

DATA REPOSITORY ITEM 2003087

TABLE DR1. LASER-ABLATION $^{206}\text{Pb}/^{238}\text{U}$ AGES FOR SINGLE GRAINS FROM
 DETRITAL GRAINS FROM PORTPATRICK FORMATION
 TURBIDITE SANDSTONE

Sample	$^{206}\text{Pb}^*$ (V)	1 SE (%)	$^{238}\text{U}^*$ (V)	1 SE (%)	$^{206}\text{Pb}/^{238}\text{U}^\dagger$	1σ § (%)	Age (Ma)	1σ (Ma)
1	0.010	6.9	0.031	5.6	0.1514	2.8	909	24
2	0.011	8.2	0.034	6.5	0.1408	3.3	849	26
3	0.033	7.3	0.084	6.0	0.1772	3.1	1052	30
4	0.005	2.8	0.016	2.4	0.1515	2.5	909	21
5a	0.003	6.3	0.008	4.3	0.1477	3.4	888	29
5b	0.007	4.0	0.019	4.2	0.1690	2.8	1007	26
6	0.015	4.9	0.044	2.9	0.1681	2.9	1001	27
7	0.021	4.0	0.050	3.3	0.1813	2.6	1074	25
8	0.002	6.4	0.008	5.9	0.1417	2.8	854	23
9	0.008	8.4	0.039	7.8	0.1210	2.8	736	19
10	0.005	10.2	0.020	7.8	0.1317	3.7	798	28
11b	0.026	8.6	0.070	7.0	0.2027	3.2	1190	35
12	0.003	3.1	0.011	3.0	0.1647	3.4	983	31
13	0.003	8.0	0.010	6.2	0.1484	3.5	892	29
14	0.002	8.7	0.013	6.6	0.0947	3.4	583	19
15	0.008	6.6	0.040	5.6	0.1006	2.8	618	17
16	0.010	7.3	0.028	6.4	0.1678	2.7	1000	25
17	0.001	5.3	0.003	3.9	0.1374	2.6	830	21
18	0.007	8.1	0.032	6.9	0.0983	2.6	605	15
19	0.009	3.5	0.036	3.4	0.1156	2.5	705	17
20	0.011	4.9	0.033	4.8	0.1633	2.5	975	22
21	0.010	9.7	0.025	7.5	0.1690	3.0	1006	28
22	0.015	6.2	0.036	5.8	0.1900	2.5	1121	26
23	0.010	5.1	0.039	4.7	0.1228	2.6	746	18
24	0.012	6.5	0.038	5.0	0.1498	2.9	900	25
25	0.022	4.3	0.072	4.7	0.1411	2.5	851	20
26	0.014	7.8	0.039	6.5	0.1638	2.6	978	24
27	0.019	2.9	0.046	2.7	0.1838	2.5	1088	25
28	0.021	6.1	0.044	5.8	0.2134	2.5	1247	29
29	0.011	7.7	0.024	7.5	0.2175	2.5	1269	29
30	0.008	6.5	0.022	5.6	0.1728	2.5	1027	24

Note: Sample AX2922; UK national grid reference [NX2900 6997]. Zircons were mounted in 2.5 cm resin blocks and hand polished to expose their cores for analysis by using a ThermoElemental Axiom laser-ablation-multicollector-inductively coupled plasma-mass spectrometer (LA-MC-ICPMS) linked to a new Wave Research 266 nm nd:YAG laser-ablation system (see Foster *et al.*, 2002).

*Beam intensity in volts.

$^\dagger^{206}\text{Pb}/^{238}\text{U}$ ratios corrected for instrumental mass bias and fractionation but not common Pb.

§Fully propagated error.

Reference: Foster, G., Gibson, D., Parrish, R., Horstwood, M., Fraser, J., and Tindle, A., 2002, Textural, Chemical and isotopic insights into the nature and behaviour of metamorphic monazite: *Chemical Geology*, v. 191, p. 183–207.

TABLE DR2. U-Pb DATA FOR DETRITAL-ZIRCON GRAINS FROM PORTPATRICK FORMATION TURBIDITE SANDSTONE

Fraction Code	Sample Mass	U (ppm)	Pb (ppm)	Pb (pg)	²⁰⁶ Pb/ ²⁰⁴ Pb	²⁰⁸ Pb/ ²⁰⁶ Pb	²⁰⁶ Pb/ ²³⁸ U	%	²⁰⁷ Pb/ ²³⁵ U	%	²⁰⁷ Pb/ ²⁰⁶ Pb	%	²⁰⁷ Pb/ ²⁰⁶ Pb age (Ma)	2 ω (Ma)	Rho
2002-1*	1.0	945	145	22	476	0.07	0.1374	0.58	1.314	0.65	0.06936	0.3	910	6	0.89
2002-13*	1.0	939	99	16	533	0.03	0.0994	0.78	0.846	0.88	0.06176	0.4	666	8	0.90
2002-14*	1.0	407	48	19	176	0.04	0.0892	1.81	0.723	2.09	0.05876	1.0	558	22	0.88
2002-18*	1.0	407	68	33	98	0.20	0.0911	1.62	0.736	2.01	0.05863	1.1	553	25	0.82
2002-2*	1.0	336	47	6	2554	0.07	0.1393	1.55	1.325	1.67	0.06899	0.6	898	12	0.93
2002-3*	1.0	774	126	20	513	0.03	0.1533	0.62	1.494	0.69	0.07072	0.3	949	6	0.91
2002-4*	1.0	476	93	36	148	0.03	0.1387	0.99	1.310	1.17	0.06853	0.6	885	12	0.86
2002-6*	1.0	494	88	19	351	0.06	0.1546	0.92	1.523	1.02	0.07146	0.4	971	9	0.91
2002-7*	1.0	1204	145	21	536	0.03	0.1134	0.55	1.022	0.63	0.06539	0.3	787	6	0.89
c	1.6	443	76	10	1587	0.03	0.1752	0.41	1.787	0.50	0.07397	0.3	1041	5	0.84
d	1.2	528	77	17	433	0.05	0.1310	0.61	1.222	0.79	0.06764	0.5	857	10	0.80
e 8 grains	4.8	411	46	18	1035	0.06	0.1089	0.32	0.964	0.41	0.06421	0.3	749	5	0.79
F 2 grains	2.3	510	49	16	634	0.04	0.0926	0.46	0.760	0.63	0.05948	0.4	585	9	0.75
i 6 grains	9.4	210	41	123	152	0.12	0.1320	0.67	1.256	2.54	0.06901	2.4	899	49	0.36
j	5.8	385	62	33	771	0.03	0.1564	0.37	1.592	0.43	0.07382	0.2	1037	4	0.88
k	7.6	158	29	27	565	0.10	0.1653	1.17	1.657	2.52	0.07268	2.1	1005	43	0.55
m*	1.0	272	63	21	185	0.06	0.1764	0.87	1.822	1.11	0.07494	0.6	1067	13	0.82
x3*	1.0	268	63	22	186	0.05	0.1767	0.86	1.801	1.29	0.07392	0.9	1039	18	0.72
2002-8*	1.0	287	55	33	82	0.04	0.0995	1.99	0.830	2.47	0.06054	1.4	623	30	0.82

Notes: All analyses are zircon fractions picked from grains nonmagnetic at 1.8 A. Sample weights and hence U and Pb concentrations are approximate. Measured ratios are corrected for fractionation, common Pb, and spike. Corrections for fractionation, spike, laboratory blank, and initial common Pb used a single-stage Pb-growth model calculated at 1000 Ma (Stacey and Kramers, 1975). Correlation coefficients of ²⁰⁷Pb/²³⁵Pb and ²⁰⁶Pb/²³⁸U were calculated by using procedures and algorithms of (Ludwig, 1993); errors for measured ratios were propagated through data reduction and are stated at 2 ω level.

*Samples were single unweighed grains with concentrations based on an assumed weight of 1 mg.

Reference: Stacey, J.S., and Kramers, J.D., 1975, Approximation of terrestrial lead isotope evolution by a two-stage model: *Earth and Planetary Science Letters*, v. 26, p. 207–221.