.02962	0.09486	0.00318	0.836	no	471	48	562	17	584	19	-25.1
ML123A-074	158576	28	0.12150	0.00132	4.78923	0.27701	0.28587	0.01624	0.982	no	1978	19	1783	47	1621	81	20.4
ML123A-075	42262	50	0.06146	0.00173	0.81149	0.03673	0.09575	0.00339	0.782	no	656	59	603	20	589	20	10.5
ML123A-083	229155	78	0.06186	0.00114	0.78595	0.05630	0.09215	0.00638	0.967	no	669	39	589	32	568	38	15.8
ML123A-084	381292	26	0.17385	0.00182	10.39418	0.75030	0.43363	0.03097	0.989	no	2595	17	2471	65	2322	138	12.5
ML123A-086	2178668	1242	0.18116	0.00353	4.20225	0.38882	0.16824	0.01522	0.978	yes	2663	32	1674	73	1002	83	67.1
ML123A-087	81969	41	0.08667	0.00122	2.48329	0.15665	0.20780	0.01278	0.975	no	1353	27	1267	45	1217	68	11.0
ML123A-089	240397	173	0.10606	0.00596	1.78820	0.20370	0.12228	0.01212	0.870	no	1733	100	1041	72	744	69	60.3
ML123A-100	17408	46	0.05614	0.00144	0.75985	0.03654	0.09817	0.00399	0.846	no	458	56	574	21	604	23	-33.4
ML123A-101	4633	59	0.04358	0.00342	0.65068	0.05658	0.10829	0.00406	0.931	no	-135	184	509	34	663	24	624.4
ML123A-103	1510899	1513	0.13882	0.00194	2.20156	0.15965	0.11502	0.00818	0.981	yes	2213	24	1182	49	702	47	71.9
ML123A-107	31933	68	0.06237	0.00208	0.80002	0.05479	0.09303	0.00556	0.873	no	687	70	597	30	573	33	17.2
ML12A-116	82965	58	0.06004	0.00116	0.72331	0.03830	0.08738	0.00431	0.931	no	605	41	553	22	540	25	11.2
ML12A-117	154577	98	0.12654	0.00141	4.80342	0.38498	0.27532	0.02185	0.990	no	2050	20	1785	65	1568	110	26.5

ML12A-119	56035	53	0.05960	0.00119	0.70121	0.02846	0.08534	0.00301	0.870	no	589	43	540	17	528	18	10.8
ML123A-122	438065	395	0.11197	0.00510	1.82129	0.15880	0.11797	0.00877	0.853	yes	1832	80	1053	56	719	50	64.1
ML123A-123	20300	35	0.05599	0.00135	0.70095	0.02985	0.09080	0.00318	0.823	no	452	53	539	18	560	19	-25.0
ML123A-124	32989	42	0.05669	0.00133	0.68559	0.03196	0.08771	0.00353	0.864	no	479	51	530	19	542	21	-13.6
ML123A-125	9580	39	0.05095	0.00156	0.74784	0.03971	0.10645	0.00462	0.818	no	239	69	567	23	652	27	-182.2
ML123A-126	28430	56	0.08892	0.00164	2.49905	0.23347	0.20383	0.01867	0.980	no	1402	35	1272	66	1196	99	16.1
ML123A-127	99316	140	0.07382	0.00144	0.91391	0.07482	0.08979	0.00714	0.971	no	1037	39	659	39	554	42	48.5
ML123A-129	13911	72	0.05728	0.00170	0.85654	0.04389	0.10845	0.00453	0.816	no	502	64	628	24	664	26	-33.8
ML123A-130	54824	86	0.07185	0.00098	1.37311	0.07836	0.13861	0.00768	0.971	no	982	28	877	33	837	43	15.7
ML123A-104	926	51	-0.00941	-0.01670	-0.14457	-0.25680	0.11146	0.00670	0.034	no	Discarded: not zircon						

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	207Pb/206Pb	1 se	206Pb/238U	1 se
LH9415-01	*	0.117452	0.000162	0.291343	0.004403
LH9415-02	*	0.116856	0.000214	0.289020	0.005901
LH9415-03	*	0.116646	0.000280	0.292429	0.003588
LH9415-04		0.116580	0.000256	0.292605	0.005331
LH9415-05		0.118094	0.000234	0.284753	0.005880
LH9415-06		0.117645	0.000207	0.287278	0.004297
LH9415-07		0.118003	0.000186	0.287163	0.005048
LH9415-08		0.118008	0.000252	0.280932	0.004474
LH9415-09		0.118174	0.000209	0.289868	0.005009
LH9415-11		0.118132	0.000203	0.283123	0.005322
LH9415-12	*	0.117930	0.000245	0.270706	0.011364
LH9415-13		0.118354	0.000216	0.288185	0.007004
LH9415-14		0.118042	0.000297	0.290793	0.004414
LH9415-15		0.118548	0.000208	0.279940	0.003171
LH9415-16		0.117864	0.000193	0.287917	0.003867
LH9415-17		0.118100	0.000294	0.274625	0.005139
LH9415-18		0.118184	0.000187	0.298226	0.004045
LH9415-19		0.117974	0.000247	0.295409	0.002802
LH9415-20		0.117823	0.000181	0.297610	0.003207
LH9415-21		0.118804	0.000213	0.301109	0.003823
LH9415-22		0.118560	0.000128	0.294408	0.004556
LH9415-23		0.118247	0.000193	0.318482	0.003128
LH9415-24		0.118018	0.000099	0.313192	0.003173
LH9415-25		0.117702	0.000260	0.308161	0.003770
LH9415-26	*	0.117732	0.000165	0.336024	0.005369
LH9415-27		0.118096	0.000209	0.315148	0.003301
LH9415-28		0.117596	0.000254	0.317496	0.003357
LH9415-29		0.117955	0.000206	0.314112	0.003199
LH9415-30		0.117796	0.000194	0.314142	0.003426
LH9415-31		0.117117	0.000198	0.309962	0.003490
LH9415-32		0.117292	0.000177	0.305322	0.005889
LH9415-33		0.117328	0.000148	0.295344	0.003205
LH9415-34		0.116841	0.000166	0.307858	0.006898
GJ1-1	*	0.062381	0.000212	0.083040	0.001910
GJ1-2		0.062058	0.000297	0.087503	0.001110
GJ1-3		0.061822	0.000409	0.088941	0.001821
GJ1-4		0.061685	0.000326	0.087282	0.001882
GJ132-05		0.061929	0.000335	0.086572	0.001890
GJ132-06		0.061910	0.000179	0.088077	0.001897
GJ132-07		0.062263	0.000273	0.086868	0.000983
GJ132-08		0.062494	0.000264	0.085737	0.002387
GJ132-09		0.062566	0.000213	0.085788	0.000915
GJ132-10		0.062521	0.000264	0.087713	0.001406
GJ132-11		0.062804	0.000256	0.089919	0.001965
GJ132-12		0.061780	0.000292	0.088479	0.001558
GJ132-13		0.062188	0.000392	0.087602	0.000888
GJ132-14		0.062281	0.000477	0.085425	0.000929
GJ132-15		0.062091	0.000269	0.088389	0.001831

GJ132-16	0.062270	0.000262	0.088147	0.001176
GJ132-17	0.062382	0.000226	0.087892	0.001128
GJ132-18	0.061882	0.000299	0.086133	0.000937
GJ132-19	0.062088	0.000239	0.086242	0.001126
GJ132-20	0.062252	0.000224	0.089389	0.000887
GJ132-21	0.063246	0.000187	0.088850	0.001447
GJ132-22	0.062908	0.000160	0.088252	0.001294
GJ132-23	0.063171	0.000166	0.087638	0.000945
GJ132-24	0.062550	0.000126	0.088943	0.000568
GJ132-25	0.062293	0.000273	0.088554	0.000883
GJ132-26	0.061725	0.000317	0.089661	0.001082
GJ132-27	0.062924	0.000325	0.088580	0.000677
GJ132-28	0.061485	0.000359	0.090757	0.000868
GJ132-29	0.062491	0.000303	0.088152	0.000684
GJ132-30	0.062431	0.000248	0.089262	0.000677
GJ132-31	0.062808	0.000351	0.090243	0.000910
GJ132-32	0.062185	0.000433	0.090000	0.001183
GJ132-33	0.062355	0.000471	0.089056	0.001309
GJ132-34	0.063286	0.000478	0.088310	0.001686

ML124A		British Grid IT 0125 2326		Apparent age summary													
Isotopic ratios				Apparent age summary													
sample name	²⁰⁶ Pb (cps)	²⁰⁴ Pb (cps)	²⁰⁷ Pb/ ²⁰⁶ Pb	2 σ	²⁰⁷ Pb/ ²³⁵ U	2 σ	²⁰⁶ Pb/ ²³⁸ U	2 σ	ρ	Com Pb corrected?	age (Ma) ²⁰⁷ Pb*/ ²⁰⁶ Pb*	error (Ma) 2 σ	age (Ma) ²⁰⁷ Pb*/ ²³⁵ U	error (Ma) 2 σ	age (Ma) ²⁰⁶ Pb*/ ²³⁸ U	error (Ma) 2 σ	discordance %
Better than ± 10% discordant																	
ML124A-006	24048	133	0.05945	0.00213	0.82328	0.05061	0.10044	0.00501	0.812	no	583	76	610	28	617	29	-6.0
ML124A-007	75788	130	0.07659	0.00098	1.92750	0.09294	0.18253	0.00849	0.964	no	1110	25	1091	32	1081	46	2.9
ML124A-009	50247	141	0.06074	0.00084	0.85911	0.04337	0.10258	0.00498	0.962	no	630	29	630	23	630	29	0.1
ML124A-010	65380	157	0.06051	0.00075	0.84073	0.04144	0.10076	0.00481	0.968	no	622	26	620	23	619	28	0.5
ML124A-011	462102	191	0.18481	0.00224	13.73784	0.66583	0.53912	0.02530	0.968	no	2697	20	2732	45	2780	105	-3.8
ML124A-014	157275	216	0.18094	0.00196	13.45968	0.60762	0.53951	0.02365	0.971	no	2662	18	2712	42	2781	98	-5.5
ML124A-015	30658	211	0.09226	0.00117	3.29945	0.12910	0.25936	0.00961	0.946	no	1473	24	1481	30	1487	49	-1.0
ML124A-017	70018	217	0.06035	0.00086	0.88489	0.04561	0.10634	0.00527	0.961	no	616	31	644	24	651	31	-6.0
ML124A-018	66580	247	0.13100	0.00141	6.88011	0.26884	0.38091	0.01431	0.961	no	2111	19	2096	34	2081	66	1.7
ML124A-020	55601	270	0.06033	0.00087	0.84664	0.04313	0.10177	0.00497	0.960	no	616	31	623	23	625	29	-1.6
ML124A-021	18064	50	0.06340	0.00535	0.95630	0.09345	0.10939	0.00538	0.504	no	722	170	681	47	669	31	7.7
ML124A-023	68217	45	0.07933	0.00094	2.17001	0.09499	0.19840	0.00836	0.963	no	1180	23	1171	30	1167	45	1.3
ML124A-024	85323	41	0.05973	0.00079	0.81854	0.04128	0.09939	0.00484	0.965	no	594	29	607	23	611	28	-3.0
ML124A-025	115738	19	0.09320	0.00098	3.34807	0.13597	0.26055	0.01022	0.966	no	1492	20	1492	31	1493	52	-0.1
ML124A-026	34843	13	0.12928	0.00155	6.79024	0.26464	0.38095	0.01413	0.952	no	2088	21	2084	34	2081	66	0.4
ML124A-027	74160	4	0.05809	0.00082	0.70612	0.03587	0.08816	0.00430	0.961	no	533	31	542	21	545	25	-2.2
ML124A-030	184977	2	0.05889	0.00067	0.76041	0.03913	0.09365	0.00470	0.975	no	563	24	574	22	577	28	-2.6
ML124A-033	100970	4	0.06014	0.00110	0.86712	0.03435	0.10456	0.00367	0.886	no	609	39	634	19	641	21	-5.6
ML124A-035	42954	6	0.18209	0.00219	11.75849	0.99009	0.46833	0.03903	0.990	no	2672	20	2585	76	2476	169	8.8
ML124A-038	212874	15	0.19432	0.00203	14.72686	0.64862	0.54966	0.02352	0.971	no	2779	17	2798	41	2824	97	-2.0
ML124A-039	29699	36	0.05808	0.00131	0.73376	0.03112	0.09164	0.00330	0.848	no	533	48	559	18	565	19	-6.4
ML124A-040	88581	14	0.07141	0.00079	1.67508	0.07826	0.17012	0.00772	0.971	no	969	22	999	29	1013	42	-4.8
ML124A-041	59262	81	0.06335	0.00121	1.00039	0.04861	0.11454	0.00512	0.919	no	720	40	704	24	699	30	3.1
ML124A-042	83186	50	0.06103	0.00125	0.84204	0.03327	0.10007	0.00338	0.855	no	640	43	620	18	615	20	4.2
ML124A-043	123842	33	0.09408	0.00100	3.51690	0.15361	0.27112	0.01149	0.970	no	1510	20	1531	34	1547	58	-2.7
ML124A-044	217484	31	0.07899	0.00086	2.23527	0.09428	0.20523	0.00836	0.966	no	1172	21	1192	29	1203	45	-2.9
ML124A-047	43281	185	0.09396	0.00121	3.40164	0.15066	0.26258	0.01113	0.957	no	1507	24	1505	34	1503	57	0.3
ML124A-049	77955	52	0.13397	0.00150	7.42432	0.31111	0.40194	0.01623	0.964	no	2151	19	2164	37	2178	74	-1.5
ML124A-051	61684	92	0.07130	0.00099	1.54178	0.06574	0.15684	0.00632	0.946	no	966	28	947	26	939	35	3.0
ML124A-053	45345	138	0.07483	0.00094	1.83367	0.07513	0.17773	0.00693	0.951	no	1064	25	1058	27	1055	38	0.9
ML124A-058	76453	189	0.06509	0.00088	1.13911	0.05147	0.12693	0.00547	0.954	no	777	28	772	24	770	31	0.9
ML124A-059	27593	197	0.05923	0.00140	0.73027	0.03178	0.08942	0.00327	0.840	no	576	50	557	18	552	19	4.2
ML124A-060	33563	176	0.06041	0.00119	0.82061	0.03282	0.09852	0.00342	0.869	no	618	42	608	18	606	20	2.1
ML124A-62	128921	0	0.09396	0.00101	3.44660	0.14161	0.26605	0.01055	0.965	no	1507	20	1515	32	1521	54	-1.0
ML124A-64	73040	11	0.09436	0.00138	3.30061	0.15605	0.25369	0.01141	0.951	no	1515	27	1481	36	1457	58	4.3
ML124A-65	83088	0	0.08732	0.00108	2.89014	0.12651	0.24006	0.01008	0.959	no	1367	24	1379	34	1387	52	-1.6
ML124A-67	89727	0	0.08734	0.00100	3.00742	0.13697	0.24974	0.01101	0.968	no	1368	22	1410	34	1437	57	-5.6
ML124A-69	71314	0	0.09315	0.00122	3.42368	0.16400	0.26656	0.01228	0.962	no	1491	25	1510	37	1523	62	-2.4
ML124A-072	12173	95	0.06241	0.00831	0.87497	0.12230	0.10168	0.00430	0.303	no	688	261	638	64	624	25	9.7
ML124A-073	105945	60	0.06047	0.00106	0.87991	0.03783	0.10553	0.00414	0.913	no	621	37	641	20	647	24	-4.4
ML124A-079	29721	99	0.13039	0.00170	6.90114	0.25412	0.38386	0.01322	0.936	no	2103	23	2099	32	2094	61	0.5
ML124A-080	79205	89	0.09410	0.00151	3.50136	0.12780	0.26987	0.00885	0.899	no	1510	30	1528	28	1540	45	-2.2
ML124A-82	30030	135	0.06153	0.00202	0.91013	0.04502	0.10728	0.00397	0.747	no	658	69	657	24	657	23	0.1
ML124A-84	23463	122	0.05874	0.00163	0.72884	0.03624	0.09000	0.00371	0.829	no	557	59	556	21	556	22	0.3
ML124A-86	79235	126	0.06218	0.00113	1.02850	0.04328	0.11997	0.00456	0.902	no	680	38	718	21	730	26	-7.8
ML124A-87	56324	142	0.06013	0.00116	0.86508	0.03607	0.10434	0.00386	0.887	no	608	41	633	19	640	22	-5.5
ML124A-88	491976	120	0.18089	0.00193	12.08897	0.47049	0.48470	0.01814	0.962	no	2661	18	2611	36	2548	78	5.2
ML124A-89	102833	160	0.05837	0.00111	0.77380	0.03355	0.09615	0.00374	0.898	no	544	41	582	19	592	22	-9.3
ML124A-90	115878	133	0.08114	0.00095	2.31957	0.10448	0.20733	0.00902	0.966	no	1225	23	1218	31	1215	48	0.9
ML124A-093	100043	141	0.06056	0.00107	0.83006	0.03432	0.09941	0.00371	0.903	no	624	38	614	19	611	22	2.1
ML124A-095	51139	164	0.06088	0.00107	0.90406	0.04614	0.10771	0.00516	0.938	no	635	38	654	24	659	30	-4.1
ML124A-096	91691	180	0.06179	0.00167	0.86464	0.04211	0.10149	0.00411	0.831	no	667	57	633	23	623	24	6.9
ML124A-098	181806	200	0.12512	0.00133	6.31064	0.25172	0.36581	0.01406	0.964	no	2030	19	2020	34	2010	66	1.2
ML124A-099	155847	192	0.10991	0.00117	5.11895	0.18393	0.33779	0.01160	0.955	no	1798	19	1839	30	1876	56	-5.0
Discordance >10% or <-10%																	
ML124A-001	18753	116	0.05748	0.00137	0.81203	0.04320	0.10245	0.00487	0.893	no	510	52	604	24	629	28	-24.4
ML124A-002	22037	112	0.05817	0.00104	0.83086	0.04405	0.10359	0.00517	0.942	no	536	39	614	24	635	30	-19.4
ML124A-003	9822	79	0.05284	0.00156	0.70263	0.04039	0.09644	0.00476	0.858	no	322	66	540	24	594	28	-88.3
ML124A-004	16603	106	0.05812	0.00168	0.91580	0.05394	0.11429	0.00587	0.872	no	534	62	660	28	698	34	-32.3
ML124A-005	9804	105	0.05363	0.00173	0.73746	0.04329	0.09974	0.00489	0.835	no	355	71	561	25	613	29	-76.0

ML124A-008	7461	157	0.05224	0.00239	0.74366	0.05060	0.10324	0.00520	0.740	no	296	101	565	29	633	30	-119.7
ML124A-012	12009	282	0.05442	0.00199	0.78192	0.05012	0.10421	0.00549	0.821	no	388	80	587	28	639	32	-67.8
ML124A-013	38046	224	0.05740	0.00086	0.73286	0.03725	0.09261	0.00450	0.955	no	507	33	558	22	571	26	-13.2
ML124A-016	12062	251	0.05321	0.00177	0.73723	0.04463	0.10049	0.00508	0.836	no	338	74	561	26	617	30	-86.8
ML124A-019	9011	231	0.05423	0.00233	0.89666	0.05722	0.11992	0.00566	0.740	no	381	94	650	30	730	33	-97.2
ML124A-022	152258	58	0.06262	0.00104	0.81636	0.06025	0.09455	0.00680	0.974	no	695	35	606	33	582	40	17.0
ML124A-028	15324	2	0.05386	0.00144	0.70919	0.03900	0.09550	0.00459	0.874	no	365	59	544	23	588	27	-63.8
ML124A-029	283615	2	0.09977	0.00374	2.49293	0.24497	0.18122	0.01646	0.924	no	1620	68	1270	69	1074	89	36.6
ML124A-031	20012	16	0.06245	0.00156	0.86102	0.03950	0.10000	0.00385	0.838	no	689	52	631	21	614	22	11.4
ML124A-032	68536	8	0.06483	0.00083	1.01236	0.04475	0.11325	0.00479	0.957	no	769	27	710	22	692	28	10.6
ML124A-034	23339	5	0.05697	0.00136	0.71302	0.02986	0.09077	0.00312	0.821	no	490	52	547	18	560	18	-14.8
ML124A-037	14870	1	0.05571	0.00144	0.70881	0.03076	0.09228	0.00321	0.802	no	441	57	544	18	569	19	-30.4
ML124A-045	10644	32	0.05669	0.00215	0.78765	0.04243	0.10076	0.00386	0.711	no	480	82	590	24	619	23	-30.5
ML124A-046	14005	36	0.05750	0.00160	0.79789	0.03613	0.10064	0.00359	0.788	no	511	60	596	20	618	21	-22.1
ML124A-048	86272	71	0.06508	0.00178	0.89632	0.04784	0.09989	0.00458	0.858	no	777	57	650	25	614	27	22.0
ML124A-050	1747	80	0.04068	0.00809	0.60772	0.12420	0.10835	0.00514	0.232	no	-308	44	482	76	663	30	332.6
ML124A-052	163029	334	0.07719	0.00279	0.99295	0.05435	0.09330	0.00384	0.752	no	1126	70	700	27	575	23	51.1
ML124A-054	161096	132	0.10781	0.00121	4.16987	0.40890	0.28052	0.02733	0.993	no	1763	20	1668	77	1594	136	10.8
ML124A-055	16101	143	0.05892	0.00164	0.90433	0.04137	0.11132	0.00404	0.792	no	564	60	654	22	680	23	-21.7
ML124A-056	2366	115	0.05478	0.00760	0.82696	0.12274	0.10949	0.00579	0.356	no	403	284	612	66	670	34	-69.6
ML124A-057	10233	146	0.05816	0.00323	0.82267	0.05333	0.10260	0.00344	0.518	no	536	117	610	29	630	20	-18.4
ML124A-61	17983	0	0.05436	0.00143	0.75095	0.03463	0.10019	0.00380	0.822	no	386	58	569	20	616	22	-62.3
ML124A-63	159850	0	0.08888	0.00211	2.50343	0.30638	0.20427	0.02453	0.981	no	1402	45	1273	85	1198	130	15.9
ML124A-66	25933	0	0.05578	0.00117	0.69256	0.03208	0.09005	0.00372	0.891	no	444	46	534	19	556	22	-26.4
ML124A-68	108101	0	0.06134	0.00208	0.80125	0.04003	0.09473	0.00348	0.735	no	651	71	598	22	583	20	10.9
ML124A-70	17666	0	0.05657	0.00177	0.76637	0.03931	0.09825	0.00399	0.792	no	475	68	578	22	604	23	-28.5
ML124A-071	13148	38	0.05674	0.00162	0.78617	0.03687	0.10050	0.00374	0.794	no	481	62	589	21	617	22	-29.6
ML124A-074	25413	77	0.06480	0.00236	0.94013	0.05339	0.10522	0.00459	0.768	no	768	75	673	28	645	27	16.8
ML124A-075	5830	73	0.05165	0.00262	0.70647	0.04571	0.09920	0.00399	0.621	no	270	112	543	27	610	23	-131.8
ML124A-076	222018	112	0.06407	0.00147	0.86046	0.04315	0.09740	0.00434	0.889	no	744	48	630	23	599	25	20.4
ML124A-077	12924	77	0.05771	0.00181	0.91021	0.04599	0.11439	0.00454	0.785	no	519	67	657	24	698	26	-36.5
ML124A-078	26846	82	0.05748	0.00120	0.76015	0.03412	0.09591	0.00381	0.885	no	510	45	574	19	590	22	-16.5
ML124A-81	72	100	0.91529	0.43659	-1.42024	-7.17317	-0.01125	-0.05659	0.996	no	5113	545	#VALUE!	#VALUE!	-73	-380	100.9
ML124A-83	15700	122	0.05891	0.00145	0.93811	0.04126	0.11550	0.00421	0.829	no	564	53	672	21	705	24	-26.4
ML124A-85	20928	119	0.05716	0.00137	0.72558	0.03454	0.09206	0.00378	0.863	no	498	52	554	20	568	22	-14.7
ML124A-091	11015	153	0.05882	0.00171	0.81710	0.04125	0.10076	0.00416	0.818	no	560	62	606	23	619	24	-11.0
ML124A-092	4469	144	0.05495	0.00307	0.79216	0.05701	0.10455	0.00475	0.632	no	410	120	592	32	641	28	-59.1
ML124A-094	5219	200	0.05812	0.00305	0.83148	0.05495	0.10375	0.00417	0.608	no	534	111	614	30	636	24	-20.0
ML124A-097	8534	197	0.05824	0.00142	0.77730	0.03827	0.09680	0.00414	0.869	no	539	52	584	22	596	24	-11.1
ML124A-100	10861	240	0.05922	0.00216	0.96543	0.05073	0.11824	0.00447	0.720	no	575	77	686	26	720	26	-26.7

ML124A s

Results from repeat analyses of standards

*Values marked as outliers were excluded in the calculation of calibration values

Analysis	Outlier	207Pb/206Pb	1 se	206Pb/238U	1 se
LH9415-01	*	0.118309	0.000297	0.306599	0.005321
LH9415-02	*	0.116631	0.000143	0.315840	0.003051
LH9415-03		0.116007	0.000130	0.310108	0.004946
LH9415-04		0.115785	0.000166	0.309197	0.003296
LH9415-05		0.115502	0.000177	0.300557	0.003307
LH94315-06		0.116404	0.000158	0.302393	0.002644
LH94315-07		0.115937	0.000159	0.307330	0.004322
LH9415-08		0.116450	0.000138	0.302330	0.003052
LH9415-09		0.115925	0.000160	0.301459	0.003347
LH9415-10		0.117216	0.000195	0.312453	0.003793
LH9415-11		0.116171	0.000157	0.306599	0.003768
LH9415-012		0.115564	0.000155	0.294710	0.003354
LH9415-013		0.115319	0.000146	0.305580	0.002150
LH9415-14		0.116809	0.000201	0.303139	0.003430
LH9415-15		0.115593	0.000117	0.302169	0.002117
LH9415-16		0.116188	0.000148	0.292688	0.002827
LH9415-17		0.115971	0.000221	0.298291	0.003461
LH9415-18		0.117644	0.000161	0.287992	0.002424
LH9415-19		0.116389	0.000205	0.308348	0.003020
LH9415-20		0.117147	0.000213	0.301242	0.002408

LH9415-21		0.116281	0.000238	0.292639	0.003411
LH9415-22		0.116706	0.000211	0.298589	0.003121
LH9415-23		0.116112	0.000154	0.299820	0.003296
LH9415-24		0.116575	0.000175	0.295557	0.003162
LH9415-25		0.115859	0.000154	0.299277	0.003273
LH9415-26		0.117498	0.000219	0.305767	0.002500
LH9415-27		0.116422	0.000182	0.303207	0.002077
LH9415-28		0.116644	0.000194	0.295848	0.003720
LH9415-29		0.116093	0.000189	0.299741	0.003399
LH9415-30		0.116411	0.000169	0.294057	0.003357
LH9415-31		0.116321	0.000155	0.297632	0.003191
LH9415-32		0.117006	0.000214	0.297226	0.002696
LH9415-33		0.116379	0.000143	0.297285	0.003177
LH9415-34		0.117957	0.000221	0.295204	0.003502
LH9415-35		0.116532	0.000118	0.301129	0.005494
GJ1-01	*	0.061853	0.000191	0.093579	0.001186
GJ1-02	*	0.061987	0.000136	0.096345	0.000907
GJ132-07		0.061655	0.000204	0.091775	0.001188
GJ132-09		0.061917	0.000172	0.087567	0.000853
GJ132-11		0.062000	0.000191	0.088366	0.001252
GJ132-013		0.061961	0.000222	0.087469	0.000799
GJ132-15		0.062009	0.000146	0.087983	0.001444
GJ1-17		0.063128	0.000240	0.090174	0.002127
GJ132-19		0.062325	0.000193	0.089198	0.000613
GJ132-21		0.062979	0.000240	0.089716	0.000733
GJ132-23	*	0.065355	0.000340	0.089796	0.000966
GJ132-25	*	0.061449	0.000355	0.135890	0.005633
GJ132-27		0.062549	0.000173	0.086980	0.000844
GJ132-29		0.063524	0.000417	0.089430	0.001054
GJ132-31		0.062331	0.000156	0.086195	0.000987
GJ132-33		0.062863	0.000202	0.088667	0.001410
GJ132-35		0.061984	0.000479	0.085191	0.001765