

# **Cambrian successions of the Meguma Terrane, Nova Scotia, Canada, and Harlech Dome, North Wales, UK: dispersed fragments of a peri-Gondwanan basin?**

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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. 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.

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  $3 \text{ Jcm}^{-2}$ , a 4 Hz pulse rate and a spot size of 40  $\mu\text{m}$ . 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. The standard used was LH94-15, with isotopic ratios as quoted by Simonetti et al (2005). Analysis of unknowns was preceded by 4-6 analyses of the standard, and two analyses of the standard were carried out after every twelve unknowns. Analysis was spread over part of two days; corrections were carried out to each day's analyses separately.

Data reduction was carried out using the protocol of Simonetti et al. (2005) using the same decay constants, assumptions of analytical uncertainties, and error propagation as contained therein. However, although data were collected to enable  $^{204}\text{Pb}$ -correction, the excess ion signal at atomic mass 204, described by Simonetti et al (2005), varied significantly during the course of the sampling run. Counts were close to the detection limit for the vast majority of grains, but fluctuations in the ion signal produced spurious negative values for some unknowns and standards. Therefore, the final data reduction for both standards and unknowns was carried out without  $^{204}\text{Pb}$  correction. Trials of corrected and uncorrected results showed that differences in apparent  $^{207}\text{Pb}/^{206}\text{Pb}$  and  $^{206}\text{Pb}/^{238}\text{U}$  ages for individual grains typically fall well within the estimated 2-sigma precision range, but that the data processed without  $^{204}\text{Pb}$  correction show a significantly greater degree of concordance. All errors are quoted at 2-sigma level, equivalent to ~95% confidence that the actual value lies between the stated error limits.

Sample DIS 1024 Rhinog Grit adjacent to the north shore of Llyn Cwm Bychan at SH 64194 31455  
 Isotopic ratios

Grain	absolute		absolute		rho	absolute		206Pb/206Pb
	207Pb/235U	2SE	206Pb/238U	2SE		207Pb/235U	2SE	
Better than ±10% discordant								
1	0.722323623	0.03102258	0.090068517	0.00373503	0.96555001	0.058164437	0.00065004	
2	0.656689195	0.02929095	0.083660594	0.00318842	0.85443923	0.056929537	0.00131929	
4	0.663831467	0.0304035	0.083633354	0.00341786	0.8922951	0.057567457	0.0011903	
5	0.667056344	0.02626733	0.083058565	0.00312296	0.95483452	0.058247437	0.00068154	
6	0.664141053	0.03084254	0.084626107	0.00332472	0.84598243	0.056918662	0.00140943	
8	0.627423036	0.0383962	0.079817682	0.00320462	0.65606997	0.057011186	0.00263307	
12	0.580109387	0.02812331	0.07548842	0.00292599	0.79953352	0.055735036	0.00162288	
14	0.657814962	0.03007383	0.082872983	0.00336067	0.88700766	0.057569108	0.00121531	
15	0.963155639	0.03951577	0.111513718	0.00414533	0.9060589	0.062642186	0.00108752	
16	0.657823964	0.0322601	0.083798755	0.00309446	0.75299325	0.056933889	0.00183726	
17	0.631722504	0.03305678	0.080965256	0.00325894	0.76920654	0.056588265	0.00189218	
18	0.667335701	0.02885663	0.083951712	0.00308186	0.8489495	0.057651887	0.00131746	
19	0.934899442	0.0381984	0.106943403	0.00390607	0.89393442	0.063402974	0.00116107	
20	0.748125641	0.03133933	0.091551195	0.00368768	0.96155434	0.059266496	0.00068179	
22	16.56981417	0.63505459	0.569093678	0.02100047	0.9628349	0.211170186	0.00218593	
23	6.574032271	0.23748681	0.375304638	0.01284569	0.94747087	0.127041796	0.00146788	
24	13.66023222	0.59435208	0.525862684	0.02224146	0.97208737	0.188401542	0.00192324	
25	12.19279386	0.42670336	0.499487712	0.01666824	0.95354644	0.177024343	0.00186647	
26	0.675956559	0.03340916	0.08523317	0.00314965	0.74766434	0.057518674	0.00188788	
27	0.646636705	0.03777996	0.081963734	0.00311423	0.65032158	0.057218615	0.00253955	
28	0.663010214	0.03691435	0.082507272	0.00335878	0.73116226	0.058280963	0.00221368	
29	0.684767411	0.03496325	0.084234756	0.00335941	0.78109442	0.058959051	0.00187971	
30	0.648780795	0.0301045	0.080689941	0.00301782	0.80601127	0.058314601	0.00160162	
31	0.646324798	0.03052696	0.080886692	0.00333141	0.87200235	0.057952539	0.001133986	
32	0.614325169	0.08500936	0.079435981	0.00310826	0.28276889	0.056089268	0.00744478	
34	0.621265689	0.03383622	0.077583212	0.0031751	0.75142338	0.058077557	0.00208708	
35	0.608579625	0.06014903	0.076733694	0.00304196	0.40110294	0.057521477	0.00520778	
36	0.642070918	0.02561135	0.080046863	0.00295937	0.92684199	0.058175136	0.00087125	
37	0.6167848	0.07146512	0.079715142	0.0032429	0.35110135	0.056116628	0.00608814	
38	0.634046457	0.04745878	0.080192404	0.00316872	0.52790425	0.057343814	0.0036454	
39	0.698624448	0.03936323	0.085648598	0.00436047	0.90357865	0.059159194	0.00142804	
41	0.683973056	0.03115499	0.086396597	0.00330085	0.83876648	0.057417078	0.00142404	
42	0.703624513	0.04122235	0.08862385	0.00352862	0.67961391	0.057582309	0.0024747	
43	0.670780538	0.04282861	0.084525898	0.00342614	0.63483725	0.057555839	0.00283938	
44	0.697820721	0.05913789	0.088120057	0.00318052	0.42589402	0.057433835	0.00440382	
45	0.694569401	0.04111553	0.08694215	0.00332488	0.64603491	0.057940734	0.00261803	
47	0.706166021	0.0279893	0.087290342	0.00319089	0.92227418	0.058673142	0.00089891	
48	0.747625395	0.03132794	0.090819081	0.00360935	0.94842704	0.059704308	0.00079306	
49	17.56823175	0.78096079	0.579443408	0.02489675	0.9665635	0.219895201	0.00250658	
50	5.495191374	0.20531701	0.346348089	0.01232334	0.95229942	0.115071759	0.00131204	
51	14.45979343	0.48698546	0.552505618	0.01770041	0.95124569	0.189812197	0.0019717	
52	6.578179708	0.23325192	0.383585771	0.01303255	0.95818081	0.124377542	0.00126205	
53	6.711893195	0.24604376	0.38647177	0.01358915	0.95919588	0.125958067	0.00130552	
54	7.21381637	0.03220007	0.089747397	0.0032549	0.81250071	0.058296428	0.00151695	
56	0.711666977	0.03780782	0.089524734	0.00317612	0.66780414	0.057654406	0.00227985	
57	0.700866897	0.02970462	0.08733251	0.00316323	0.85460725	0.058204737	0.00128099	
58	0.648968975	0.02487289	0.082100689	0.00299908	0.95310087	0.057329197	0.000665	
59	0.683556728	0.03094675	0.085986348	0.00299454	0.76923732	0.057655904	0.00166786	
60	0.676008594	0.02640566	0.085676323	0.00299145	0.89387487	0.057225569	0.00100212	
61	0.686333063	0.03331698	0.086509855	0.00348684	0.83030142	0.057539762	0.00155668	
62	0.718703966	0.03414449	0.090142635	0.00344428	0.80391647	0.057825383	0.00163387	
63	0.936190209	0.04388236	0.108064527	0.00471522	0.93087937	0.062831824	0.00107594	
64	0.645566718	0.03530156	0.081934726	0.00357908	0.79882331	0.057114416	0.00187978	
65	0.652821502	0.0292774	0.081297005	0.00335084	0.91905311	0.058239633	0.00102944	
67	0.646938455	0.05122738	0.082699733	0.00380255	0.58067267	0.056735853	0.00365758	
68	0.683171557	0.03173975	0.084655924	0.00325343	0.82720054	0.058529006	0.00152795	
69	0.635062895	0.03051326	0.080721606	0.0035932	0.92644376	0.057059199	0.00103201	
71	0.650877159	0.04371629	0.082410346	0.00346012	0.62512309	0.057281716	0.00300295	

Apparent Age Summary

206Pb/238U		207Pb/235U		207Pb/206Pb		% Disc
AGE (Ma)	error (Ma)	AGE (Ma)	error (Ma)	AGE (Ma)	error (Ma)	
555.9423292	22.05033752	552.0376939	18.12636712	535.9614175	24.4598331	-3.89120192
517.9355262	18.93924134	512.5868403	17.7953827	488.8047315	51.1298364	-6.20240189
517.77348	20.30044896	516.9549226	18.38679811	513.3385299	45.4280407	-0.8991069
514.3532169	18.56123644	518.921057	15.87436524	539.0815003	25.594832	4.77242641
523.6765589	19.73008495	517.1438351	18.64645121	488.3832184	63.677149	-7.52434578
495.0344165	19.10298137	494.4893177	23.67795116	491.965948	101.844729	-0.64797233
469.1371616	17.51442695	464.5317328	17.91318102	441.8287605	64.7670383	-6.40856042
513.2485309	19.97528446	513.2765875	18.25462239	513.4015318	46.3807426	0.0310035
681.5329316	23.99680684	684.9298863	20.23535906	696.1058774	36.9933403	2.20606638
518.7573596	18.37955499	513.2821009	19.56886181	488.9733716	71.1967666	-6.3396932
501.8816936	19.40566576	497.1683074	20.36487521	475.5235535	69.743549	-5.76169732
519.6670801	18.30224217	519.0919553	17.422928	516.5575712	50.1801616	-0.62655883
654.9719629	22.70741167	670.2090236	19.85019121	721.7751661	38.8580462	9.73269639
564.7045886	21.74175426	567.1362663	18.04192648	576.8994887	25.0034484	2.92777749
2904.097839	85.70539385	2910.272961	36.05294892	2914.547131	16.76279	0.44529477
2054.312727	59.93167385	2055.872052	31.34879412	2057.435925	20.3897895	0.17726825
2723.99642	93.28674989	2726.444166	40.35287711	2728.258005	16.810357	0.19151689
2611.594034	71.26271021	2619.353974	32.32131001	2625.357422	17.5301113	0.63754561
527.2835939	18.68219187	524.3276459	20.04193302	511.4756219	72.1355813	-3.21883674
507.8334395	18.52816084	506.4069118	23.03342218	499.9690688	97.7371992	-1.63575546
511.0710607	19.97079973	516.4536143	22.2922599	540.3400417	83.0683574	5.63415909
525.061628	19.94281158	529.6517433	20.85613549	565.5843209	69.4273111	8.1411102
500.2396245	17.97650802	507.7281845	18.37229464	541.6018253	60.0532298	7.93683031
501.4131549	19.8379657	506.2145588	18.65530303	527.9680707	50.66975	5.2276474
492.7552933	18.53591741	486.2842232	52.10915506	455.9037889	294.516099	-8.39635039
481.6810103	18.96642767	490.640335	20.97319446	532.6889118	78.6941656	9.93726306
476.5969428	18.18655086	482.6639279	37.27520447	511.5827118	198.975122	7.09441012
496.4024589	17.69227793	503.5875513	15.71467706	536.3639485	32.775431	7.74067476
494.422232	19.3236514	487.803123	43.91831922	456.985786	204.684646	-8.51052188
492.2710835	18.88272729	498.613421	29.07035329	504.7802176	139.875149	1.54570699
529.7508081	25.839935	537.9690059	23.26157618	572.9595029	52.5010895	7.85506405
534.190783	19.56677412	529.1728852	18.61382489	507.588897	54.5442741	-5.46113151
506.3932346	20.86133629	540.9534931	24.27635628	513.9052353	94.4142038	-6.797

73	0.709865016	0.0498042	0.088414472	0.00322107	0.51926247	0.058230583	0.0034915	546.1532619	19.04945345	544.6661208	29.15308373	538.4484181	131.174005	-1.49241867
74	0.707965769	0.02945679	0.088358546	0.00346466	0.94240858	0.058111545	0.00080869	545.8220152	20.48881203	543.5376493	17.36271715	533.9699393	30.4677427	-2.31493884
75	0.734628126	0.03587138	0.092155287	0.00340171	0.75595612	0.057815731	0.00184807	568.2712099	20.04729193	559.2659325	20.78352986	522.7859866	70.115941	-0.90914214
76	0.670621427	0.02609963	0.084010203	0.0031095	0.95104587	0.057895408	0.00069635	520.0149265	18.46516197	521.0901857	15.74039677	525.8060569	26.3698199	1.14639436
77	5.133542081	0.17190083	0.337788263	0.01074889	0.95029447	0.110222764	0.00114917	1876.020629	51.58881073	1841.673768	28.06600497	1803.082858	18.9608678	-4.66356507
78	14.90837789	0.53543	0.570935396	0.01967262	0.9594071	0.189383505	0.00191824	2911.658959	80.22631788	2809.408419	33.61233127	2736.815303	16.666458	-7.94771726
79	6.534619433	0.23753586	0.384864214	0.01332199	0.9522536	0.123143501	0.00136665	2098.965958	61.71624394	2050.574528	31.51666599	2002.263749	17.9059219	-5.66808842
80	12.93301741	0.4478801	0.524663958	0.01737564	0.95630782	0.178779351	0.00181009	2718.930091	73.05028145	2674.78436	32.1260978	2641.579488	16.8092902	-3.59050384
81	6.59234982	0.22893221	0.384002064	0.01273305	0.95484386	0.124510338	0.00128466	2094.951482	59.03694274	2058.324758	30.16433509	2021.844877	18.2819292	-4.23643832
82	6.908471362	0.27629682	0.387316644	0.01496017	0.96577611	0.129364325	0.00134196	2110.371695	69.14296277	2099.745656	34.86863821	2089.348101	18.2399077	-1.18000789
83	1.088749883	0.04590274	0.125378817	0.00503395	0.95230168	0.062980003	0.00081029	761.4485409	28.77128055	747.8963752	22.07258406	707.555615	27.3636984	-8.07614854
84	0.754720966	0.02821953	0.093256414	0.00316642	0.90808617	0.058695719	0.00091909	574.767303	18.64391469	570.9598929	16.19953676	555.8282954	34.1554028	-3.56158423
85	0.686901334	0.06284125	0.085879147	0.00358907	0.45681828	0.058010334	0.00472097	531.11963	21.27167075	530.9370116	37.13800462	530.1522045	178.289552	-0.19010141
86	0.697647634	0.03686114	0.086897783	0.00290038	0.63170474	0.058227234	0.00238494	537.1640128	17.17932607	537.38493	21.81113489	538.3225712	89.608239	0.22430734
87	0.0864108736	0.0286649	0.086482225	0.00301466	0.84895345	0.058545692	0.0012704	534.6988628	17.8620179	537.6606832	16.9970973	556.2431722	47.376538	2.94371904
88	0.729480883	0.03055655	0.089170634	0.00321646	0.86112351	0.059332245	0.00126352	550.6302699	19.00900993	556.2484602	17.78319652	579.3089401	46.2675909	5.16476985
90	0.699338556	0.02816207	0.087065141	0.00314459	0.89689856	0.058256165	0.00103746	538.1565399	18.6208867	538.3957868	16.68939074	539.4092326	38.9536131	0.24206236
91	0.700210033	0.02994257	0.087311331	0.00328022	0.87560005	0.058164292	0.00118798	539.6163104	19.41837191	538.9163752	17.72637633	535.9559433	70.1018302	-0.71194664
92	0.673311745	0.03547185	0.083871963	0.0031585	0.71481857	0.058223473	0.00214504	519.1927843	18.7580836	522.7240123	21.29971563	538.1812763	80.6017105	3.67218814
97	0.626786872	0.0472807	0.080375798	0.00337359	0.56641954	0.056557906	0.00354492	498.3654659	20.09823203	494.0923238	29.09022878	474.3367199	138.633255	-5.26421846
100	0.681013313	0.03821692	0.085173158	0.00410648	0.85914656	0.057989795	0.00166553	526.9271049	24.34831185	527.386682	22.82568854	529.3763748	62.9213814	0.4818364
102	0.673096087	0.03585125	0.083915996	0.00326035	0.72944438	0.058174283	0.00211953	519.4546708	19.36129489	522.5931405	21.52788138	536.3318286	79.7356054	3.27520452
103	0.658837608	0.02547047	0.08277257	0.00299847	0.93703129	0.057728552	0.00077944	512.6507397	17.82704616	513.9027474	15.47212368	519.4749645	29.6333051	1.36659504
104	0.728472804	0.02767035	0.091597564	0.00304902	0.87634493	0.057680384	0.00105534	564.9784236	17.9804825	565.6564416	16.12607989	517.6426186	40.1689368	-9.5515823
106	6.992980591	0.26579745	0.390527811	0.01409335	0.94945341	0.129870072	0.00154953	2125.275716	65.0071372	2110.538387	33.21613403	2096.20614	20.9629247	-1.62810797
107	3.468512509	0.12726343	0.275487971	0.00961934	0.95166058	0.091314417	0.00102909	1568.598406	48.43445114	1520.084867	28.51401345	1453.168017	21.4423159	-8.95218749
108	10.825201	0.36904249	0.486426799	0.01583141	0.95468838	0.16140508	0.00163757	2555.198186	68.29543048	2508.232657	31.20380041	2470.432788	17.1288701	-4.15782439
109	6.21826046	0.21522272	0.371228573	0.01222216	0.95123398	0.121486001	0.00129706	2035.178772	57.20420736	2007.020349	29.83252131	1978.164009	19.0139862	-3.36185315
110	5.995957731	0.21945266	0.360815257	0.01267496	0.95979723	0.120523683	0.00123819	1986.036899	59.76555359	1975.257669	31.36168479	1963.989153	18.3263677	-1.30450747
111	0.692707033	0.03026249	0.086380923	0.00340432	0.90210483	0.058160814	0.00109644	534.097781	20.16909809	534.42559	17.99282083	535.8250861	41.2604448	0.33590159
112	0.722330314	0.04351661	0.089773452	0.00348211	0.64383608	0.058356151	0.00269005	554.1971476	20.56513158	552.0416385	25.3360512	543.158992	100.765773	-2.12084657
113	0.671804278	0.03026729	0.083437481	0.00352624	0.93803653	0.058395624	0.00091172	516.6081517	20.94692475	521.8088532	18.21864197	544.6369146	34.1201003	5.35519237
114	0.684337042	0.02861899	0.085124376	0.00327384	0.91964239	0.058306213	0.00095769	526.6373093	19.41965684	529.3923334	17.10769398	541.2872605	35.915807	2.81851693
115	0.665611196	0.03945083	0.082592524	0.00320554	0.65482544	0.058449204	0.00261824	511.57187259	19.05955815	518.0404534	23.76945626	546.6408436	97.8619784	6.71773826
116	0.67599623	0.03338361	0.083397745	0.00362108	0.87921419	0.058788001	0.00138316	516.3717202	21.51015543	524.3516806	20.02628455	559.2539698	52.91806827	7.97860682
117	6.249391852	0.25334826	0.35477851	0.01388403	0.96533531	0.127755374	0.00135183	1957.376178	65.72788321	2011.390143	34.87913777	2067.314697	18.6519078	1.6344155
118	0.715996026	0.04289249	0.089504474	0.00525908	0.98083069	0.058018246	0.00067727	552.6508435	31.04220127	548.3004368	25.06818005	530.4509879	25.5726417	-4.35828741
119	0.665764325	0.03469744	0.082423373	0.00346354	0.80629215	0.05858263	0.00180598	510.5714183	20.59429171	518.1337991	20.9329014	515.6200873	67.2915869	7.73973033
120	0.659017936	0.03288313	0.081851746	0.00379237	0.92855245	0.058393971	0.00108157	507.1661716	22.55800303	514.0131215	19.92888708	544.5750609	40.4781361	7.14286463
121	0.633353732	0.02883678	0.079413098	0.00345835	0.95647904	0.057843249	0.00076849	492.6186317	20.62073041	498.1826522	17.7013589	523.829653	29.1377294	6.18860391
122	0.662262892	0.03015553	0.082431097	0.00346028	0.92189952	0.058269067	0.00102794	510.6174196	20.57481367	515.9972198	18.25522968	539.8935974	38.5841801	5.64000883
123	0.611038749	0.04345426	0.077272814	0.0034082	0.62020461	0.057350968	0.00319937	479.8238513	20.3625289	484.215014	27.02489217	505.054691	122.739666	5.18376559
124	0.617644028	0.03981995	0.077255172	0.00309036	0.62046731	0.057984165	0.00293168	479.7182832	18.46657306	488.3695859	24.69200427	529.1636269	110.784876	9.69558123
127	0.635743768	0.03652271	0.079101866	0.00326419	0.7183028	0.058290007	0.00232979	490.7596407	19.47040332	499.6675683	22.42196892	540.6793995	87.4066723	9.588213
129	0.622168913	0.03887786	0.078937045	0.00345313	0.70006444	0.057164468	0.00255074	489.7749506	20.59875518	491.2058577	24.04823132	497.8838011	98.296038	1.69130308
132	0.614916552	0.02593761	0.077845234	0.00295868	0.90105647	0.057290535	0.00104806	483.2483137	17.67112935	486.6561249	16.17876317	502.734584	40.2660677	4.02307639
133	0.663727288	0.03069152	0.082879868	0.00356144	0.92928172	0.058081703	0.00099205	513.2895221	21.16653847	516.8913433	18.56054581	532.8452452	37.401879	3.81803113
134	0.655470873	0.03150259	0.081991973	0.00341732	0.86720423	0.059780034	0.00138759	508.0016844	20.32800955	511.8398574	19.14057033	529.0192327	52.4402717	4.13143521
135	0.673296481	0.03025638	0.083802446	0.00361929	0.96107241	0.05827045	0.00072349	518.7993136	21.49153121	522.7147499	18.19603672	539.9455123	27.1558166	4.07982232
137	0.636788469	0.05351538	0.079428413	0.00327791	0.49106358	0.058145758	0.00425678	492.7100942	19.5462195	500.3158563	32.66713802	535.2583707	160.245561	8.25641408
138	0.632205088	0.04795568	0.078799483	0.00342021	0.5721998	0.058187899	0.00361984	488.9529908	20.40530226	497.4685642	29.4030218	536.8473638	136.132493	9.26359458
139	5.142997082	0.21067209	0.32109464	0.01241387	0.94380764	0.116166779	0.00157267	1795.072785	60.29190828	1843.2378	34.23843317	1898.052863	24.3391236	6.2136799
140	0.895586062	0.04793683	0.10474898	0.00406751	0.72546589	0.062009217	0.00228439	642.1798026	23.69109506	649.3659523	25.35837291	674.4265711	78.7797982	5.02326094
141	0.648364438	0.03306642	0.080550278	0.00344933	0.83965375	0.058378223	0.00161702	499.4064637	20.5454781	507.4717435	20.16711812	543.9855527		

165	6.50280765	0.25180735	0.368303028	0.0136931	0.96012766	0.128054352	0.00138624	2021.410519	64.19092331	2046.278422	33.5186541	2071.434083	19.0731949	2.81273562
166	0.699516133	0.02848059	0.087389266	0.00338419	0.95114155	0.058054832	0.0007298	540.0783511	20.03146389	538.5018867	16.8748437	531.8318088	27.5322339	-1.61646749
167	0.65611011	0.03454987	0.081213879	0.0035362	0.82686997	0.058592928	0.00173522	503.3642016	21.04914878	512.2318579	20.9650493	552.0037686	64.6394636	9.15950104
168	0.655026432	0.0283804	0.081403538	0.00335537	0.95134402	0.058359864	0.00077913	504.4948869	19.97091765	511.5672232	17.26418645	543.2980645	29.1826027	7.42997777
169	0.643161902	0.0268942	0.080537064	0.00320859	0.95275739	0.057919292	0.00073565	499.3276313	19.11390302	504.261943	16.48458684	526.7102631	27.8419676	5.40259945
170	0.680949593	0.03706298	0.084685161	0.00344105	0.74654825	0.058318504	0.00211188	524.0275306	20.41818533	527.348193	22.144769	541.7481395	79.1784566	3.40669228
171	0.664955931	0.0366633	0.082548537	0.0037333	0.82024807	0.058422778	0.00184257	511.3167964	22.1930132	517.6409153	22.11669643	545.6528121	68.9122586	6.54527517
179	0.623899933	0.09902502	0.078299008	0.00299416	0.24092909	0.057790627	0.0089023	485.9616874	17.87525455	492.2887977	60.10334346	521.8332323	337.956411	7.1362481
180	0.634369165	0.02990248	0.080338763	0.00331365	0.87501796	0.057268479	0.00130679	498.1444723	19.74241561	498.8139289	18.40958372	501.8869823	50.2329734	0.77486731
181	0.666010904	0.03046697	0.082940126	0.00346176	0.91239896	0.058239196	0.00109045	513.6482258	20.57395967	518.2840925	18.40094623	538.7719871	40.9595379	4.85127345
182	0.687216623	0.03428648	0.086332152	0.00362431	0.84144019	0.057732427	0.00155641	533.8083708	21.47123999	531.1267732	20.42707156	519.6222722	59.1676687	-2.84471689
183	0.676187923	0.03306393	0.083927684	0.00374283	0.91202778	0.058433365	0.00117184	519.5241805	22.22130336	524.4678089	19.83412682	546.0487015	43.8160751	5.05576411
184	0.675445018	0.03154118	0.085384864	0.00353502	0.88659056	0.057373037	0.00123925	528.1846082	20.96138912	524.0176803	18.9374466	505.9011133	47.5171027	-4.58773503
186	0.687079436	0.13417528	0.276413559	0.00962513	0.95687907	0.096743518	0.00102268	1573.274702	48.42848491	1568.573556	28.6587218	1562.253099	52.2227294	-0.79510938
188	0.665721264	0.03031929	0.083435842	0.00366981	0.88677875	0.057868004	0.00132659	516.5984	21.79835443	518.1075506	19.93085504	524.7679726	50.2687829	1.61995523
189	0.674976736	0.03846264	0.084472727	0.00357703	0.74311561	0.057952345	0.0022098	522.7648889	21.2279203	523.7338439	23.05265028	527.9607267	83.5688669	1.02457068
190	0.669343136	0.07396094	0.082988843	0.00342256	0.37323102	0.058496223	0.00599663	513.9382203	20.34041999	520.3129585	44.01887402	548.3972948	223.889974	6.53717129
191	0.683065147	0.04397597	0.083065147	0.00340769	0.62452039	0.058452119	0.00299882	514.3923945	20.2507833	520.3800458	26.40054285	546.749789	112.073993	6.15718926
192	0.634190397	0.05121022	0.079003206	0.00326513	0.51182134	0.058220197	0.00403878	490.1702333	19.47777145	498.7028602	31.33043369	538.0581766	151.177233	9.24236803
Discordance > 10% or < -10%														
3	0.650585761	0.03697276	0.085332799	0.00303913	0.62669437	0.055295181	0.00244878	527.8753749	18.02590542	508.8391444	22.49336781	424.1780115	98.8081644	-25.4640432
7	0.620826103	0.04153751	0.080476886	0.00305039	0.56651778	0.05594967	0.00308476	498.9686025	18.17379273	490.364989	25.69375249	450.3717731	122.455069	-11.213914
9	0.595826775	0.06468025	0.078485063	0.00293749	0.34477692	0.055059432	0.00561052	487.0738878	17.5343709	474.5818718	40.34222323	414.6372932	272.732278	-18.1394517
10	0.670577493	0.08964527	0.077238664	0.00297285	0.28791215	0.062966992	0.00806123	479.6194961	17.76536929	521.0634829	53.07508684	707.1160896	52.037002	33.3768213
11	0.573210253	0.046392	0.075758369	0.00273029	0.44529577	0.054875951	0.00397668	470.7550183	16.34034625	460.0886215	29.50938427	407.1724393	162.165372	-16.1937229
13	0.61545019	0.03009196	0.079898208	0.00310506	0.79483315	0.055866903	0.00165759	495.51513	18.50897285	486.9915961	18.74014355	447.0828101	65.9361863	-11.2551865
21	0.665375068	0.03371264	0.08601316	0.00314457	0.72155602	0.056104842	0.00196814	531.9151583	18.63872893	517.8964959	20.34939283	456.519805	77.2293968	-1.2073594
33	0.73259429	0.06929656	0.081337558	0.00355375	0.46189925	0.065323752	0.00548037	504.1015606	21.15099462	558.0747065	39.81998405	784.7809836	176.21465	37.1713985
40	0.991713998	0.09056452	0.085309877	0.00416097	0.53410138	0.084311313	0.00650924	527.7392251	24.66765776	629.5944292	45.15120183	1299.74596	160.24898	61.1029618
46	0.695073452	0.04759138	0.088256003	0.00306264	0.5068202	0.057119602	0.00337145	545.2146197	18.11642683	535.844113	28.11532914	496.1538876	130.063421	-10.3128101
55	0.714721662	0.03846141	0.091413534	0.0034066	0.69250333	0.056705498	0.00220114	563.8915473	20.08966053	547.5460945	22.5234938	480.0983218	85.7819607	-18.295556
66	0.634480285	0.04913081	0.081874561	0.00355391	0.56055996	0.056204087	0.00360407	507.3021196	21.14149946	498.8829624	30.07164704	460.4394926	142.174546	-10.5840324
70	0.652933982	0.0308831	0.085401323	0.00360016	0.8912635	0.055450236	0.00118937	528.2823605	21.34670634	510.2826621	18.79616865	430.42232	47.8049752	-23.6825946
72	0.664769771	0.05052045	0.085122753	0.00334783	0.51751414	0.056640141	0.00368323	526.6276689	19.85793364	517.527378	30.35533497	477.5495217	143.753534	-10.7031327
89	0.770392693	0.0365412	0.091645718	0.00417484	0.96041161	0.060967544	0.00808561	565.2662924	24.60636913	579.9882036	20.74431847	638.0891893	28.4276861	11.9199195
93	0.65011144	0.04155322	0.083521992	0.00371784	0.69642329	0.056452823	0.00258943	517.110971	22.08144713	508.5472921	25.25280856	470.2218891	101.526732	-10.3774926
94	0.667993499	0.04199281	0.087241302	0.00322531	0.58809455	0.055532704	0.0028223	539.2011129	19.09505151	519.4917056	25.24643847	433.7335647	113.252348	-25.3502191
95	0.628654737	0.03789483	0.083181905	0.0035593	0.70985171	0.054812809	0.00232735	504.59873027	21.14795972	495.2575106	23.35482581	404.595481	95.0545004	-28.4180217
96	0.790007531	0.04276047	0.080056438	0.00314348	0.72544206	0.057150441	0.00266632	496.45961	18.73487366	591.1761459	23.97072334	973.7506065	75.9619858	50.9032029
98	0.771760465	0.04331346	0.097346966	0.00384399	0.70358925	0.074498807	0.00229313	598.8423375	22.54221858	580.7723668	24.52407165	510.7163004	87.6618329	-18.0711718
99	0.666262749	0.04682179	0.085413847	0.00354508	0.59060306	0.056573881	0.00320828	528.3567479	21.02040446	518.437573	28.13862753	474.9613476	125.418849	-11.7097136
101	0.640486351	0.035771	0.083254931	0.00311191	0.66926078	0.055795431	0.00231539	515.51218936	18.49230368	502.6072535	21.90261246	444.2372576	92.2658942	-16.6979277
105	0.6922614	0.03390924	0.088504338	0.00350886	0.80938166	0.056728889	0.00163192	546.6854939	20.74697661	534.1582381	20.1449049	481.0095468	63.5550307	-14.219305
125	0.620705885	0.06880578	0.07744972	0.00311737	0.36310215	0.058125237	0.00600348	480.8823766	18.62436339	490.2896747	42.21734036	534.4858824	226.109097	10.4071273
126	0.608955306	0.04137673	0.07457185	0.00299911	0.59189701	0.059225567	0.00324356	463.6409578	17.9667359	482.9010409	25.78200732	575.397777	119.064928	20.1272695
128	0.626811447	0.02790143	0.077806276	0.00318098	0.91845274	0.058427999	0.00102871	483.0153071	18.99758755	494.1076624	17.26717407	545.848055	38.4690301	11.9469384
130	0.873900271	0.08221438	0.1014016	0.00460775	0.48301251	0.062505148	0.0051489	622.6175715	26.91254266	637.6828604	43.59873951	691.4374874	175.664748	10.4406604
131	0.632783618	0.03137497	0.078062758	0.00358104	0.92520287	0.058790894	0.00110616	484.5491355	21.37778671	497.8283997	19.32613176	559.3612593	41.0162265	13.8825011
136	0.710039808	0.04296435	0.081484641	0.00353828	0.71761314	0.063198339	0.00266328	504.9783387	21.0562034	544.7699142	25.19604832	714.9116831	89.5215715	30.5236078
142	0.663025099	0.0311664	0.081301667	0.00338661	0.88615264	0.059146527	0.00128836	503.8875891	20.15843288	516.4627027	18.85296476	572.4937244	47.3794508	12.457331
145	0.627714135	0.03489086	0.077805578	0.00352729	0.81560543	0.058512668	0.00188185	483.0111347	21.06244337	494.6709237	21.53524823	549.0111375	70.233283	12.4768131
147	0.824569621	0.07774332	0.080111123	0.00326104	0.43174561	0.074650588	0.00634853	496.7859956	19.43352036	610.594644	42.36822571	1059.109182	171.171272	55.1351833
148	0.623584342	0.0271824	0.077039522	0.00310718	0.92525231	0.058705711	0.00097077	478.4276781	17.8065701	492.0914471	16.8590284	556.199543	36.0673912	14.5069341
149	0.630397051	0.03147942	0.078345512	0.00357564	0.91396046	0.058357781	0.00118257	486.2397009	21.34004664	496.3431737	19.41797804	543.2200535	44.2958729	10.8893318
150	0.578067278	0.02421431	0.072398175	0.0029239	0.96414179	0.057909457	0.00064376	450.5877557	17.55225585	463.2186187	15.46199676			

176	0.649006756	0.04662664	0.075432003	0.00306273	0.56515555	0.062401108	0.00369848	468.798997	18.3326852	507.8673307	28.3121424	687.8839519	126.464997	33.0144242
177	0.589406034	0.03178356	0.073203212	0.00296889	0.75209991	0.058396009	0.00207534	455.4251879	17.80860252	470.4882806	20.10439496	544.651316	77.6667839	16.9663637
178	0.650560592	0.03728251	0.079315915	0.00314975	0.69294337	0.059487558	0.00245796	492.0382168	18.78504431	508.8236615	22.68006543	584.986007	89.6845081	16.5014702
185	0.77853479	0.04022828	0.090914512	0.00401274	0.8541904	0.062107427	0.00166866	560.9434114	23.66852993	584.64728	22.71083243	677.8098272	57.4226288	18.0004405
187	1.92326215	0.07545465	0.144933356	0.00545004	0.95848239	0.096242936	0.00107669	872.4991528	30.61303565	1089.201571	25.8763224	1552.519007	21.0047433	46.776428
193	0.620691205	0.06211989	0.077447089	0.00326735	0.42153632	0.058125837	0.00527523	480.8666354	19.51910019	490.2804772	38.1915418	534.5082723	198.678254	10.4141162
194	0.630645579	0.03177185	0.078210217	0.00329586	0.83646508	0.058481781	0.00161464	485.4308454	19.67525375	496.4979408	19.59367487	547.8579908	60.3041325	11.8284599

Results from repeat analyses of standards

Day 1 #	absolute		absolute		outlier	absolute		outlier
	207Pb/235U	2SE	206Pb/238U	2SE		207Pb/206Pb	2SE	
1	5.469544479	0.17919512	0.354405559	0.01103644	*	0.111930736	0.00113943	*
2	5.368546617	0.17896984	0.347790015	0.01103292		0.111953673	0.00114715	*
3	5.288198324	0.17903896	0.341019054	0.01099907		0.1124677	0.00115771	
4	5.251461018	0.17147845	0.340314991	0.0105537	*	0.111917446	0.00114426	
5	5.282239111	0.17560385	0.341538259	0.01079228		0.112170181	0.00115856	
6	5.228297444	0.18020921	0.33732848	0.01107005		0.112410273	0.00118486	
7	5.204606796	0.17650417	0.336525376	0.01086386		0.112167963	0.00116537	
8	5.238682185	0.1706299	0.340362922	0.01052025	*	0.111629386	0.00114668	
9	5.203448972	0.16960965	0.3371826	0.01043451	*	0.111924424	0.00114584	
10	5.196629773	0.16843906	0.335021139	0.01029115		0.112498904	0.00116382	
11	5.188271127	0.17331018	0.33441019	0.01060543		0.112523151	0.00118055	
12	5.259414308	0.16933199	0.339905942	0.0103913		0.112221832	0.00113332	
13	5.265965763	0.19330786	0.338134464	0.01184894	*	0.112950282	0.00123522	
14	5.212135254	0.17059881	0.336641021	0.01046952		0.112291625	0.00114579	
15	5.211950764	0.17486562	0.335762975	0.01072608		0.112581291	0.00115447	
16	5.209248225	0.16967835	0.334864313	0.01034049	*	0.112824888	0.00116934	
17	5.202217196	0.17118979	0.336785503	0.01050724		0.112029866	0.00117243	
18	5.237015507	0.16959951	0.338608561	0.01032762		0.112172049	0.00122115	
19	5.209099722	0.1699125	0.335098146	0.01036046	*	0.112742944	0.00117196	
20	5.234978794	0.17110769	0.33814517	0.01047843		0.112282084	0.00116733	
Day 2								
21	5.211359712	0.1696043	0.330613655	0.01013367	*	0.114321783	0.00125074	
22	5.167781378	0.16748909	0.331785222	0.01019609		0.112965498	0.00116322	
23	5.224242549	0.17686903	0.335256485	0.01076324		0.113017285	0.00121456	
24	5.264641261	0.17200001	0.339254052	0.01053239	*	0.112549213	0.00114526	
25	5.237351353	0.17553199	0.338420701	0.01080279	*	0.112241514	0.00114641	
26	5.229973395	0.17254435	0.337207638	0.01057741	*	0.112486603	0.00114993	
27	5.335018026	0.17682532	0.342010435	0.01078651		0.113134552	0.00115299	
28	5.217863492	0.17096796	0.334199438	0.01036295		0.113236314	0.00119886	
29	5.239647088	0.17195367	0.334867273	0.01034639		0.113482281	0.00125542	
30	5.390768869	0.17644253	0.344523454	0.01072384		0.113482957	0.00114848	*
31	5.546884445	0.18012361	0.355890946	0.01097494		0.113039676	0.00115009	*
32	5.164750873	0.1712743	0.330696621	0.01032508		0.113270899	0.00126591	
33	5.166507466	0.16856502	0.332000727	0.0102793		0.112864342	0.00116125	
34	5.168714452	0.18253235	0.332961285	0.01126836	*	0.112586813	0.00113595	
35	5.153573689	0.17114642	0.328682931	0.01037605	*	0.113718223	0.00117235	*
36	5.233016134	0.17379829	0.335836295	0.01059814		0.113011638	0.00116985	
37	5.237602164	0.1695794	0.33532977	0.01030362		0.113281534	0.00115609	
38	5.263324976	0.17352918	0.336041371	0.01050618		0.113596817	0.00118879	

Values marked as outliers were excluded in calculation of calibration values