

Application of U–Pb detrital zircon geochronology to drill cuttings for age control in hydrocarbon exploration wells: A case study from the Rukwa Rift Basin, Tanzania

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Table S1. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_90-240

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_90-240	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
											Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁶ Pb/ ²³⁸ U ages for common Pb		Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.			
Grain ID:																
Galula-1-90°-240°-1	0.12618	0.00134	0.34452	0.00319	6.00568	0.07932	2045.5	18.63	1908.4	15.29	1888.54	15.29	1.00	8.3	2045.50	18.63
Galula-1-90°-240°-2	0.12245	0.00127	0.34984	0.00322	5.93605	0.07112	1992.2	18.37	1933.8	15.38	1925.34	15.38	1.00	3.5	1992.20	18.37
Galula-1-90°-240°-4	0.07587	0.00098	0.17101	0.00165	1.76753	0.02891	1091.7	25.54	1017.7	9.09	1014.51	9.09	0.92	7.6	1091.70	25.54
Galula-1-90°-240°-5	0.11458	0.00127	0.32185	0.003	5.13327	0.07643	1873.3	19.81	1798.8	14.62	1789.55	14.62	0.99	4.7	1873.30	19.81
Galula-1-90°-240°-7	0.06439	0.00076	0.10011	0.00095	0.89071	0.01137	754.5	24.72	615.1	5.54	612.10	5.54	0.89	23.3	612.10	5.54
Galula-1-90°-240°-8	0.07748	0.001	0.18747	0.00187	2.01493	0.03387	1133.7	25.14	1107.7	10.15	1106.40	10.15	0.93	2.5	1133.70	25.14
Galula-1-90°-240°-9	0.12493	0.00137	0.36653	0.00349	6.2973	0.09353	2027.8	19.24	2013.1	16.46	2010.72	16.46	1.01	0.8	2027.80	19.24
Galula-1-90°-240°-10	0.07614	0.00115	0.15634	0.0015	1.65117	0.03355	1098.8	29.85	936.4	8.34	930.13	8.34	0.91	18.1	930.13	8.34
Galula-1-90°-240°-11	0.11598	0.00141	0.31735	0.00305	5.15902	0.10019	1895.1	21.7	1776.8	14.9	1762.33	14.90	0.99	7.5	1895.10	21.70
Galula-1-90°-240°-12	0.12093	0.00129	0.34662	0.00322	5.84162	0.07898	1969.9	18.91	1918.4	15.42	1911.10	15.42	1.00	3.1	1969.90	18.91
Galula-1-90°-240°-15	0.11761	0.00127	0.3268	0.00298	5.29402	0.07153	1920.2	19.23	1822.8	14.5	1810.36	14.50	0.99	6.1	1920.20	19.23
Galula-1-90°-240°-16	0.07426	0.0009	0.1744	0.00163	1.82485	0.02696	1048.5	24.23	1036.3	8.96	1035.78	8.96	0.92	1.2	1048.50	24.23
Galula-1-90°-240°-18	0.07677	0.00103	0.19203	0.00187	2.03699	0.03667	1115.2	26.55	1132.4	10.12	1133.21	10.12	0.93	1.6	1115.20	26.55

Table S2. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_270-510

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_270-510	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
											Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁶ Pb/ ²³⁸ U ages for common Pb.		Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.			
Grain ID:																
Galula-1-270°-510°-1	0.07514	0.00081	0.16698	0.00153	1.74397	0.0199	1072.3	21.48	995.4	8.47	992.28	8.47	0.92	8.1	992.28	8.47
Galula-1-270°-510°-2	0.10241	0.00115	0.24354	0.00228	3.45041	0.04836	1668.2	20.54	1405.1	11.82	1384.21	11.82	0.96	20.5	1668.20	20.54
Galula-1-270°-510°-3	0.18665	0.00197	0.48471	0.00454	12.44997	0.1888	2712.9	17.31	2547.8	19.72	2493.40	19.72	1.06	8.8	2712.90	17.31
Galula-1-270°-510°-4	0.11447	0.00123	0.32743	0.00306	5.17429	0.06971	1871.5	19.25	1825.9	14.86	1820.13	14.86	0.99	2.8	1871.50	19.25
Galula-1-270°-510°-6	0.11961	0.00124	0.35454	0.00332	5.88789	0.06989	1950.5	18.46	1956.2	15.81	1957.10	15.81	1.01	0.3	1950.50	18.46
Galula-1-270°-510°-7	0.12378	0.00166	0.37894	0.00382	6.52243	0.16541	2011.3	23.67	2071.3	17.86	2081.29	17.86	1.02	3.4	2011.30	23.67
Galula-1-270°-510°-8	0.12523	0.00134	0.36439	0.00337	6.36449	0.08826	2032	18.81	2002.9	15.93	1998.38	15.93	1.01	1.7	2032.00	18.81
Galula-1-270°-510°-9	0.11339	0.00121	0.30347	0.00262	4.81957	0.06304	1854.5	19.2	1708.5	13.96	1692.01	13.96	0.98	9.6	1854.50	19.20
Galula-1-270°-510°-10	0.11509	0.0012	0.32705	0.00301	5.24444	0.06149	1881.2	18.6	1824	14.61	1816.81	14.61	0.99	3.5	1881.20	18.60
Galula-1-270°-510°-13	0.07559	0.00112	0.17727	0.00172	1.89864	0.03892	1084.3	29.39	1052	9.42	1050.61	9.42	0.92	3.2	1084.30	29.39
Galula-1-270°-510°-14	0.11727	0.00127	0.33073	0.00313	5.33548	0.07263	1915	19.32	1841.9	15.15	1832.39	15.15	1.00	4.5	1915.00	19.32
Galula-1-270°-510°-16	0.17649	0.00184	0.51545	0.00477	12.56035	0.17623	2620.1	17.22	2679.8	20.3	2701.91	20.30	1.07	3.0	2620.10	17.22
Galula-1-270°-510°-17	0.11569	0.00122	0.34591	0.00324	5.57326	0.0714	1890.6	18.92	1915	15.52	1918.41	15.52	1.00	1.4	1890.60	18.92
Galula-1-270°-510°-18	0.18984	0.00193	0.53227	0.00494	14.31396	0.17124	2740.8	16.67	2751	20.77	2755.25	20.77	1.08	0.5	2740.80	16.67
Galula-1-270°-510°-20	0.06212	0.0008	0.10886	0.00104	0.94425	0.01389	678.4	27.32	666.10	6.05	665.85	6.05	0.89	1.9	665.85	6.05
Galula-1-270°-510°-21	0.12224	0.00139	0.38172	0.00358	6.52291	0.11441	1989.1	20.14	2084.30	16.69	2100.20	16.69	1.02	5.3	1989.10	20.14
Galula-1-270°-510°-22	0.12457	0.0013	0.3911	0.00361	6.49582	0.08209	2022.7	18.44	2127.90	16.71	2146.43	16.71	1.02	5.8	2022.70	18.44
Galula-1-270°-510°-23	0.07354	0.00079	0.18521	0.00172	1.89835	0.02208	1028.9	21.69	1095.40	9.34	1098.43	9.34	0.93	6.3	1028.90	21.69
Galula-1-270°-510°-24	0.06054	0.00101	0.0973	0.00095	0.82714	0.01665	623	35.5	598.50	5.59	598.09	5.59	0.88	4.2	598.09	5.59
Galula-1-270°-510°-26	0.07038	0.00085	0.13981	0.00131	1.34771	0.01883	939.5	24.61	843.60	7.39	840.48	7.39	0.91	11.8	840.48	7.39
Galula-1-270°-510°-28	0.09102	0.00101	0.23394	0.00221	2.92634	0.03865	1446.9	20.97	1355.10	11.55	1348.69	11.55	0.95	7.3	1446.90	20.97
Galula-1-270°-510°-30	0.11978	0.00128	0.33407	0.00309	5.54213	0.07346	1953	18.94	1858.10	14.93	1845.37	14.93	1.00	5.8	1953.00	18.94
Galula-1-270°-510°-31	0.12028	0.00123	0.37131	0.00345	6.12891	0.06838	1960.3	18.14	2035.50	16.22	2047.45	16.22	1.01	4.3	1960.30	18.14
Galula-1-270°-510°-33	0.0692	0.0009	0.12667	0.00118	1.18233	0.01797	904.8	26.51	768.80	6.73	764.94	6.73	0.90	18.3	764.94	6.73
Galula-1-270°-510°-34	0.07359	0.00101	0.15493	0.00151	1.59223	0.02822	1030.2	27.22	928.50	8.42	924.73	8.42	0.91	11.4	924.73	8.42
Galula-1-270°-510°-35	0.07374	0.00092	0.17952	0.00171	1.82123	0.02856	1034.3	24.75	1058.90	9.34	1059.97	9.34	0.93	2.4	1034.30	24.75
Galula-1-270°-510°-36	0.0743	0.00079	0.15056	0.00141	1.49653	0.01641	1049.6	21.18	994.10	7.92	898.79	7.92	0.91	16.8	898.79	7.92
Galula-1-270°-510°-37	0.07559	0.0008	0.19932	0.00183	2.06278	0.02322	1084.2	21.16	1171.70	9.85	1176.13	9.85	0.94	7.8	1084.20	21.16
Galula-1-270°-510°-38	0.12296	0.00125	0.35536	0.00326	6.03999	0.06329	1999.6	17.89	1960.10	15.50	1954.24	15.50	1.01	2.3	1999.60	17.89
Galula-1-270°-510°-39	0.12588	0.00129	0.36588	0.00338	6.33453	0.07146	2041.2	18.01	2010.10	15.95	2005.03	15.95	1.01	1.8	2041.20	18.01
Galula-1-270°-510°-41	0.11545	0.00119	0.34461	0.00316	5.5722	0.06187	1886.9	18.37	1906.40	15.15	1909.03	15.15	1.00	1.2	1886.90	18.37
Galula-1-270°-510°-45	0.12258	0.00128	0.36063	0.00330	6.16838	0.07451	1994.1	18.37	1985.20	15.65	1983.79	15.65	1.01	0.5	1994.10	18.37
Galula-1-270°-510°-46	0.11543	0.00129	0.30750	0.00279	4.84863	0.0708	1886.6	20.05	1728.40	13.77	1709.99	13.77	0.99	10.3	1886.60	20.05
Galula-1-270°-510°-48	0.11968	0.00164	0.34200	0.00327	5.53845	0.13821	1951.5	24.26	1896.30	15.73	1888.63	15.73	1.00	3.3	1951.50	24.26
Galula-1-270°-510°-50	0.06008	0.00072	0.09119	0.00087	0.75785	0.00978	606.4	25.72	562.60	5.12	561.77	5.12	0.88	7.9	561.77	5.12
Galula-1-270°-510°-51	0.07450	0.00083	0.16880	0.00158	1.73942	0.02131	1054.6	22.44	1005.50	8.72	1003.43	8.72	0.92	5.1	1054.60	22.44
Galula-1-270°-510°-52	0.11380	0.00119	0.30845	0.00284	4.87832	0.05777	1860.9	18.74	1733.10	14.00	1718.26	14.00	0.99	8.3	1860.90	18.74
Galula-1-270°-510°-53	0.07432	0.00082	0.17102	0.00158	1.73538	0.02098	1050.1	22.07	1017.70	8.70	1015.36	8.70	0.92	7.0	1050.10	22.07
Galula-1-270°-510°-54	0.05864	0.00073	0.08448	0.00079	0.68869	0.00927	553.8	27.04	522.80	4.70	522.29	4.70	0.88	6.0	522.29	4.70
Galula-1-270°-510°-55	0.0723	0.00083	0.1653	0.00156	1.636	0.0212	994.3	23.05	986.20	8.63	985.84	8.63	0.92	0.9	985.84	8.63

Table S3. Summary Analytical Data for U-Pb Detrital Zircon Analyses for Sample Galula-1_540-900

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_540-900	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
	Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁷ Pb/ ²³⁵ U ages for common Pb.										Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.					
Grain ID:																
Galula1-540'-900'-1	0.11424	0.00116	0.3136	0.00287	4.88056	0.04987	1867.9	18.19	1758.4	14.07	1745.38	14.07	0.99	7.0	1867.90	18.19
Galula1-540'-900'-2	0.19102	0.00203	0.48558	0.00449	12.82708	0.18209	2751	17.35	2551.5	19.47	2484.86	19.47	1.06	10.7	2751.00	17.35
Galula1-540'-900'-3	0.11618	0.00119	0.33557	0.00308	5.376	0.05773	1898.2	18.25	1865.3	14.84	1860.96	14.84	1.00	2.0	1898.20	18.25
Galula1-540'-900'-4	0.07416	0.0011	0.16023	0.00156	1.63511	0.03263	1045.9	29.59	958	8.66	954.62	8.66	0.92	9.6	954.62	8.66
Galula1-540'-900'-6	0.18885	0.00192	0.52447	0.00482	13.74199	0.16284	2732.2	16.66	2718.1	20.38	2712.51	20.38	1.07	0.7	2732.20	16.66
Galula1-540'-900'-7	0.06868	0.0008	0.12121	0.00112	1.13519	0.01448	889.1	23.91	737.6	6.45	733.40	6.45	0.90	21.2	733.40	6.45
Galula1-540'-900'-9	0.19346	0.00199	0.52371	0.00492	14.01513	0.16899	2771.8	16.81	2714.9	20.8	2692.09	20.80	1.07	3.0	2771.80	16.81

Table S4. Summary Analytical Data for U-Pb Detrital Zircon Analyses for Sample Galula-1_930-1120

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_930-1120	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Age	Err 1σ
	Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁷ Pb/ ²³⁵ U ages for common Pb.										Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.					
Grain ID:																
Galula1-930'-1120'-1	0.10893	0.00129	0.27913	0.00275	4.18814	0.06957	1781.5	21.54	1587	13.87	1567.84	13.87	0.97	13.6	1781.50	21.54
Galula1-930'-1120'-2	0.00215	0.00083	0.52843	0.00523	14.67044	0.22526	2797.8	17.62	2734.8	22.05	2708.85	22.05	1.08	3.3	2797.80	17.62
Galula1-930'-1120'-3	0.05977	0.00083	0.09905	0.001	0.83249	0.01349	594.8	30.35	608.8	5.86	609.11	5.86	0.88	2.3	609.11	5.86
Galula1-930'-1120'-6	0.12402	0.0014	0.31144	0.00316	5.24853	0.0776	2014.8	19.87	1747.8	15.55	1714.74	15.55	0.99	17.5	2014.80	19.87
Galula1-930'-1120'-7	0.11305	0.00129	0.34357	0.00342	5.39186	0.08781	1849.1	20.53	1903.8	16.43	1911.22	16.43	1.00	3.3	1849.10	20.53
Galula1-930'-1120'-8	0.11879	0.00163	0.36522	0.00371	6.22351	0.15518	1938.1	24.42	2006.9	17.54	2017.38	17.54	1.01	3.9	1938.10	24.42
Galula1-930'-1120'-9	0.13898	0.00182	0.39106	0.0047	8.11316	0.18872	2214.6	22.52	2127.7	21.77	2111.49	21.77	1.02	4.9	2214.60	22.52
Galula1-930'-1120'-10	0.07555	0.00095	0.18383	0.00186	1.93135	0.03088	1083.1	25.03	1087.9	10.11	1088.08	10.11	0.93	0.5	1083.10	25.03
Galula1-930'-1120'-11	0.11808	0.00127	0.32505	0.00323	5.3543	0.07078	1927.3	19.08	1814.3	15.71	1799.92	15.71	0.99	7.1	1927.30	19.08
Galula1-930'-1120'-12	0.06025	0.00102	0.10232	0.00109	0.88068	0.0184	612.6	36.33	628	6.35	628.31	6.35	0.89	2.5	628.31	6.35
Galula1-930'-1120'-13	0.11612	0.0012	0.37069	0.00364	6.0553	0.06926	1897.3	18.48	2036.6	17.1	2053.51	17.10	1.01	7.6	1897.30	18.48
Galula1-930'-1120'-14	0.07589	0.00085	0.18929	0.00187	2.0113	0.02622	1092.1	22.35	1117.6	10.16	1118.75	10.16	0.93	2.4	1092.10	22.35
Galula1-930'-1120'-15	0.11765	0.00141	0.36274	0.0037	5.99992	0.11319	1920.8	21.33	1995.1	17.49	2006.32	17.49	1.01	4.3	1920.80	21.33
Galula1-930'-1120'-16	0.07637	0.00098	0.1901	0.00192	2.0841	0.03478	1104.7	25.32	1121.9	10.41	1122.75	10.41	0.93	1.6	1104.70	25.32
Galula1-930'-1120'-18	0.13824	0.00149	0.44068	0.00447	8.5056	0.12362	2205.3	18.63	2353.7	19.98	2388.02	19.98	1.04	7.7	2205.30	18.63
Galula1-930'-1120'-19	0.12603	0.00129	0.43025	0.00429	6.57922	0.07137	2043.4	17.96	2306.9	19.34	2362.20	19.34	1.04	13.5	2043.40	17.96
Galula1-930'-1120'-20	0.12307	0.00135	0.37321	0.00385	6.41311	0.0945	2001.2	19.32	2044.5	18.07	2051.48	18.07	1.01	2.5	2001.20	19.32
Galula1-930'-1120'-21	0.1163	0.00125	0.37118	0.00373	6.15555	0.08439	1900.1	19.18	2035	17.55	2055.84	17.55	1.01	7.6	1900.10	19.18
Galula1-930'-1120'-22	0.12466	0.00134	0.38533	0.00386	6.84338	0.09312	2024	18.89	2101.1	17.97	2114.37	17.97	1.02	4.3	2024.00	18.89
Galula1-930'-1120'-23	0.07501	0.00097	0.13983	0.0014	1.45887	0.02318	1068.8	25.82	843.7	7.93	836.10	7.93	0.91	27.8	836.10	7.93
Galula1-930'-1120'-24	0.11641	0.00124	0.35471	0.00349	5.8466	0.07676	1901.9	19.04	1957	16.62	1965.02	16.62	1.01	3.2	1901.90	19.04
Galula1-930'-1120'-25	0.1164	0.00136	0.35942	0.0036	5.97843	0.10588	1901.7	20.81	1979.4	17.06	1990.88	17.06	1.01	4.5	1901.70	20.81
Galula1-930'-1120'-27	0.11902	0.00131	0.34221	0.00342	5.65633	0.083	1941.5	19.61	1897.3	16.41	1891.17	16.41	1.00	2.7	1941.50	19.61
Galula1-930'-1120'-28	0.12522	0.00133	0.3296	0.00323	5.66451	0.07068	2031.9	18.72	1836.5	15.67	1810.06	15.67	1.00	12.3	2031.90	18.72
Galula1-930'-1120'-29	0.07366	0.00088	0.1439	0.00146	1.48987	0.02108	1032.3	23.69	866.7	8.24	860.97	8.24	0.91	19.9	860.97	8.24
Galula1-930'-1120'-31	0.1934	0.00199	0.52627	0.00516	14.13056	0.17184	2771.3	16.79	2725.7	21.78	2707.23	21.78	1.08	2.4	2771.30	16.79
Galula1-930'-1120'-32	0.19836	0.00206	0.5271	0.00524	14.74066	0.19454	2812.8	16.83	2729.2	22.14	2694.82	22.14	1.08	4.4	2812.80	16.83
Galula1-930'-1120'-33	0.08028	0.00099	0.17565	0.0018	1.97907	0.03104	1203.8	24.2	1043.2	9.89	1035.81	9.89	0.92	16.2	1203.80	24.20
Galula1-930'-1120'-35	0.19106	0.00203	0.53794	0.00532	14.31984	0.21904	2751.3	17.33	2774.8	22.29	2784.88	22.29	1.08	1.2	2751.30	17.33
Galula1-930'-1120'-36	0.08594	0.00091	0.17771	0.00176	2.12283	0.02448	1336.9	20.4	1054.5	9.62	1040.76	9.62	0.92	28.5	1336.90	20.40
Galula1-930'-1120'-37	0.05316	0.00339	0.0012	0.00002	0.0089	0.00056	335.5	137.69	7.7	0.13	7.66	0.13	0.83	4278.5	7.66	0.13
Galula1-930'-1120'-38	0.07638	0.00089	0.1831	0.00184	1.96552	0.02723	1105	22.99	1083.9	10.02	1082.90	10.02	0.93	2.0	1105.00	22.99
Galula1-930'-1120'-39	0.19454	0.00217	0.63154	0.00646	17.43562	0.3502	2780.9	18.14	3155.7	25.51	3472.69	25.51	1.11	19.9	2780.90	18.14
Galula1-930'-1120'-40	0.11748	0.00128	0.35803	0.00354	5.97519	0.08471	1918.2	19.38	1972.8	16.82	1980.86	16.82	1.01	3.2	1918.20	19.38
Galula1-930'-1120'-41	0.06125	0.00096	0.09666	0.00104	0.84397	0.01593	648.2	33.2	594.8	6.09	593.76	6.09	0.88	9.2	593.76	6.09
Galula1-930'-1120'-42	0.12283	0.00128	0.36333	0.00361	6.15761	0.0736	1997.7	18.41	1997.9	17.07	1997.97	17.07	1.01	0.0	1997.70	18.41
Galula1-930'-1120'-43	0.12703	0.00155	0.37105	0.00372	6.5203	0.12607	2057.2	21.32	2034.3	17.5	2030.60	17.50	1.01	1.3	2057.20	21.32
Galula1-930'-1120'-45	0.13941	0.00143	0.38214	0.00374	7.32906	0.07981	2219.8	17.62	2086.3	17.45	2062.15	17.45	1.02	7.6	2219.80	17.62
Galula1-930'-1120'-46	0.12463	0.00142	0.36492	0.00356	6.20983	0.09846	2023.5	20.09	2005.4	16.83	2002.61	16.83	1.01	1.0	2023.50	20.09
Galula1-930'-1120'-47	0.1154	0.00123	0.35429	0.00348	5.68605	0.07462	1886.1	19.11	1955	16.57	1964.92	16.57	1.01	4.0	1886.10	19.11

Table S5. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_1140-1310

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance		Preferred Age	
Galula-1_1140-1310	$^{207}\text{Pb}/^{206}\text{Pb}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{207}\text{Pb}/^{235}\text{U}$	Err 1σ	$^{207}\text{Pb}/^{206}\text{Pb}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$ Age corrected	Err 1σ	Common $^{207}\text{Pb}/^{206}\text{Pb}$ Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
	Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct $^{206}\text{Pb}/^{238}\text{U}$ ages for common Pb.										Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.					
Grain ID:																
Galula-1140-1310-1	0.12204	0.00129	0.33287	0.00327	5.66173	0.07116	1986.2	18.71	1852.3	15.79	1834.21	15.79	1.00	8.3	1986.20	18.71
Galula-1140-1310-2	0.06109	0.00505	0.00115	0.00002	0.00973	0.00079	642.3	168.32	7.4	0.16	7.27	0.16	0.83	8736.9	7.27	0.16
Galula-1140-1310-3	0.13707	0.00151	0.32906	0.0032	6.28388	0.09251	2190.5	19.06	1833.8	15.51	1783.10	15.51	1.00	22.8	2190.50	19.06
Galula-1140-1310-4	0.06515	0.00312	0.00106	0.00002	0.00953	0.00045	779.3	97.67	6.8	0.1	6.66	0.10	0.83	11593.4	6.66	0.10
Galula-1140-1310-5	0.07294	0.00117	0.16789	0.00171	1.71219	0.03807	1012.3	32.18	1000.5	9.43	999.99	9.43	0.92	1.2	999.99	9.43
Galula-1140-1310-6	0.07447	0.00104	0.15808	0.00157	1.63878	0.02957	1053.9	28.15	946.1	8.74	941.92	8.74	0.92	11.9	941.92	8.74
Galula-1140-1310-7	0.07544	0.00099	0.17754	0.00181	1.88532	0.03217	1080.4	26.13	1053.5	9.89	1052.33	9.89	0.92	2.7	1080.40	26.13
Galula-1140-1310-8	0.06181	0.00102	0.09052	0.00093	0.76397	0.01494	667.5	34.86	558.6	5.50	556.60	5.50	0.88	19.9	556.60	5.50
Galula-1140-1310-9	0.05109	0.00286	0.00109	0.00002	0.00771	0.00042	245	124.07	7	0.11	6.98	0.11	0.83	3410.6	6.98	0.11
Galula-1140-1310-10	0.05889	0.00088	0.0912	0.00092	0.75142	0.01302	562.9	31.82	562.6	5.44	562.62	5.44	0.88	0.0	562.62	5.44
Galula-1140-1310-11	0.06577	0.00082	0.12747	0.00128	1.17131	0.01716	799	26.03	773.4	7.31	772.70	7.31	0.90	3.4	772.70	7.31
Galula-1140-1310-12	0.11824	0.00125	0.3211	0.00324	5.39062	0.06732	1929.9	18.8	1795.1	15.81	1778.19	15.81	0.99	8.5	1929.90	18.80
Galula-1140-1310-13	0.08041	0.0009	0.15837	0.00163	1.71034	0.02212	1207.2	21.81	947.7	9.09	937.16	9.09	0.92	28.8	937.16	9.09
Galula-1140-1310-14	0.07703	0.00091	0.16926	0.00171	1.83414	0.02602	1122	23.33	1008	9.42	1003.17	9.42	0.92	11.8	1122.00	23.33
Galula-1140-1310-15	0.07605	0.00087	0.16646	0.00166	1.79223	0.02402	1096.3	22.82	992.6	9.15	988.27	9.15	0.92	10.9	988.27	9.15
Galula-1140-1310-16	0.07482	0.00089	0.16384	0.00162	1.69336	0.02382	1063.7	23.7	978.1	8.97	974.63	8.97	0.92	9.1	974.63	8.97
Galula-1140-1310-17	0.11771	0.00123	0.34026	0.00333	5.60262	0.06587	1921.8	18.56	1887.9	16.02	1883.31	16.02	1.00	2.0	1921.80	18.56
Galula-1140-1310-18	0.11466	0.00142	0.33628	0.00343	4.8957	0.09509	1874.6	22.24	1868.8	16.54	1867.98	16.54	1.00	0.4	1874.60	22.24
Galula-1140-1310-19	0.0615	0.00133	0.08936	0.001	0.7627	0.02029	656.9	45.71	551.7	5.91	549.84	5.91	0.88	19.5	549.84	5.91
Galula-1140-1310-21	0.0731	0.00093	0.15966	0.00161	1.63993	0.02571	1016.7	25.43	954.9	8.96	952.50	8.96	0.92	6.7	952.50	8.96
Galula-1140-1310-22	0.12591	0.00135	0.35453	0.00344	6.28306	0.08339	2041.7	18.85	1956.2	16.37	1943.29	16.37	1.01	5.1	2041.70	18.85
Galula-1140-1310-23	0.1221	0.0013	0.32865	0.00324	5.5653	0.07227	1987.1	18.87	1831.8	15.73	1811.28	15.73	0.99	9.7	1987.10	18.87
Galula-1140-1310-24	0.12662	0.0016	0.37134	0.00374	6.28913	0.13327	2051.5	22.17	2035.7	17.59	2033.12	17.59	1.01	0.9	2051.50	22.17
Galula-1140-1310-25	0.13852	0.00161	0.3464	0.00334	6.70246	0.11005	2208.8	19.98	1917.4	15.99	1872.41	15.99	1.00	18.0	2208.80	19.98
Galula-1140-1310-26	0.06577	0.00091	0.11859	0.00123	1.1012	0.0184	799.1	28.62	722.5	7.08	720.47	7.08	0.90	0.9	720.47	7.08
Galula-1140-1310-27	0.07673	0.00102	0.18709	0.0019	2.02565	0.03568	1114.2	26.26	1105.6	10.33	1105.18	10.33	0.93	10.8	1114.20	26.26
Galula-1140-1310-29	0.07322	0.00084	0.15733	0.00157	1.61824	0.02134	1020.1	23.02	941.9	8.73	938.96	8.73	0.91	8.6	938.96	8.73
Galula-1140-1310-30	0.07507	0.00085	0.17613	0.00173	1.80671	0.02329	1070.3	22.62	1045.8	9.47	1044.72	9.47	0.92	2.4	1070.30	22.62
Galula-1140-1310-31	0.20046	0.0021	0.5336	0.0036	14.9812	0.21115	2830	16.98	2756.6	22.11	2725.28	22.11	1.08	3.8	2830.00	16.98
Galula-1140-1310-33	0.12636	0.00143	0.34946	0.00345	6.12414	0.09249	2048	19.86	1932	16.46	1914.86	16.46	1.00	7.0	2048.00	19.86
Galula-1140-1310-35	0.07633	0.00098	0.17323	0.00181	1.84962	0.03051	1103.8	25.45	1029.9	9.92	1026.67	9.92	0.92	7.5	1103.80	25.45
Galula-1140-1310-36	0.07502	0.00144	0.17404	0.00196	1.86318	0.05252	1068.9	38.17	1034.3	10.75	1032.83	10.75	0.92	3.5	1068.90	38.17
Galula-1140-1310-37	0.07667	0.00105	0.19354	0.00196	2.09259	0.03892	1112.7	27.06	1140.5	10.58	1141.91	10.58	0.93	2.6	1112.70	27.06
Galula-1140-1310-38	0.11832	0.00161	0.34942	0.00365	5.61194	0.13212	1931	24.17	1931.8	17.42	1931.95	17.42	1.00	0.0	1931.00	24.17
Galula-1140-1310-39	0.06108	0.00152	0.10243	0.00115	0.87041	0.02784	642.1	52.71	628.6	6.75	628.35	6.75	0.99	2.2	628.35	6.75
Galula-1140-1310-40	0.11434	0.00138	0.34279	0.00346	5.46329	0.10215	1869.5	21.56	1900.1	16.62	1904.22	16.62	1.00	1.8	1869.50	21.56
Galula-1140-1310-41	0.12124	0.00129	0.34402	0.00338	5.73581	0.07412	1974.6	18.83	1906	16.2	1896.31	16.20	1.00	4.1	1974.60	18.83
Galula-1140-1310-43	0.183	0.00188	0.49455	0.00486	12.57351	0.15102	2680.3	16.93	2590.3	20.96	2559.70	20.96	1.06	4.7	2680.30	16.93
Galula-1140-1310-44	0.12592	0.0017	0.35439	0.00363	6.12076	0.13061	2041.8	23.61	1955.5	17.29	1942.51	17.29	1.01	5.1	2041.80	23.61
Galula-1140-1310-45	0.12356	0.00156	0.35453	0.00367	6.15526	0.12931	2008.3	22.26	1956.7	17.46	1948.42	17.46	1.01	3.1	2008.30	22.26
Galula-1140-1310-46	0.12129	0.00138	0.34942	0.00346	5.49593	0.10215	1824	20.47	1866.2	16.7	1824.77	16.7	1.00	1.8	1824.00	20.47
Galula-1140-1310-48	0.18301	0.00188	0.47619	0.0046	10.57927	0.13137	2680.3	16.94	2510.7	20.09	2457.40	20.09	1.06	9.1	2680.30	16.94
Galula-1140-1310-49	0.07372	0.0013	0.14889	0.00157	1.48646	0.03581	1033.8	35.19	894.7	8.8	889.75	8.80	0.91	16.2	889.75	8.80
Galula-1140-1310-50	0.11529	0.00125	0.33529	0.00335	5.42856	0.07327	1884.4	19.33	1864	16.19	1861.28	16.19	1.00	1.2	1884.40	19.33

Table S6. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_1330-1480

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Ages		
Galula-1_1330-1480	$^{207}\text{Pb}/^{206}\text{Pb}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{207}\text{Pb}/^{235}\text{U}$	Err 1σ	$^{207}\text{Pb}/^{206}\text{Pb}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$ Age corrected	Err 1σ	Common $^{207}\text{Pb}/^{206}\text{Pb}$ Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
	Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct $^{206}\text{Pb}/^{238}\text{U}$ ages for common Pb.						Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.									
Grain ID:																
Galula-1330-1480-1	0.07092	0.00123	0.159	0.00158	1.59304	0.03877	955.20	35.14	951.20	8.79	951.07	8.79	0.92	0.4	951.07	8.79
Galula-1330-1480-2	0.07499	0.00085	0.18037	0.00165	1.89025	0.02341	1068.10	22.55	1069.00	9.01	1069.03	9.01	0.93	0.1	1068.10	22.55
Galula-1330-1480-3	0.07374	0.00079	0.17497	0.00163	1.80492	0.02044	1034.50	21.24	1039.40	8.93	1039.66	8.93	0.92	0.5	1034.50	21.24
Galula-1330-1480-4	0.05974	0.00114	0.09986	0.00108	0.86361	0.02065	594.10	40.98	613.60	6.34	613.96	6.34	0.89	3.2	613.96	6.34
Galula-1330-1480-5	0.19901	0.00222	0.52548	0.00487	15.02157	0.25795	2818.10	18.08	2722.40	20.57	2683.21	20.57	1.08	5.0	2818.10	18.08
Galula-1330-1480-6	0.07726	0.00099	0.17276	0.00169	1.83913	0.02977	1127.80	25.40	1027.30	9.28	1022.90	9.28	0.92	10.3	1127.80	25.40
Galula-1330-1480-7	0.11491	0.00125	0.3319	0.00309	5.94487	0.08291	1878.50	19.41	1847.60	14.97	1843.59	14.97	1.00	1.9	1878.50	19.41
Galula-1330-1480-8	0.0589	0.00084	0.08933	0.00085	0.7416	0.01207	563.50	30.66	551.60	5.05	551.36	5.05	0.88	2.2	551.36	5.05
Galula-1330-1480-9	0.11481	0.00131	0.32822	0.00308	5.194	0.07999	1876.80	20.42	1828.80	14.94	1823.75	14.94	0.99	2.9	1876.80	20.42
Galula-1330-1480-10	0.07236	0.00147	0.16503	0.00182	1.69455	0.04954	996.10	40.72	984.70	10.05	984.22	10.05	0.92	1.2	984.22	10.05
Galula-1330-1480-11	0.11758	0.00125	0.35049	0.00329	5.79624	0.07095	1919.70	18.99	1936.90	15.73	1939.38	15.73	1.00	1.0	1919.70	18.99
Galula-1330-1480-12	0.11219	0.00138	0.33325	0.00332	5.40094	0.06963	1835.20	22.15	1854.10	16.06	1856.54	16.06	1.00	1.1	1835.20	22.15
Galula-1330-1480-13	0.11435	0.00129	0.33812	0.00317	5.40983	0.06965	1869.60	20.25	1877.60	15.28	1878.67	15.28	1.00	0.5	1869.60	20.25
Galula-1330-1480-14	0.07356	0.00095	0.18056	0.00176	1.95369	0.02889	1029.40	24.49	1070.00	9.33	1071.85	9.33	0.93	10.2	1029.40	24.49
Galula-1330-1480-15	0.06458	0.00598	0.00147	0.00004	0.01339	0.00121	760.70	183.99	9.50	0.23	9.25	0.23	0.83	8125.7	9.25	0.23
Galula-1330-1480-16	0.11467	0.00125	0.34843	0.00324	5.74103	0.07605	1874.70	19.48	1927.10	15.5	1934.38	15.50	1.00	3.1	1874.70	19.48
Galula-1330-1480-17	0.115	0.00131	0.34262	0.00321	5.75209	0.09086	1879.90	20.31	1899.30	15.43	1901.89	15.43	1.00	1.2	1879.90	20.31
Galula-1330-1480-18	0.1134	0.00144	0.33733	0.00326	5.53773	0.11321	1854.50	22.78	1873.80	15.7	1876.34	15.70	1.00	1.2	1854.50	22.78
Galula-1330-1480-20	0.05927	0.00149	0.2483	0.00252	3.20685	0.0842	4487.30	30.01	1429.70	12.99	1425.30	12.99	0.96	4.3	4487.30	30.01
Galula-1330-1480-21	0.05906	0.00086	0.09921	0.00084	0.74457	0.02141	569.20	31.34	550.90	4.99	550.54	4.99	0.88	2.6	550.54	4.99
Galula-1330-1480-23	0.07486	0.00089	0.17497	0.00168	1.88739	0.02609	1064.80	23.60	1064.10	9.19	1064.05	9.19	0.93	0.1	1064.80	23.60
Galula-1330-1480-24	0.05948	0.00217	0.08761	0.0011	0.71856	0.03321	584.70	77.21	541.40	6.55	540.63	6.55	0.88	8.2	540.63	6.55
Galula-1330-1480-25	0.11371	0.00153	0.33301	0.00327	6.59062	0.18689	1859.60	24.06	1852.90	15.81	1852.10	15.81	1.00	0.4	1859.60	24.06
Galula-1330-1480-26	0.06696	0.001	0.1246	0.00121	1.18745	0.02192	836.50	30.74	757.00	6.95	754.79	6.95	0.90	10.8	754.79	6.95
Galula-1330-1480-27	0.06377	0.00082	0.11891	0.00115	1.07025	0.01588	733.90	26.92	722.00	6.62	724.04	6.62	0.90	1.4	724.04	6.62
Galula-1330-1480-28	0.11417	0.00141	0.34062	0.00329	5.70763	0.09279	1866.80	22.18	1808.80	15.69	1803.65	15.69	0.98	3.8	1866.80	22.18
Galula-1330-1480-30	0.05208	0.00409	0.00115	0.00002	0.00861	0.00065	332.20	165.48	7.40	0.14	7.34	0.14	0.83	4423.4	7.34	0.14
Galula-1330-1480-31	0.11459	0.00129	0.33067	0.00309	5.39274	0.07451	1873.50	20.12	1841.60	14.95	1837.54	14.95	1.00	2.0	1873.50	20.12
Galula-1330-1480-32	0.07386	0.001	0.17814	0.00173	1.84796	0.03141	1037.60	26.99	1056.80	9.49	1057.65	9.49	0.93	1.9	1037.60	26.99
Galula-1330-1480-33	0.11528	0.00146	0.33284	0.00321	5.47368	0.09897	1884.30	22.68	1852.10	15.54	1847.95	15.54	1.00	2.0	1884.30	22.68
Galula-1330-1480-34	0.07793	0.00107	0.19126	0.00187	2.11693	0.03856	1145.20	27.04	1128.20	10.13	1127.36	10.13	0.93	1.6	1145.20	27.04
Galula-1330-1480-36	0.07198	0.001	0.17784	0.00171	1.79392	0.03212	1068.20	27.96	1055.20	9.36	1057.82	9.36	0.92	6.1	1068.20	27.96
Galula-1330-1480-37	0.07427	0.00093	0.18159	0.00171	1.89609	0.02914	1048.80	25.15	1075.70	9.33	1076.87	9.33	0.93	1.0	1048.80	25.15
Galula-1330-1480-38	0.12371	0.00147	0.36645	0.00346	6.29943	0.09921	2010.40	20.97	2017.40	16.33	2018.49	16.33	1.01	0.4	2010.40	20.97
Galula-1330-1480-39	0.10852	0.00125	0.33474	0.00318	5.14658	0.07494	1774.70	20.87	1869.50	15.32	1881.62	15.32	1.00	5.7	1774.70	20.87
Galula-1330-1480-40	0.11544	0.00137	0.34012	0.00323	5.51765	0.08955	1886.80	21.27	1887.30	15.56	1887.31	15.56	1.00	0.0	1886.80	21.27
Galula-1330-1480-41	0.11584	0.00134	0.3401	0.00319	5.5464	0.08369	1893.00	20.73	1887.20	15.34	1886.36	15.34	1.00	0.4	1893.00	20.73
Galula-1330-1480-42	0.11414	0.00132	0.33784	0.00317	5.30234	0.07819	1864.20	20.88	1864.30	15.25	1877.58	15.25	1.00	0.6	1864.20	20.88
Galula-1330-1480-43	0.07051	0.00132	0.15882	0.00164	1.57382	0.02385	610.70	40.9321	617.50	6.19	617.80	6.19	0.99	1.9	610.70	40.93
Galula-1330-1480-45	0.07405	0.00088	0.17596	0.00164	1.83503	0.02491	1046.80	23.86	1044.80	9.01	1044.95	9.01	0.92	0.2	1046.80	23.86
Galula-1330-1480-46	0.1162	0.00136	0.35601	0.00336	5.79249	0.08427	1898.60	20.92	1953.30	15.97	1972.61	15.97	1.01	3.8	1898.60	20.92
Galula-1330-1480-48	0.11398	0.00203	0.35407	0.00377	5.44204	0.19671	1863.80	31.86	1964.10	17.95	1966.82	17.95	1.01	5.2	1863.80	31.86
Galula-1330-1480-49	0.11763	0.00161	0.34777	0.00342	5.66388	0.12232	1920.50	24.38	1923.90	16.35	1934.42	16.35	1.00	0.2	1920.50	24.38
Galula-1330-1480-50	0.11455	0.00151	0.35359	0.00342	5.78849	0.10997	1912.20	24.32	1945.90	16.38	1949.62	16.38	1.00	0.8	1912.20	24.32
Galula-1330-1480-51	0.11415	0.00151	0.35688	0.00329	5.45831	0.11231	1872.10	23.59	1865.90	15.88	1865.04	15.88	1.00	0.4	1872.10	23.59
Galula-1330-1480-52	0.05991	0.00071	0.10051	0.00094	0.81727	0.01026	600.40	25.33	617.40	5.48	617.74	5.48	0.89	2.8	617.74	5.48
Galula-1330-1480-55	0.10174	0.002	0.30817	0.0035	4.66623	0.15412	1656.10	36.05	1731.70	17.24	1739.86	17.24	0.99	4.8	1656.10	36.05

Table S7. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_1500-1690

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_1500-1690	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁶ Pb/ ²³⁸ U ages for common Pb. See additional sheet for explanation.																
Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.																
Grain ID:																
Galula-1-1500-1690-1	0.1149	0.00122	0.32266	0.00317	5.15923	0.06569	1878.4	19.05	1802.7	15.46	1793.31	15.46	0.99	4.7	1878.40	19.05
Galula-1-1500-1690-3	0.07498	0.00093	0.17123	0.00171	1.7838	0.02757	1068	24.83	1018.9	9.39	1016.80	9.39	0.92	5.0	1068.00	24.83
Galula-1-1500-1690-4	0.11595	0.00145	0.33021	0.00335	5.50843	0.11182	1894.6	22.26	1839.4	16.25	1832.26	16.25	1.00	3.4	1894.60	22.26
Galula-1-1500-1690-5	0.12016	0.00127	0.34983	0.00343	5.81865	0.07619	1958.6	18.8	1933.8	16.38	1930.22	16.38	1.00	1.5	1958.60	18.80
Galula-1-1500-1690-6	0.11602	0.00124	0.33359	0.0033	5.32706	0.06882	1895.8	19.07	1855.8	15.96	1850.51	15.96	1.00	2.4	1895.80	19.07
Galula-1-1500-1690-7	0.18665	0.00205	0.51127	0.0051	13.34283	0.23807	2712.8	17.96	2662.1	21.75	2643.17	21.75	1.07	2.6	2712.80	17.96
Galula-1-1500-1690-8	0.11714	0.00126	0.34909	0.00343	5.82289	0.07781	1913	19.11	1930.2	16.4	1932.68	16.40	1.00	1.0	1913.00	19.11
Galula-1-1500-1690-9	0.11593	0.00143	0.34305	0.00348	5.5698	0.11059	1894.4	22.02	1901.3	16.68	1902.27	16.68	1.00	0.4	1894.40	22.02
Galula-1-1500-1690-10	0.1093	0.00123	0.31407	0.00313	4.77085	0.07246	1787.8	20.42	1760.7	15.34	1757.57	15.34	0.99	1.7	1787.80	20.42
Galula-1-1500-1690-15	0.11761	0.00129	0.33927	0.00338	5.58349	0.08051	1920.2	19.55	1883.2	16.27	1878.13	16.27	1.00	2.2	1920.20	19.55
Galula-1-1500-1690-16	0.07676	0.00095	0.17876	0.00179	1.91642	0.02959	1115.1	24.46	1060.2	9.77	1057.71	9.77	0.93	5.4	1115.10	24.46
Galula-1-1500-1690-17	0.11625	0.00124	0.33929	0.00333	5.53848	0.07626	1899.3	19.1	1883.2	16.04	1881.09	16.04	1.00	1.4	1899.30	19.10
Galula-1-1500-1690-18	0.1179	0.00129	0.34413	0.0034	5.62812	0.08085	1924.7	19.49	1906.5	16.31	1903.99	16.31	1.00	1.1	1924.70	19.49
Galula-1-1500-1690-19	0.11827	0.00143	0.34255	0.00345	5.52891	0.10407	1930.2	21.44	1898.9	16.56	1894.60	16.56	1.00	1.9	1930.20	21.44
Galula-1-1500-1690-20	0.12371	0.00132	0.35502	0.0035	6.08848	0.08069	2010.4	18.83	1958.5	16.65	1950.76	16.65	1.01	3.1	2010.40	18.83
Galula-1-1500-1690-22	0.1146	0.00125	0.33921	0.00335	5.4811	0.07651	1873.6	19.48	1882.9	16.13	1884.10	16.13	1.00	0.6	1873.60	19.48
Galula-1-1500-1690-23	0.11607	0.0013	0.34484	0.00343	5.57005	0.08579	1896.6	20	1909.9	16.45	1911.75	16.45	1.00	0.8	1896.60	20.00
Galula-1-1500-1690-24	0.05822	0.00088	0.08378	0.00085	0.6822	0.01193	537.4	33.44	518.6	5.06	518.33	5.06	0.88	3.7	518.33	5.06
Galula-1-1500-1690-25	0.0745	0.00085	0.18181	0.00179	1.87587	0.02515	1054.8	23.2	1076.8	9.79	1077.84	9.79	0.93	2.1	1054.80	23.20
Galula-1-1500-1690-26	0.11322	0.00154	0.34149	0.0036	5.59947	0.13469	1851.8	24.39	1893.8	17.29	1899.47	17.29	1.00	2.5	1851.80	24.39
Galula-1-1500-1690-27	0.11618	0.00121	0.34488	0.00338	5.54888	0.06468	1898.3	18.59	1910.1	16.22	1911.74	16.22	1.00	0.7	1898.30	18.59
Galula-1-1500-1690-28	0.11533	0.00132	0.32765	0.00328	5.21193	0.08437	1885	20.49	1827	15.92	1819.59	15.92	0.99	3.6	1885.00	20.49
Galula-1-1500-1690-29	0.12323	0.00129	0.3671	0.00357	6.27047	0.07573	2003.6	18.44	2015.7	16.81	2017.67	16.81	1.01	0.7	2003.60	18.44
Galula-1-1500-1690-30	0.11554	0.00132	0.34901	0.00347	5.76046	0.0947	1888.3	20.38	1929.9	16.57	1935.69	16.57	1.00	2.4	1888.30	20.38
Galula-1-1500-1690-31	0.07008	0.0009	0.14823	0.00148	1.44719	0.02246	930.6	26.01	891	8.28	889.67	8.28	0.91	4.6	889.67	8.28
Galula-1-1500-1690-32	0.05939	0.00133	0.09205	0.00102	0.77029	0.02129	581.4	47.76	567.6	6.02	567.40	6.02	0.88	2.5	567.40	6.02
Galula-1-1500-1690-33	0.12286	0.00131	0.36966	0.00363	6.2708	0.08189	1998.1	18.73	2027.8	17.09	2032.51	17.09	0.91	1.7	1998.10	18.73
Galula-1-1500-1690-34	0.04787	0.00354	0.00071	0.00001	0.00497	0.00334	91.7	167.68	4.6	0.08	4.57	0.08	0.83	1908.7	4.57	0.08
Galula-1-1500-1690-35	0.11567	0.00125	0.30913	0.00306	5.06667	0.06823	1890.3	19.33	1736.4	15.06	1718.36	15.06	0.99	10.0	1890.30	19.33
Galula-1-1500-1690-36	0.1164	0.00126	0.3698	0.00361	6.08255	0.0845	1901.7	19.37	2028.5	17.01	2048.00	17.01	1.01	7.1	1901.70	19.37
Galula-1-1500-1690-37	0.07731	0.00095	0.18678	0.00186	2.01128	0.03099	1129.2	24.26	1103.9	10.11	1102.70	10.11	0.93	2.4	1129.20	24.26
Galula-1-1500-1690-38	0.1214	0.00132	0.37024	0.00365	6.42566	0.09371	1976.8	19.3	2030.5	17.18	2039.01	17.18	1.01	3.1	1976.80	19.30
Galula-1-1500-1690-39	0.11519	0.00124	0.35007	0.00345	5.68198	0.07796	1882.9	19.33	1934.9	16.48	1942.25	16.48	1.00	3.1	1882.90	19.30
Galula-1-1500-1690-40	0.18428	0.00222	0.54197	0.00559	14.30571	0.36666	2691.8	19.76	2791.7	23.37	2834.70	23.37	1.08	5.0	2691.80	19.76
Galula-1-1500-1690-41	0.1178	0.00136	0.33376	0.00335	5.40133	0.09048	1923.1	20.57	1856.6	16.21	1847.77	16.21	1.00	4.1	1923.10	20.57
Galula-1-1500-1690-42	0.04378	0.0038	0.00115	0.00002	0.00695	0.00059	77.79	7.4	0.15	0.15	7.43	0.15	0.83	98.7	7.43	0.15
Galula-1-1500-1690-43	0.1157	0.00158	0.33515	0.0035	5.54951	0.1351	1890.8	24.37	1863.3	16.89	1859.67	16.89	1.00	1.7	1890.80	24.37
Galula-1-1500-1690-45	0.07478	0.00089	0.17472	0.00174	1.8264	0.02643	1062.7	23.88	1038.1	9.52	1037.00	9.52	0.92	2.5	1062.70	23.88
Galula-1-1500-1690-46	0.11557	0.0013	0.34618	0.00347	5.59209	0.08729	1888.7	20.1	1916.3	16.6	1920.14	16.60	1.00	1.6	1888.70	20.10
Galula-1-1500-1690-47	0.12821	0.00133	0.37177	0.00364	6.67803	0.07743	2073.6	18.14	2037.7	17.1	2031.83	17.10	1.01	2.1	2073.60	18.14
Galula-1-1500-1690-48	0.07582	0.0009	0.18943	0.0019	1.94143	0.02968	1090.2	24.37	1078.4	9.88	1077.84	9.88	0.93	1.1	1090.20	24.37
Galula-1-1500-1690-51	0.05119	0.00094	0.03029	0.00031	0.21445	0.00417	249.5	41.91	192.4	1.97	192.07	1.97	0.85	29.9	192.07	1.97
Galula-1-1500-1690-52	0.07699	0.00085	0.18555	0.00183	1.98674	0.02472	1120.9	21.82	1097.2	9.92	1096.10	9.92	0.93	2.3	1120.90	21.82
Galula-1-1500-1690-53	0.11688	0.00122	0.34472	0.00342	5.58024	0.06648	1909	18.66	1909.3	16.37	1909.38	16.37	1.00	0.0	1909.00	18.66
Galula-1-1500-1690-54	0.11503	0.00125	0.34031	0.00336	5.47728	0.07591	1880.3	19.43	1888.2	16.15	1889.21	16.15	1.00	0.5	1880.30	19.43
Galula-1-1500-1690-56	0.05873	0.00075	0.08538	0.00085	0.7028	0.00999	557.2	27.72	528.1	5.04	527.67	5.04	0.88	5.6	527.67	5.04
Galula-1-1500-1690-57	0.0663	0.00136	0.03216	0.00036	0.17834	0.00836	2051.9	18.54	1948.3	16.5	1929.92	16.5	0.6	6.3	2051.80	18.54
Galula-1-1500-1690-58	0.11681	0.00126	0.34029	0.00335	5.49649	0.07998	1908	19.25	1888.1	16.13	1885.36	16.13	1.00	1.2	1888.10	19.25
Galula-1-1500-1690-59	0.07386	0.00083	0.17288	0.0017	1.77867	0.0227	1037.5	22.5	1028	9.35	1027.55	9.35	0.92	1.0	1037.50	22.50
Galula-1-1500-1690-60	0.05956	0.00087	0.08456	0.00085	0.72017	0.01216	587.7	31.51	523.3	5.07	522.20	5.07	0.88	12.5	522.20	5.07

Table S8. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_1730-1970

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁶ Pb/ ²³⁸ U ages for common Pb.																
Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.																
Grain ID:																
Galula-1_1730-1970																
HW9-GAL-1730-1970-2	0.05457	0.00322	0.00097	0.00011	0.00732	0.00044	394.5	130.78	6.2	0.09	6.18	0.09	0.83	6380.4	6.18	
HW9-GAL-1730-1970-3	0.1176	0.00124	0.34355	0.00001	5.60579	0.06917	1920	18.79	1903.7	14.9	1901.47	14.90	1.00	1.00	1920.00	18.79
HW9-GAL-1730-1970-4	0.05905	0.00089	0.09828	0.00091	0.80632	0.01413	568.8	32.4	604.3	5.33	605.01	5.33	0.88	60.0	605.01	5.33
HW9-GAL-1730-1970-5	0.07389	0.00085	0.16927	0.00154	1.73016	0.02239	1038.5	22.93	1008.1	4.89	1006.83	4.89	0.92	3.1	1038.50	22.93
HW9-GAL-1730-1970-6	0.08957	0.00124	0.24448	0.00232	3.15286	0.06712	1416.2	26.2	1410	11.99	1409.47	11.99	0.96	0.5	1416.20	26.20
HW9-GAL-1730-1970-7	0.11622	0.00155	0.33056	0.00315	6.66956	0.12088	1898.9	23.81	1841.1	15.28	1833.61	15.28	1.00	3.6	1898.90	23.80
HW9-GAL-1730-1970-8	0.0578	0.00282	0.00099	0.00001	0.00708	0.00038	521.1	103.79	6.4	0.09	6.28	0.09	0.83	8192.0	6.28	0.09
HW9-GAL-1730-1970-10	0.11505	0.00103	0.31041	0.0028	4.96952	0.07653	1880.6	20.2	1742.7	13.79	1726.50	13.79	0.99	8.9	1880.60	20.20
HW9-GAL-1730-1970-11	0.05823	0.00082	0.00078	0.00001	0.00707	0.00038	520.07	100.45	6.15	6.43	6.24	6.15	0.83	6.43	520.07	6.15
HW9-GAL-1730-1970-12	0.07414	0.00083	0.17388	0.00157	1.76162	0.02172	1045.4	22.39	1033.5	8.64	1032.95	8.64	0.92	1.2	1045.40	22.39
HW9-GAL-1730-1970-13	0.11288	0.00132	0.3359	0.0031	5.21695	0.09139	1846.4	21.07	1866.9	14.96	1869.60	14.96	1.00	1.2	1846.40	21.07
HW9-GAL-1730-1970-14	0.11338	0.00133	0.33824	0.00312	5.24405	0.09155	1854.3	21.02	1878.2	15.05	1881.36	15.05	1.00	1.4	1854.30	21.02
HW9-GAL-1730-1970-15	0.11305	0.00129	0.33645	0.00311	5.39105	0.09105	1849.1	20.49	1869.6	14.98	1872.26	14.98	1.00	1.2	1849.10	20.49
HW9-GAL-1730-1970-18	0.11394	0.0013	0.32687	0.00303	5.4122	0.09063	1863.2	20.47	1822.2	14.58	1818.16	14.58	0.99	2.5	1863.20	20.47
HW9-GAL-1730-1970-19	0.11422	0.00132	0.32992	0.00309	5.08254	0.08409	1867.6	20.65	1858	14.71	1834.21	14.71	1.00	1.8	1867.60	20.65
HW9-GAL-1730-1970-21	0.11172	0.00135	0.32475	0.00295	4.92139	0.08963	1827.6	14.35	1811.06	14.35	1811.06	14.35	0.99	1.6	1811.06	20.57
HW9-GAL-1730-1970-22	0.1148	0.00144	0.32549	0.00308	5.16537	0.10429	1876.8	22.37	1816.5	15	1808.91	15.00	0.99	3.8	1876.80	22.37
HW9-GAL-1730-1970-24	0.07381	0.00123	0.16914	0.00166	1.26708	0.02744	1036.4	33.37	1007.4	9.15	1006.17	9.15	0.92	3.0	1036.40	33.37
HW9-GAL-1730-1970-25	0.11227	0.00148	0.32304	0.00308	5.02034	0.11241	1836.4	23.65	1804.6	14.98	1800.64	14.98	0.99	2.0	1836.40	23.65
HW9-GAL-1730-1970-26	0.11474	0.00123	0.31587	0.00288	5.14166	0.09718	1875.8	19.92	1769.9	14.09	1756.73	14.09	0.99	6.8	1875.80	19.92
HW9-GAL-1730-1970-27	0.11453	0.0012	0.33851	0.00306	5.2975	0.06367	1872.5	18.84	1879.5	14.72	1880.43	14.72	1.00	0.4	1872.50	18.84
HW9-GAL-1730-1970-28	0.11462	0.00185	0.38326	0.00312	5.15715	0.10709	1850.2	20.06	1864.3	15.06	1866.13	15.06	1.00	0.9	1850.20	20.06
HW9-GAL-1730-1970-29	0.11137	0.00125	0.33104	0.00301	5.1483	0.07584	1843.8	14.58	1843.4	14.58	1842.50	14.58	1.00	0.8	1842.50	14.58
HW9-GAL-1730-1970-30	0.06616	0.00851	0.00063	0.00002	0.00135	0.00073	811.5	248.32	4.1	0.12	3.96	0.12	0.83	20411.8	3.96	0.12
HW9-GAL-1730-1970-32	0.11693	0.00133	0.35144	0.00325	5.80858	0.09053	1909.8	20.33	1941.5	15.48	1945.98	15.48	1.00	1.9	1909.80	20.33
HW9-GAL-1730-1970-33	0.11391	0.00123	0.34122	0.00305	5.30188	0.06968	1862.7	19.31	1892.5	14.66	1896.54	14.66	1.00	1.8	1862.70	19.31
HW9-GAL-1730-1970-34	0.18655	0.00261	0.53945	0.00556	13.73952	0.49395	2712	22.86	2764.4	23.33	2786.28	23.33	1.08	2.7	2712.00	22.86
HW9-GAL-1730-1970-35	0.06046	0.00174	0.08948	0.00103	0.7365	0.02648	618.9	60.82	525.5	6.07	551.24	6.07	0.88	12.5	551.24	6.07
HW9-GAL-1730-1970-36	0.05128	0.00893	0.09353	0.00097	0.76997	0.07457	1824.9	62.04	1020.4	8.65	1025.37	8.65	0.92	1.7	1043.00	8.65
HW9-GAL-1730-1970-37	0.11525	0.00125	0.33613	0.00307	5.36996	0.09481	1868.1	19.44	1868	14.81	1865.94	14.81	1.00	1.0	1865.94	14.81
HW9-GAL-1730-1970-38	0.05548	0.00052	0.00113	0.00003	0.00882	0.00078	433.3	196.61	7.3	0.16	7.19	0.16	0.83	5895.2	7.19	0.16
HW9-GAL-1730-1970-39	0.11393	0.00125	0.33991	0.00306	5.30188	0.09053	1863.1	19.77	1886.3	14.73	1889.33	14.73	1.00	1.4	1863.10	19.70
HW9-GAL-1730-1970-41	0.11418	0.00173	0.34006	0.00328	5.37851	0.1591	1867	27.13	1887	15.77	1889.63	15.77	1.00	0.2	1867.00	27.13
HW9-GAL-1730-1970-42	0.11611	0.00145	0.33902	0.00312	5.48516	0.11318	1897.2	22.29	1881.9	15.01	1879.91	15.01	1.00	0.9	1897.20	22.29
HW9-GAL-1730-1970-43	0.11388	0.00127	0.32705	0.00296	5.0352	0.07337	1862.2	19.94	1824.1	14.36	1819.26	14.36	0.99	2.4	1862.20	19.94
HW9-GAL-1730-1970-44	0.05128	0.00893	0.09353	0.00097	0.76997	0.07457	1824.9	62.04	1020.4	8.65	1025.37	8.65	0.92	1.7	1043.00	8.65
HW9-GAL-1730-1970-45	0.11536	0.00141	0.33587	0.00313	5.23996	0.10217	1885.4	24.84	1835.6	15.08	1864.88	15.08	1.00	1.1	1885.40	21.90
HW9-GAL-1730-1970-46	0.06818	0.00081	0.14607	0.00133	1.38466	0.01869	874.1	24.44	878.9	7.5	879.31	7.50	0.91	0.6	875.06	7.50
HW9-GAL-1730-1970-47	0.11315	0.0012	0.33668	0.00303	5.22539	0.06488	1850.7	19.03	1870.7	14.61	1873.06	14.61	1.00	1.2	1850.70	19.03
HW9-GAL-1730-1970-48	0.11422	0.00133	0.33217	0.00306	5.15492	0.08523	1866	20.63	1869.4	14.81	1846.68	14.81	1.00	1.0	1866.00	20.63
HW9-GAL-1730-1970-50	0.12577	0.00014	0.33475	0.00302	5.87813	0.08994	2039.7	19.61	1841.4	14.6	1836.68	14.60	1.00	11.1	2039.70	19.61
HW9-GAL-1730-1970-51	0.06128	0.00893	0.09353	0.00097	0.76997	0.07457	1824.9	62.04	1020.4	8.65	1025.37	8.65	0.92	1.7	1043.00	8.65
HW9-GAL-1730-1970-53	0.06021	0.00082	0.09329	0.00085	0.76564	0.01178	111	29.32	569.1	5.03	568.29	5.03	0.88	7.5	568.29	5.03
HW9-GAL-1730-1970-54	0.1136	0.00152	0.32935	0.00314	5.2766	0.1257	1857.2	24.02	1835.3	15.25	1832.36	15.25	1.00	1.4	1857.70	24.02
HW9-GAL-1730-1970-55	0.18932	0.00197	0.51032	0.00455	13.08032	0.16258	2736.3	17	2658	19.43	2628.85	19.43	1.07	4.1	2736.30	17.00
HW9-GAL-1730-1970-56	0.11192	0.00143	0.31736	0.00307	4.77431	0.09806	1830.8	22.91	1776.8	15.03	1770.38	15.03	0.99	3.4	1830.80	22.91

Table S9. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_2010-2270

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance		Preferred Age	
Galula-1_2010-2270	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
	Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁷ Pb/ ²³⁸ U ages for common Pb.												Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.			
Grain ID:																
HW9-GAL-2010-2270-1	0.07433	0.00083	0.18352	0.00167	1.90381	0.02339	1050.5	22.22	1086.2	9.08	1087.81	9.08	0.93	3.4	1050.50	22.22
HW9-GAL-2010-2270-2	0.11556	0.00123	0.3475	0.00312	5.67239	0.07349	1888.6	19.07	1922.7	14.95	1927.38	14.95	1.00	2.0	1888.60	19.07
HW9-GAL-2010-2270-3	0.11467	0.00121	0.35391	0.00322	5.71748	0.07106	1874.7	18.89	1953.2	15.32	1964.43	15.32	1.01	4.6	1874.70	18.89
HW9-GAL-2010-2270-4	0.11381	0.00122	0.33025	0.00292	5.24108	0.06614	1861.1	19.18	1839.6	14.16	1836.84	14.16	1.00	1.3	1861.10	19.18
HW9-GAL-2010-2270-5	0.11495	0.00148	0.36039	0.00342	5.85562	0.13077	1879.1	23.01	1984	16.2	1999.42	16.20	1.01	6.0	1879.10	23.01
HW9-GAL-2010-2270-6	0.11831	0.00141	0.33312	0.00309	5.75535	0.1081	1930.9	21.21	1853.5	14.95	1843.24	14.95	1.00	4.8	1930.90	21.21
HW9-GAL-2010-2270-7	0.11505	0.00132	0.34797	0.00319	5.72553	0.09564	1880.7	20.47	1924.9	15.27	1931.05	15.27	1.00	2.6	1880.70	20.47
HW9-GAL-2010-2270-8	0.07474	0.00078	0.17716	0.00158	1.81482	0.01905	1061.5	20.96	1051.4	8.63	1051.00	8.63	0.92	1.0	1061.50	20.96
HW9-GAL-2010-2270-9	0.11582	0.00135	0.33824	0.00313	5.48728	0.09492	1892.6	20.78	1878.2	15.07	1876.26	15.07	1.00	0.9	1892.60	20.78
HW9-GAL-2010-2270-10	0.12452	0.00135	0.35047	0.00318	6.12767	0.08555	2022	19.08	1936.8	15.17	1924.29	15.17	1.00	5.1	2022.00	19.08
HW9-GAL-2010-2270-11	0.06027	0.00134	0.08452	0.00087	0.7164	0.01954	613.3	47.36	523	5.18	521.52	5.18	0.88	17.6	521.52	5.18
HW9-GAL-2010-2270-12	0.05207	0.0007	0.04041	0.00038	0.29074	0.00403	288.5	30.41	255.4	2.36	255.14	2.36	0.85	13.1	255.14	2.36
HW9-GAL-2010-2270-13	0.11367	0.00117	0.33023	0.00298	5.165	0.05651	1858.8	18.52	1839.5	14.43	1837.02	14.43	1.00	1.2	1858.80	18.52
HW9-GAL-2010-2270-14	0.12212	0.00128	0.34603	0.00312	5.92726	0.0711	1987.4	18.51	1915.6	14.96	1905.35	14.96	1.00	4.3	1987.40	18.51
HW9-GAL-2010-2270-15	0.11569	0.00129	0.37858	0.00344	6.01768	0.09436	1890.7	19.96	2069.7	16.09	2098.20	16.09	1.02	9.9	1890.70	19.96
HW9-GAL-2010-2270-16	0.0602	0.00104	0.08582	0.00083	0.70665	0.01437	610.9	36.81	530.7	4.91	529.39	4.91	0.88	15.4	529.39	4.91
HW9-GAL-2010-2270-17	0.07783	0.001	0.18879	0.00173	2.07423	0.03438	1142.6	25.24	1114.8	9.4	1113.46	9.40	0.93	2.6	1142.60	25.24
HW9-GAL-2010-2270-18	0.11459	0.00142	0.31714	0.00285	5.07195	0.09267	1873.4	22.15	1775.7	13.94	1763.93	13.94	0.99	6.2	1873.40	22.15
HW9-GAL-2010-2270-19	0.11676	0.00122	0.32648	0.00294	5.26899	0.06198	1907.2	18.68	1821.3	14.27	1810.34	14.27	0.99	5.4	1907.20	18.68
HW9-GAL-2010-2270-20	0.0769	0.00079	0.18999	0.0017	1.83583	0.01851	1118.5	20.42	1121.3	9.24	1121.45	9.24	0.93	0.3	1118.50	20.42
HW9-GAL-2010-2270-21	0.11462	0.00134	0.31444	0.00288	4.97602	0.08522	1874	20.97	1749.2	14.11	1749.20	14.11	0.99	7.1	1874.00	20.97
HW9-GAL-2010-2270-22	0.12015	0.00126	0.34781	0.00318	5.72087	0.06782	1958.4	18.53	1924.1	15.2	1919.24	15.20	1.00	2.0	1958.40	18.53
HW9-GAL-2010-2270-23	0.08168	0.00165	0.19584	0.00208	2.14673	0.06807	1237.9	38.89	1152.9	11.19	1148.47	11.19	0.93	7.8	1237.90	38.89
HW9-GAL-2010-2270-24	0.11991	0.00129	0.35844	0.00324	6.00057	0.08146	1954.9	19.07	1974.8	15.39	1977.74	15.39	1.01	1.2	1954.90	19.07
HW9-GAL-2010-2270-25	0.07805	0.00095	0.19784	0.00181	2.14548	0.03238	1148.1	23.88	1163.7	9.76	1164.51	9.76	0.93	1.4	1148.10	23.88
HW9-GAL-2010-2270-26	0.11412	0.00121	0.34228	0.00311	5.4405	0.06833	1866	19.01	1897.6	14.95	1901.89	14.95	1.00	1.9	1866.00	19.01
HW9-GAL-2010-2270-27	0.11406	0.00141	0.33841	0.00319	5.48495	0.11024	1865	22.1	1879	15.37	1880.37	15.37	1.00	0.8	1865.00	22.10
HW9-GAL-2010-2270-28	0.11445	0.00128	0.33453	0.003	5.40483	0.08332	1871.3	20.11	1860.3	14.51	1858.87	14.51	1.00	0.7	1871.30	20.11
HW9-GAL-2010-2270-29	0.0608	0.00115	0.0921	0.00091	0.79683	0.01835	632.3	40.1	567.9	5.37	566.75	5.37	0.88	11.6	566.75	5.37
HW9-GAL-2010-2270-30	0.11347	0.0012	0.33062	0.00297	5.26701	0.06473	1855.7	18.97	1841.4	14.4	1839.56	14.40	1.00	0.9	1855.70	18.97
HW9-GAL-2010-2270-32	0.11242	0.00136	0.32517	0.00302	5.03414	0.0938	1838.8	21.73	1814.9	14.7	1811.96	14.70	0.99	1.5	1838.80	21.73
HW9-GAL-2010-2270-33	0.11639	0.0012	0.3392	0.00304	5.51104	0.05945	1901.6	18.36	1882.8	14.64	1880.30	14.64	1.00	1.1	1901.60	18.36
HW9-GAL-2010-2270-34	0.11597	0.00134	0.32715	0.00297	5.2815	0.08911	1894.9	20.7	1824.5	14.41	1815.57	14.41	0.99	4.4	1894.90	20.70
HW9-GAL-2010-2270-35	0.07733	0.01389	0.00081	0.00003	0.00879	0.00155	1129.6	321.49	5.2	0.2	5.01	0.20	0.83	22437.9	5.01	0.20
HW9-GAL-2010-2270-36	0.11352	0.00139	0.31435	0.00284	4.98927	0.09454	1856.6	22.01	1762.1	13.92	1750.86	13.92	0.99	6.0	1856.60	22.01
HW9-GAL-2010-2270-37	0.05887	0.00077	0.09283	0.00085	0.76017	0.011	562.3	28.34	572.3	5.03	572.44	5.03	0.88	1.8	572.44	5.03
HW9-GAL-2010-2270-40	0.04617	0.00449	0.00056	0.00001	0.00356	0.00034	6.6	218.72	3.6	0.06	3.61	0.06	0.83	82.9	3.61	0.06
HW9-GAL-2010-2270-41	0.0747	0.00088	0.16967	0.00154	1.7889	0.02446	1060.3	23.44	1010.3	8.49	1008.19	8.49	0.92	5.2	1060.30	23.44
HW9-GAL-2010-2270-42	0.07425	0.00095	0.16819	0.00155	1.74762	0.02803	1048.1	25.62	1002.2	8.6	1000.22	8.60	0.92	4.8	1048.10	25.62
HW9-GAL-2010-2270-43	0.07475	0.0009	0.1692	0.00156	1.78484	0.02574	1061.8	24.05	1007.7	8.57	1005.44	8.57	0.92	5.6	1061.80	24.05
HW9-GAL-2010-2270-44	0.05711	0.00158	0.08447	0.0009	0.69942	0.02429	495.4	60.57	522.8	5.37	523.19	5.37	0.88	5.3	523.19	5.37
HW9-GAL-2010-2270-45	0.11484	0.00119	0.32305	0.00292	5.07025	0.05567	1877.3	18.51	1804.6	14.22	1795.56	14.22	0.99	4.6	1877.30	18.51
HW9-GAL-2010-2270-46	0.11355	0.00134	0.31525	0.00291	5.0428	0.0881	1857.1	21.11	1766.5	14.27	1755.70	14.27	0.99	5.8	1857.10	21.11
HW9-GAL-2010-2270-47	0.11418	0.0012	0.30972	0.0028	4.88719	0.05819	1866.9	18.86	1739.3	13.8	1724.43	13.80	0.99	8.3	1866.90	18.86
HW9-GAL-2010-2270-48	0.06824	0.00138	0.12248	0.00126	1.21025	0.03316	875.8	41.43	744.8	7.22	741.23	7.22	0.90	18.2	741.23	7.22
HW9-GAL-2010-2270-49	0.14087	0.0138	0.00104	0.00003	0.02089	0.00195	2237.9	160.27	6.7	0.22	5.89	0.22	0.83	37881.2	5.89	0.22
HW9-GAL-2010-2270-50	0.1175	0.00148	0.331	0.00321	5.4052	0.11046	1918.5	22.36	1843.2	15.56	1833.38	15.56	1.00	4.6	1918.50	22.36
HW9-GAL-2010-2270-51	0.11429	0.0014	0.31058	0.003	4.99118	0.0952	1868.8	21.93	1743.5	14.75	1728.89	14.75	0.99	8.1	1868.80	21.93
HW9-GAL-2010-2270-52	0.1369	0.00152	0.39335	0.00362	7.39143	0.11448	2188.4	19.23	2138.4	16.77	2128.97	16.77	1.02	2.8	2188.40	19.23
HW9-GAL-2010-2270-53	0.0606	0.001	0.08432	0.00079	0.71737	0.01379	624.9	35.07	521.9	4.71	520.11	4.71	0.88	20.1	520.11	4.71
HW9-GAL-2010-2270-54	0.07892	0.00665	0.00068	0.00002	0.00756	0.00062	1170.2	158.39	4.4	0.1	4.20	0.10	0.83	27769.2	4.20	0.10
HW9-GAL-2010-2270-55	0.07391	0.00091	0.16674	0.00153	1.71166	0.0254	1038.9	24.62	994.1	8.45	992.29	8.45	0.92	4.7	992.29	8.45
HW9-GAL-2010-2270-56	0.07268	0.00107	0.1579	0.0017	1.67193	0.03318	1005.1	29.58	945.1	9.47	942.82	9.47	0.92	6.6	942.82	9.47
HW9-GAL-2010-2270-57	0.11584	0.00126	0.32724	0.00299	5.36778	0.07472	1893	19.43	1825	14.53	1816.33	14.53	0.99	4.2	1893.00	19.43
HW9-GAL-2010-2270-58	0.															

Table S10. Summary Analytical Data for U-Pb Detrital Zircon Analyses for Sample Galula-1_2310-2670

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
Galula-1_2310-2670	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰⁷ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁶ Pb/ ²³⁸ U Age corrected	Err 1σ	Common ²⁰⁷ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
Utilises the Age7 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰⁷ Pb/ ²³⁵ U ages for common Pb.											Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.					
Grain ID:																
HW9-GAL-2310-2670-1	0.11087	0.00125	0.32009	0.00306	4.98243	0.07722	1813.6	20.41	1790.2	14.94	1787.34	14.94	0.99	1.5	1813.60	20.41
HW9-GAL-2310-2670-2	0.11367	0.00119	0.33963	0.00306	5.31534	0.06371	1858.8	18.84	1884.9	14.75	1888.35	14.75	1.00	1.6	1858.80	18.84
HW9-GAL-2310-2670-3	0.20032	0.00213	0.52038	0.00488	14.46983	0.22887	2828.8	17.24	2700.8	20.68	2649.51	20.68	1.07	6.8	2828.80	17.24
HW9-GAL-2310-2670-4	0.11789	0.00165	0.33722	0.00333	5.4214	0.139	1924.5	24.89	1873.3	16.04	1866.39	16.04	1.00	3.1	1924.50	24.89
HW9-GAL-2310-2670-5	0.11749	0.0013	0.34158	0.00312	5.61756	0.08283	1918.5	19.64	1894.3	14.97	1890.96	14.97	1.00	1.5	1918.50	19.64
HW9-GAL-2310-2670-6	0.05968	0.0031	0.00103	0.00001	0.00849	0.00043	592.7	108.02	6.6	0.09	6.52	0.09	0.83	8987.5	6.52	0.09
HW9-GAL-2310-2670-7	0.05955	0.00079	0.09273	0.00085	0.77041	0.01136	587.4	28.58	571.6	5.03	571.37	5.03	0.88	2.8	571.37	5.03
HW9-GAL-2310-2670-8	0.11456	0.0014	0.34409	0.00321	5.39887	0.10579	1873	21.87	1906.3	15.39	1910.86	15.39	1.00	2.0	1873.00	21.87
HW9-GAL-2310-2670-9	0.1139	0.00178	0.34186	0.00336	5.4276	0.16936	1862.6	27.95	1895.6	16.15	1900.06	16.15	1.00	2.0	1862.60	27.95
HW9-GAL-2310-2670-10	0.11319	0.00126	0.33297	0.00305	5.21573	0.07833	1851.3	20.01	1852.8	14.73	1852.96	14.73	1.00	0.1	1851.30	20.01
HW9-GAL-2310-2670-11	0.11355	0.00122	0.33752	0.00306	5.35889	0.07123	1857	19.3	1874.7	14.74	1877.07	14.74	1.00	1.1	1857.00	19.30
HW9-GAL-2310-2670-12	0.11485	0.00141	0.32821	0.00305	5.35716	0.10687	1877.5	22.03	1829.7	14.81	1823.61	14.81	0.99	3.0	1877.50	22.03
HW9-GAL-2310-2670-13	0.12098	0.00134	0.37326	0.00334	6.31095	0.09375	1970.8	19.54	2044.7	15.67	2056.56	15.67	1.01	4.2	1970.80	19.54
HW9-GAL-2310-2670-14	0.11463	0.00121	0.33702	0.00305	5.44879	0.06631	1874	18.85	1872.3	14.68	1872.08	14.68	1.00	0.1	1874.00	18.85
HW9-GAL-2310-2670-15	0.11428	0.00143	0.33716	0.00323	5.22293	0.10935	1868.6	22.48	1873	15.55	1873.58	15.55	1.00	0.3	1868.60	22.48
HW9-GAL-2310-2670-16	0.06757	0.00478	0.0011	0.00002	0.01039	0.00071	867.6	139.42	7.1	0.13	6.89	0.13	0.83	12491.5	6.89	0.13
HW9-GAL-2310-2670-17	0.11403	0.00122	0.33092	0.003	5.18533	0.06663	1864.6	19.15	1842.8	14.53	1840.05	14.53	1.00	1.3	1864.60	19.15
HW9-GAL-2310-2670-18	0.11163	0.00128	0.28694	0.00261	4.39122	0.06862	1826.1	20.67	1626.2	13.06	1605.51	13.06	0.98	13.7	1826.10	20.67
HW9-GAL-2310-2670-21	0.12432	0.00132	0.36571	0.00334	6.34273	0.0823	2019.1	18.72	2009.2	15.78	2007.62	15.78	1.01	0.6	2019.10	18.72
HW9-GAL-2310-2670-22	0.05984	0.00073	0.09385	0.00086	0.78293	0.0103	597.7	26.31	578.3	5.06	577.90	5.06	0.88	3.4	577.90	5.06
HW9-GAL-2310-2670-23	0.07366	0.00083	0.17599	0.0016	1.80434	0.02255	1032.1	22.21	1045	8.76	1045.59	8.76	0.92	1.3	1032.10	22.21
HW9-GAL-2310-2670-24	0.10412	0.00962	0.00133	0.00004	0.01895	0.00168	1698.7	161.22	8.5	0.25	7.94	0.25	0.83	21305.3	7.94	0.25
HW9-GAL-2310-2670-26	0.11889	0.00546	0.00119	0.00002	0.01953	0.00086	1939.7	79.84	7.6	0.13	6.96	0.13	0.83	27783.4	6.96	0.13
HW9-GAL-2310-2670-27	0.11397	0.00121	0.35677	0.00222	5.61855	0.07174	1863.6	19.06	1966.9	15.28	1981.68	15.28	1.01	6.0	1863.60	19.06
HW9-GAL-2310-2670-28	0.11033	0.00158	0.29664	0.00293	4.46582	0.11204	1804.8	25.86	1674.6	14.58	1660.61	14.58	0.98	8.7	1804.80	25.86
HW9-GAL-2310-2670-29	0.12081	0.00129	0.35086	0.00319	5.81997	0.07657	1968.3	18.9	1938.7	15.21	1934.42	15.21	1.00	1.8	1968.30	18.90
HW9-GAL-2310-2670-30	0.06487	0.00436	0.001	0.00002	0.00883	0.00058	770.1	135.34	6.5	0.12	6.29	0.12	0.83	12144.0	6.29	0.12
HW9-GAL-2310-2670-32	0.11361	0.00153	0.33067	0.00328	5.31145	0.12486	1857.9	24.12	1841.6	15.87	1839.54	15.87	1.00	1.0	1857.90	24.12
HW9-GAL-2310-2670-33	0.11704	0.00127	0.3456	0.00327	5.65845	0.07965	1911.5	19.41	1913.6	15.68	1913.84	15.68	1.00	0.1	1911.50	19.41
HW9-GAL-2310-2670-34	0.06188	0.00319	0.00098	0.00001	0.00844	0.00042	670.1	106.57	6.3	0.09	6.19	0.09	0.83	10729.1	6.19	0.09
HW9-GAL-2310-2670-35	0.11557	0.00135	0.34398	0.00318	5.59084	0.0979	1888.8	20.82	1905.8	15.23	1908.12	15.23	1.00	1.0	1888.80	20.82
HW9-GAL-2310-2670-36	0.14611	0.02028	0.00093	0.00004	0.01888	0.00246	2300.9	220.76	6	0.29	5.23	0.29	0.83	43902.6	5.23	0.29
HW9-GAL-2310-2670-37	0.11525	0.00143	0.29862	0.00287	4.80487	0.0929	1883.7	22.13	1684.5	14.23	1662.22	14.23	0.98	13.3	1883.70	22.13
HW9-GAL-2310-2670-38	0.07277	0.00081	0.15682	0.00143	1.57986	0.01896	1007.5	22.32	939.1	7.97	936.50	7.97	0.91	7.6	936.50	7.97
HW9-GAL-2310-2670-39	0.11427	0.00122	0.33089	0.003	5.32837	0.06904	1868.3	19.16	1842.7	14.51	1839.39	14.51	1.00	1.6	1868.30	19.16
HW9-GAL-2310-2670-40	0.05842	0.00619	0.00128	0.00003	0.01039	0.00108	545.6	216.11	8.2	0.21	8.12	0.21	0.83	6621.0	8.12	0.21
HW9-GAL-2310-2670-41	0.11581	0.00191	0.31249	0.00317	5.1102	0.16799	1892.5	29.32	1753	15.59	1736.31	15.59	0.99	9.0	1892.50	29.32
HW9-GAL-2310-2670-42	0.11516	0.00135	0.33828	0.00313	5.34183	0.09396	1882.5	20.97	1878.4	15.06	1877.86	15.06	1.00	0.2	1882.50	20.97
HW9-GAL-2310-2670-43	0.11466	0.00121	0.33955	0.00306	5.34503	0.06545	1874.5	18.89	1884.5	14.74	1885.84	14.74	1.00	0.6	1874.60	18.89
HW9-GAL-2310-2670-44	0.05849	0.00074	0.09118	0.00083	0.73844	0.0101	548	27.38	562.5	4.92	562.77	4.92	0.88	2.6	562.77	4.92
HW9-GAL-2310-2670-45	0.24892	0.0182	0.00113	0.00004	0.03874	0.0026	3177.9	111.28	7.3	0.24	5.40	0.24	0.83	58756.7	5.40	0.24
HW9-GAL-2310-2670-46	0.11377	0.0013	0.33575	0.00309	5.34183	0.08802	1860.4	20.55	1866.2	14.92	1866.94	14.92	1.00	0.4	1860.40	20.55
HW9-GAL-2310-2670-47	0.11605	0.00167	0.32943	0.00328	5.24977	0.13937	1896.2	25.67	1835.6	15.9	1827.81	15.9	1.00	3.7	1896.20	25.67
HW9-GAL-2310-2670-48	0.1151	0.00158	0.34271	0.0034	5.49437	0.13577	1881.4	24.5	1899.7	16.31	1902.17	16.31	1.00	1.1	1881.40	24.50
HW9-GAL-2310-2670-49	0.0727	0.00092	0.16978	0.00157	1.72035	0.02674	1005.6	25.54	1010.9	8.64	1011.12	8.64	0.92	0.5	1005.60	25.54
HW9-GAL-2310-2670-51	0.11442	0.00134	0.34259	0.00332	5.40556	0.09409	1870.7	20.97	1899.1	15.96	1902.96	15.96	1.00	1.7	1870.70	20.97
HW9-GAL-2310-2670-52	0.1143	0.00134	0.33855	0.00307	5.51136	0.09646	1868.8	20.93	1879.7	14.79	1881.13	14.79	1.00	0.7	1868.80	20.93
HW9-GAL-2310-2670-52	0.05985	0.0058	0.00095	0.00002	0.00788	0.00075	598.1	196.99	6.1	0.13	6.01	0.13	0.83	9844.5	6.01	0.13
HW9-GAL-2310-2670-53	0.11558	0.00143	0.33095	0.00307	5.29046	0.10663	1889	22.06	1843	14.89	1837.04	14.89	1.00	2.8	1889.00	22.06
HW9-GAL-2310-2670-54	0.11419	0.00122	0.33585	0.00301	5.29886	0.06709	1867.2	19.09	1866.7	14.51	1866.61	14.51	1.00	0.0	1867.20	19.09
HW9-GAL-2310-2670-56	0.06726	0.00166	0.1157	0.00122	1.14385	0.03898	846	50.56	705.8	7.06	702.19	7.06	0.89	20.5	702.19	7.06
HW9-GAL-2310-2670-57	0.11104	0.00127	0.34048	0.00305	5.39426	0.06187	1876.8	18.66	1889	14.68	1890.62	14.68	1.00	0.7	1876.80	18.66
HW9-GAL-2310-2670-58	0.18799	0.00194	0.49557	0.0045	13.09647	0.16921	2724.7	16.93	2594.7	19.42	2549.68	19.42	1.06	6.9	2724.70	16.93
HW9-GAL-2310-2670-59	0.11218	0.00133	0.31634	0.00292	4.77053	0.08355	1835	21.37	1771.8	14.31	1764.31	14.31	0.99	4.0	1835.00	21.37
HW9-GAL-2310-2670-60	0.06233	0.00119	0.09129	0.00088	0.79302	0.01853	685.4	40.18	563.1	5.17	560.87	5.17	0.88	22.2	560.87	5.17

Table S11. Summary Analytical Data for U–Pb Detrital Zircon Analyses for Sample Galula-1_2710-2930

Sample ID	Measured Isotope Ratios						Age Estimates						Common	Discordance	Preferred Age	
	²⁰³ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U	Err 1σ	²⁰³ Pb/ ²⁰⁶ Pb	Err 1σ	²⁰⁶ Pb/ ²³⁸ U	Err 1σ	²⁰⁷ Pb/ ²³⁵ U Age corrected	Err 1σ	Common ²⁰³ Pb/ ²⁰⁶ Pb Composition	Pb-Pb/U-Pb (%)	Preferred Age	Err 1σ
Utilizes the Age27 correction (Isoplot) and associated error algorithms of Isoplot to correct ²⁰³ Pb/ ²⁰⁶ Pb ages for common Pb.																
Modelled common Pb composition from Stacey and Kramers (1975) fitted to a linear model.																
Grain ID:																
Galula-1_2710-2930-1	0.11466	0.00202	0.34478	0.00375	5.45322	0.09302	1874.50	31.40	1909.6	17.96	1914.42	17.96	1.00	2.1	1874.50	31.40
Galula-1_2710-2930-2	0.13361	0.00261	0.3729	0.00412	6.87329	0.1317	2145.90	33.77	2043	19.35	2025.61	19.35	1.01	5.9	2145.90	33.77
Galula-1_2710-2930-3	0.10419	0.00865	0.00103	0.00003	0.01477	0.00117	1700.00	145.63	6.6	0.17	6.15	0.83	27561.6	6.15	0.17	
Galula-1_2710-2930-4	0.11327	0.00147	0.32928	0.00332	5.14291	0.06495	1852.50	23.22	1834.9	16.11	1832.65	16.11	1.00	1.1	1852.50	23.22
Galula-1_2710-2930-7	0.11454	0.00158	0.34585	0.0034	5.46337	0.07209	1872.60	24.61	1914.8	16.29	1920.54	16.29	1.00	2.5	1872.60	24.61
Galula-1_2710-2930-8	0.08606	0.00793	0.00115	0.00003	0.01369	0.00122	1330.50	168.37	7.4	0.19	7.03	0.19	0.83	18946.8	7.03	0.19
Galula-1_2710-2930-9	0.07383	0.00108	0.17658	0.00181	1.79781	0.02578	1036.80	29.36	1048.3	9.92	1048.76	9.92	1.1	1036.80	29.36	
Galula-1_2710-2930-10	0.12024	0.00289	0.32639	0.00388	5.41842	0.12498	1962.10	42.27	1820.8	18.87	1802.50	18.87	0.99	8.9	1962.10	42.27
Galula-1_2710-2930-11	0.11528	0.00167	0.32286	0.00329	5.13303	0.07166	1884.30	25.84	1803.7	16.03	1793.64	16.03	0.99	5.1	1884.30	25.84
Galula-1_2710-2930-13	0.12552	0.00267	0.37939	0.00385	6.56038	0.13046	2036.10	37.14	2073.4	17.97	2079.69	17.97	1.02	2.1	2036.10	37.14
Galula-1_2710-2930-16	0.12085	0.0086	0.00104	0.00003	0.01732	0.00117	1968.80	121.75	6.7	0.16	6.06	0.16	0.83	32371.9	6.06	0.16
Galula-1_2710-2930-17	0.11767	0.00211	0.3622	0.00396	5.8801	0.10282	1921.20	31.80	1992.6	18.75	2003.31	18.75	1.01	4.1	1921.20	31.80
Galula-1_2710-2930-18	0.07501	0.00123	0.18158	0.00187	1.87871	0.02979	1068.90	32.72	1075.6	10.23	1075.91	10.23	0.93	0.7	1068.90	32.72
Galula-1_2710-2930-19	0.11516	0.00258	0.33235	0.00395	5.27912	0.11361	1882.40	39.78	1849.8	19.1	1845.52	19.10	1.00	2.0	1882.40	39.78
Galula-1_2710-2930-20	0.12161	0.00166	0.36116	0.00351	6.05691	0.08717	1960.60	24.17	1987.7	16.63	1988.84	16.63	1.01	0.4	1980.00	24.17
Galula-1_2710-2930-21	0.11496	0.00192	0.32067	0.00329	5.08424	0.08855	1879.20	29.81	1793	16.07	1782.38	16.07	0.99	5.4	1879.20	29.81
Galula-1_2710-2930-22	0.11465	0.00166	0.32852	0.00318	5.19365	0.07046	1874.50	25.96	1831.2	15.45	1825.70	15.45	0.99	2.7	1874.50	25.96
Galula-1_2710-2930-23	0.1142	0.0016	0.32217	0.00307	5.07306	0.06596	1867.30	25.06	1800.3	14.96	1792.05	14.96	0.99	4.2	1867.30	25.06
Galula-1_2710-2930-24	0.13751	0.00386	0.35436	0.00396	6.71599	0.17398	2196.00	48.00	1955.4	18.87	1917.11	18.87	1.01	14.5	2196.00	48.00
Galula-1_2710-2930-26	0.11309	0.00169	0.32006	0.00307	4.99065	0.06898	1849.70	26.76	1790	14.99	1782.77	14.99	0.99	3.8	1849.70	26.76
Galula-1_2710-2930-27	0.12705	0.00187	0.37798	0.00361	6.62055	0.09003	2057.50	25.77	2066.8	16.9	2068.60	16.90	1.02	0.5	2057.50	25.77
Galula-1_2710-2930-28	0.11878	0.00189	0.34574	0.00339	5.66262	0.08354	1937.90	28.13	1914.2	16.25	1910.89	16.25	1.00	1.4	1937.90	28.13
Galula-1_2710-2930-29	0.04864	0.00296	0.00104	0.00002	0.007	0.00041	130.50	137.26	6.7	0.11	6.68	0.11	0.83	1853.7	6.68	0.11
Galula-1_2710-2930-30	0.11589	0.00169	0.32749	0.00317	5.23248	0.07074	1893.80	25.97	1826.2	15.39	1817.58	15.39	0.99	4.2	1893.80	25.97
Galula-1_2710-2930-31	0.11388	0.00197	0.31239	0.00307	4.90354	0.07799	1862.20	30.98	1752.4	15.07	1739.51	15.07	0.99	7.1	1862.20	30.98
Galula-1_2710-2930-32	0.11656	0.00198	0.3222	0.00315	5.17625	0.08078	1904.10	30.27	1800.5	15.34	1787.50	15.34	0.99	6.5	1904.10	30.27
Galula-1_2710-2930-33	0.12083	0.00183	0.34827	0.00323	5.8008	0.07917	1968.60	26.74	1926.3	15.47	1920.26	15.47	1.00	2.5	1968.60	26.74
Galula-1_2710-2930-35	0.12138	0.00256	0.33316	0.0035	5.57379	0.10832	1976.60	37.04	1853.7	16.94	1837.14	16.94	1.00	7.6	1976.60	37.04
Galula-1_2710-2930-36	0.12316	0.00276	0.31774	0.00342	5.39389	0.11137	2002.50	39.23	1778.7	16.74	1750.32	16.74	0.99	14.4	2002.50	39.23
Galula-1_2710-2930-37	0.10997	0.00597	0.27662	0.00419	4.1921	0.20268	1798.90	95.72	1574.3	21.14	1552.37	21.14	0.97	15.9	1798.90	95.72
Galula-1_2710-2930-39	0.1348	0.00303	0.35643	0.0037	6.62198	0.13511	2161.40	38.75	1965.2	17.58	1934.12	17.58	1.01	11.8	2161.40	38.75
Galula-1_2710-2930-40	0.15353	0.00272	0.40381	0.00395	8.54226	0.13665	2385.60	29.83	2186.6	18.16	2144.95	18.16	1.03	11.2	2385.60	29.83
Galula-1_2710-2930-41	0.1116	0.00145	0.28543	0.00266	4.4566	0.05361	1825.60	23.44	1668.6	13.23	1651.68	13.23	0.99	10.5	1825.60	23.44
Galula-1_2710-2930-42	0.12013	0.00132	0.3223	0.00284	5.37883	0.05239	1958.20	19.54	1800.9	13.87	1780.92	13.87	0.99	10.0	1958.20	19.54
Galula-1_2710-2930-43	0.11938	0.00178	0.32257	0.00329	5.30863	0.07585	1946.90	26.44	1802.3	16.05	1783.88	16.05	0.99	9.1	1946.90	26.44
Galula-1_2710-2930-44	0.11316	0.0014	0.30296	0.0028	4.72642	0.0538	1850.80	22.24	1706	13.86	1689.67	13.86	0.98	9.5	1850.80	22.24
Galula-1_2710-2930-46	0.0775	0.00997	0.00097	0.00003	0.01034	0.00129	1134.10	236.76	6.2	0.21	6.00	0.21	0.83	18800.4	6.00	0.21
Galula-1_2710-2930-47	0.0817	0.00875	0.00107	0.00003	0.01204	0.00124	1238.40	196.57	6.9	0.21	6.58	0.21	0.83	18715.2	6.58	0.21
Galula-1_2710-2930-48	0.1413	0.00154	0.31401	0.00304	4.94942	0.06276	1860.30	24.17	1760.4	14.9	1747.43	14.90	0.99	7.0	1860.30	24.17
Galula-1_2710-2930-49	0.12128	0.00139	0.33068	0.0029	5.52901	0.05612	1975.10	20.21	1841.7	14.07	1823.93	14.07	1.00	8.3	1975.10	20.21
Galula-1_2710-2930-51	0.12056	0.00144	0.3282	0.00293	5.4554	0.0588	1964.50	21.17	1829.7	14.24	1811.97	14.24	0.99	8.4	1964.50	21.17
Galula-1_2710-2930-52	0.11389	0.00126	0.33027	0.00292	5.18561	0.05117	1862.40	19.82	1839.7	14.16	1836.79	14.16	1.00	1.4	1862.40	19.82
Galula-1_2710-2930-55	0.11672	0.00156	0.31551	0.00281	5.07705	0.06115	1906.60	23.85	1767.8	13.75	1750.91	13.75	0.99	8.9	1906.60	23.85
Galula-1_2710-2930-56	0.11418	0.00182	0.30708	0.00308	4.8338	0.07165	1857.00	28.43	1726.3	14.69	1710.10	14.69	0.99	9.2	1867.00	28.43
Galula-1_2710-2930-57	0.10423	0.00325	0.38111	0.00538	5.47416	0.16581	1700.70	56.36	2081.5	25.11	2139.29	25.11	1.02	20.5	1700.70	56.36
Galula-1_2710-2930-58	0.12448	0.00145	0.33617	0.00307	5.76901	0.0614	2021.30	20.59	1868.2	14.8	1847.01	14.80	1.00	9.4	2021.30	20.59
Galula-1_2710-2930-59	0.07563	0.00149	0.18103	0.00183	1.88765	0.03534	1085.30	38.98	1072.6	10	1072.02	10.00	0.93	1.2	1085.30	38.98
Galula-1_2710-2930-60	0.12124	0.00154	0.35151	0.00323	5.87554	0.06796	1974.60	22.41	1941.8	15.42	1937.03	15.42	1.00	1.9	1974.60	22.41
Galula-1_2780-1	0.11589	0.00127	0.34516	0.00321	5.51424	0.05604	1893.7	19.65	1911.5	15.4	1913.88	15.40	1.01	1.1	1893.70	19.65
Galula-1_2780-2	0.12486	0.00163	0.34827	0.00321	5.85434	0.06143	1926.60	18.45	2042.7	15.99	2056.95	15.99	1.01	1.5	1926.60	18.45
Galula-1_2780-3	0.10515	0.00809	0.17937	0.00165	1.83331	0.02036	1045.4	24.07	1063.6	9.03	1064.33	9.03	1.03	1.8	1045.40	24.07
Galula-1_2780-4	0.18917	0.00198	0.53413	0.00488	13.92832	0.13255	2735	17.15	2758.8	20.51	2768.80	20.51	1.08	1.2	2735.00	17.15
Galula-1_2780-5	0.05124	0.004	0.00114	0.00002												

Table S12. Summary Analytical Data for U-Pb Detrital Zircon Analyses for Sample Galula-1_2970-3150

Sample ID	Measured Isotope Ratios						Age Estimates						Discordance	Preferred Age		
	$^{207}\text{Pb}/^{235}\text{U}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{207}\text{Pb}/^{235}\text{U}$	Err 1σ	$^{206}\text{Pb}/^{238}\text{U}$	Err 1σ	$^{206}\text{Pb}/^{235}\text{U}$ Age corrected	Err 1σ	$^{207}\text{Pb}/^{235}\text{U}$ Composition	Pb-Pb-U-Pb (%)		Preferred Age	Err 1σ	
Utilizes the Age2f correction (Spearin) and associated error algorithms if isotopic data correct $^{207}\text{Pb}/^{235}\text{U}$ ages for common Pb.																
Modelled common Pb from concordance from Rb-Sr and K-Ar ages for linear model.																
Gran ID:																
Galula-1_2970-3150-1	0.11357	0.00292	0.3273	0.0036	5.12325	0.1288	1857.3	45.74	1825.3	17.48	1821.25	17.48	0.99	2.0	1857.30	45.74
Galula-1_2970-3150-2	0.11906	0.0067	0.2802	0.0047	4.59916	0.2545	1942.3	97.34	1592.5	24.02	1555.93	24.02	0.97	24.8	1942.30	97.34
Galula-1_2970-3150-3	0.11342	0.00295	0.34062	0.0038	5.32511	0.13509	1855	46.31	1889.7	18.29	1894.29	18.29	1.00	2.1	1855.00	46.31
Galula-1_2970-3150-4	0.11968	0.00516	0.32701	0.0047	4.39545	0.22635	1951.4	75.05	1823.9	23.17	1807.31	23.17	0.99	8.0	1951.40	75.05
Galula-1_2970-3150-5	0.11028	0.00287	0.32345	0.00357	4.93701	0.12496	1805.6	46.55	1811.7	17.30	1812.40	17.30	0.99	0.4	1805.60	46.55
Galula-1_2970-3150-6	0.12317	0.00809	0.33205	0.00617	5.62694	0.36536	2002.6	112.24	1848.3	29.86	1827.46	29.86	1.00	9.6	2002.60	112.24
Galula-1_2970-3150-7	0.11619	0.00329	0.33633	0.00392	5.38751	0.14858	1898.5	50.1	1869	18.91	1865.08	18.91	1.00	1.8	1898.50	50.10
Galula-1_2970-3150-8	0.11654	0.0253	0.00124	0.00008	0.01593	0.00411	1501.7	345.96	8	0.55	1.727	0.55	0.83	26076.3	7.27	0.55
Galula-1_2970-3150-9	0.11454	0.00302	0.35514	0.00396	5.60683	0.14314	1872.6	46.75	1859.1	18.85	1871.47	18.85	1.01	5.0	1872.60	46.75
Galula-1_2970-3150-10	0.094	0.00402	0.27333	0.0034	3.07552	0.12849	1508.1	78.74	1372.8	17.71	1362.96	17.71	0.95	0.6	1508.10	78.74
Galula-1_2970-3150-11	0.11579	0.00345	0.34917	0.00409	5.57457	0.16066	1892.2	52.67	1890.6	19.55	1936.03	19.55	1.00	2.3	1892.20	52.67
Galula-1_2970-3150-12	0.11433	0.00675	0.28027	0.00682	4.42115	0.25372	1669.3	102.87	1592.7	24.28	1564.53	24.28	0.97	19.5	1669.30	102.87
Galula-1_2970-3150-13	0.11528	0.00429	0.35994	0.00466	5.72074	0.20594	1884.2	65.52	1881.9	22.11	1996.22	22.11	1.01	5.6	1884.20	65.52
Galula-1_2970-3150-14	0.1111	0.00377	0.34347	0.00428	5.26083	0.17241	1817.5	60.31	1903.4	20.53	1914.81	20.53	1.00	5.1	1817.50	60.31
Galula-1_2970-3150-15	0.06435	0.00289	0.12942	0.00189	1.14817	0.00003	753.1	92.15	784.6	10.78	785.43	10.78	0.90	4.1	785.43	10.78
Galula-1_2970-3150-16	0.11244	0.00451	0.35414	0.00479	5.45082	0.21238	1839.2	70.56	1954.3	22.82	1970.57	22.82	0.91	6.7	1839.20	70.56
Galula-1_2970-3150-17	0.11562	0.00351	0.35767	0.00418	5.70201	0.16631	1889.5	53.64	1971.1	19.86	1982.99	19.86	1.01	4.7	1889.50	53.64
Galula-1_2970-3150-18	0.11604	0.00317	0.33187	0.00363	5.30866	0.13861	1896.1	48.32	1847.5	17.59	1841.10	17.59	1.00	3.0	1896.10	48.32
Galula-1_2970-3150-19	0.11409	0.00366	0.34604	0.00419	5.44359	0.16801	1855.6	56.88	1915.6	20.89	1922.54	20.89	1.00	3.0	1855.60	56.88
Galula-1_2970-3150-20	0.12572	0.00629	0.3375	0.00562	4.67673	0.31080	2039	95.84	2045.9	23.37	2046.98	23.37	1.01	0.4	2039.00	85.94
Galula-1_2970-3150-21	0.11719	0.00405	0.32458	0.00428	5.24441	0.19271	1913.9	67.37	1812.1	20.81	1799.16	20.81	0.99	6.4	1913.90	67.37
Galula-1_2970-3150-22	0.11239	0.00363	0.25819	0.00306	4.00139	0.1229	1838.5	57.32	1480.6	16.68	1448.16	16.68	0.96	27.0	1838.50	57.32
Galula-1_2970-3150-23	0.1206	0.00386	0.34598	0.00407	5.7538	0.17503	1955.2	55.96	1915.4	19.51	1908.32	19.51	1.00	1.5	1955.20	55.96
Galula-1_2970-3150-24	0.11797	0.00583	0.35821	0.00549	5.82838	0.27458	1925.8	85.98	1877.7	25.06	1980.77	25.06	1.01	2.8	1925.80	85.98
Galula-1_2970-3150-25	0.18698	0.00565	0.49472	0.00559	12.75406	0.3644	2717.5	49	2591.1	24.11	2548.10	24.11	1.06	6.6	2715.70	49.00
Galula-1_2970-3150-26	0.11496	0.00377	0.34598	0.00393	5.45176	0.16807	1875.9	57.88	1905.8	18.86	1909.37	18.86	1.00	1.6	1875.90	57.88
Galula-1_2970-3150-28	0.09241	0.00091	0.28029	0.00059	2.66638	0.25291	1475.8	180.01	1225	120.98	1208.98	120.98	0.94	22.0	1475.80	180.01
Galula-1_2970-3150-29	0.1843	0.00537	0.54083	0.00599	13.75142	0.37643	2693.1	47.33	2786.9	25.05	2827.07	25.05	1.08	4.7	2693.10	47.33
Galula-1_2970-3150-30	0.1264	0.00436	0.35842	0.00466	6.01196	0.20386	1980.4	62.54	1974.7	21.15	1973.82	21.15	1.01	0.3	1980.40	62.54
Galula-1_2970-3150-31	0.1168	0.00687	0.29948	0.00621	5.49326	0.22748	1970.6	97.96	1895.2	27.66	1815.25	27.66	1.00	8.4	1970.60	97.96
Galula-1_2970-3150-32	0.12054	0.00665	0.3259	0.00534	5.41595	0.2818	1964.2	95.26	1818.5	25.95	1795.57	25.95	0.99	9.1	1964.20	95.26
Galula-1_2970-3150-33	0.11661	0.00353	0.33816	0.00378	5.43689	0.15351	1904.9	53.4	1877.8	18.82	1874.17	18.82	1.00	1.6	1904.90	53.40
Galula-1_2970-3150-34	0.11381	0.00373	0.32739	0.00384	5.13759	0.1574	1861.1	58.08	1825.7	18.65	1822.25	18.65	0.99	2.2	1861.10	58.08
Galula-1_2970-3150-35	0.11786	0.00952	0.32016	0.00878	12.77242	0.46426	2634.9	88.18	2699.8	37.26	2724.52	37.26	1.07	3.3	2634.90	88.18
Galula-1_2970-3150-36	0.11628	0.00397	0.32111	0.00385	5.14835	0.16424	1899.7	60.16	1795.2	18.8	1782.14	18.8	0.96	6.6	1899.70	60.16
Galula-1_2970-3150-37	0.1127	0.00379	0.32726	0.00369	5.29653	0.15857	1915	56.92	1825.1	17.93	1813.54	17.93	0.99	5.6	1915.00	56.92
Galula-1_2970-3150-38	0.12079	0.00421	0.3279	0.00412	5.18127	0.20613	1943.2	71.18	1873.7	23.17	1838.36	23.17	1.00	0.5	1943.20	71.18
Galula-1_2970-3150-39	0.11795	0.00397	0.32817	0.0038	5.15748	0.16657	1984.9	56.88	1829.5	18.46	1808.99	18.46	0.99	5.6	1984.90	56.80
Galula-1_2970-3150-40	0.07488	0.00228	0.17392	0.00192	1.79532	0.05076	1065.2	60.16	1033.7	10.53	1032.31	10.53	0.92	3.2	1065.20	60.16
Galula-1_2970-3150-41	0.11443	0.00627	0.31015	0.00494	4.89235	0.25664	1870.9	95.68	1741.5	24.28	1726.28	24.28	0.98	8.4	1870.90	95.68
Galula-1_2970-3150-42	0.12296	0.00126	0.34254	0.0018	5.00864	0.15074	1959.6	154.27	1899.4	39.26	1910.4	39.26	1.00	6.1	1959.60	154.27
Galula-1_2970-3150-44	0.11543	0.00641	0.31613	0.00506	5.02562	0.26825	1886.5	96.69	1770.8	24.77	1756.79	24.77	0.99	7.4	1886.50	96.69
Galula-1_2970-3150-45	0.11876	0.00981	0.33663	0.00757	5.51264	0.43742	1937.7	140.87	1870.4	36.51	1861.37	36.51	1.00	4.1	1937.70	140.87
Galula-1_2970-3150-46	0.11555	0.00577	0.35185	0.00619	5.35428	0.2184	1918.8	65.53	1841.7	20.81	1832.96	20.81	0.98	4.8	1918.80	65.53
Galula-1_2970-3150-48	0.12274	0.00938	0.3109	0.00669	5.39873	0.40055	1956.4	129.96	1758.3	32.7	1758.42	32.70	1.09	13.5	1956.40	129.96
Galula-1_2970-3150-49	0.11664	0.00731	0.36079	0.00643	5.80102	0.31546	1905.3	108.42	1985.9	40.47	1997.87	40.47	1.01	4.6	1905.30	108.42
Galula-1_2970-3150-51	0.11627	0.00843	0.31887	0.00862	5.18052	0.36953	1980.2	121.21	1784.2	30.39	1805.99	30.39	1.09	12.9	1980.20	121.21
Galula-1_2970-3150-52	0.11432	0.00658	0.29736	0.00502	4.68657	0.26274	1869.2	100.37	1758.2	24.93	1757.79	24.93	0.98	8.8	1869.20	100.37
Galula-1_2970-3150-53	0.1155	0.00908	0.31314	0.00682	4.98442	0.38175	1887.6	135.09	1762.4	33.49	1740.43	33.49	0.99	8.5	1887.60	135.09
Galula-1_2970-3150-54	0.1151	0.00609	0.3076	0.00488	4.88081	0.23208	1881.4	92.43	1728.9	24.07	1711.16	24.07	0.99	9.9	1881.40	92.43
Galula-1_2970-3150-55	0.11806	0.00669	0.3046	0.00595	4.94957	0.2742	1927.4</									