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Supplemental Material

Table B1. Summary of zircon characteristics
Table B2. Zircon U-Pb age deduction notes
Table B3. Summary of titanite characteristics
Table B4. Titanite U-Pb age deduction notes

DETAILED ANALYTICAL METHODS

Zircon

Heavy minerals were separated from ~0.5–1 kg of each sample using electronic pulse disaggregation to fragment the rock samples along grain boundaries and fractures in the laboratories of Overburden Drilling Management (ODM) in Ottawa, Canada. Details of the procedures are found at (https://www.odm.ca/minerals-separates-and-epd). Zircon grains were handpicked at StFX University using a binocular microscope and sent to the Canadian Center for Isotopic Microanalysis (CCIM) in Edmonton, Canada for mounting and imaging. The epoxy grain mount (M1522) comprised unknown zircon arranged in closely packed arrays. The mount was polished to a one-micron finish using diamond grits, then washed and dried. It was then coated with 25 nm of high-purity Au prior to scanning electron microscopy (SEM) utilizing a Zeiss EVO MA15 instrument equipped with a high-sensitivity, broadband cathodoluminescence (CL) and backscattered electron detectors. Beam conditions were 15kV and 3–5 nA sample current.

In situ zircon U-Pb analyses were performed in six sessions at the University of Portsmouth, UK. The 15µm spot size facilitated determination of the ages of different growth zones within poly-zoned zircon grains and so capture discrete events in the evolution of the batholith. Care was taken to target optically continuous zones wider than 15 µm. However, there is a possibility of encountering multiple growth zones within a single grain during excavation, which could result in an intermediate, mixed date. Typical excavation depths are estimated to be 3 and 5 µm using a single ablation pulse depth of 0.06µm (Kelly et al., 2014). A Jena PlasmaQuant Elite ICP-MS coupled to an ASI RESOlution 193 nm ArF excimer Laser system was used. Zircon analyses consisted of 15 µm spot size, laser fluency was ~3.0 J/cm2 and its repetition rate was 2 Hz. 20 seconds of background measurement, followed by 30 seconds of ablation and 15 seconds of washout for each analysis. Three pulses of pre-ablation using 20 µm spot size were used to clean the area before each analysis (after the cleaning there was a washout for 15 seconds). The run consisted of 3 analyses of the reference material and thereafter it was analyzed once every 3–4 analyses of unknowns or secondary standards. The reference material (RM) Plešovice zircon (ID-TIMS age of 337.1 ± 0.3 Ma; Sláma et al., 2008) was used as primary standard for these sessions. Temora (ID-TIMS age of 416.75 ± 0.24 Ma; Black et al., 2004) and

Blue Berry – BB9 zircon (LA-ICP-MS age of 562 ± 9 Ma - $^{206}Pb/^{238}U$; Santos et al., 2017) were used as secondary standards to assess the accuracy and precision of the analytical run.

The laser was run at the fluence (on-sample energy) of ~4 J/cm^2, a repetition rate of 3.5 Hz, and a 45 μm spot size. Gas flows were constant at 300 ml/min of ultra-pure helium, 2 ml/min of ultra-pure nitrogen, and 930 ml/min of argon. A sample-smoothing device (squid) was used for this work. Tuning of the ICP-MS was performed on NIST610 SRM monitoring oxide production (ThO/O; $^{248}Th/^{232}Th$) to keep it below a 0.3% threshold (actually < 0.13 for this work) while maximizing sensitivities on the heavy isotopes (Pb, Th, U). Two rotary pumps were used to improve the sensitivities on medium and heavy masses. Masses and dwell times ^{44}Ca (0.01s), ^{49}Ti (0.01s), ^{202}Hg (0.01), ^{204}Pb (0.04s), ^{206}Pb (0.06s), ^{207}Pb (0.08s), ^{208}Pb (0.01), ^{232}Th (0.01), and ^{238}U (0.02)

The calculated $^{206}Pb/^{238}U$ weighted mean age of BB9 across all analytical is 564 ± 1 Ma (mean square weighted deviation (MSWD) 1.23, n = 180/189) while analyses of Temora II yielded a $^{206}Pb/^{238}U$ weighted mean age of 413 ± 2 (MSWD 1.37, n = 33/37). These ages are within systematic uncertainty of accepted ages. The weighted mean age of BB9 for individual analytical sessions ranges between 561 ± 2 Ma (MSWD 1.2, n = 49/50) and 567 Ma ± 3 (MSWD = 1.25, n = 18/19). Excess variance in zircon RM reproducibility, 2.0% for $^{206}Pb/^{238}U$ and 1.0% for $^{207}Pb/^{206}Pb$ (2SE), was added in quadrature to measured ratios. IsoplotR (Vermeesch, 2018) was used to calculate RM weighted means.

Table A.1 Metadata for LA-ICP-MS U-Pb data using the reporting template (Horstwood et al., 2016).

Laboratory and sample preparation	
Laser laboratory	University of Portsmouth
Sample type/mineral	Igneous zircon
Sample preparation[1, 2]	Electronic pulse disaggregation[1], conventional mineral separation[1], 1" resin mount[2], 1μm polish[2]
Imaging[2]	SEM, CL, 15kV, 14mm working distance
Laser ablation system	
Make/model and type	ASI RESOlution, UP193FX
Ablation cell and volume	Dual volume cell, S155
Laser wavelength	193 nm
Pulse width (ns)	4 ns
Fluence (J cm^{-2})	2.5
Repetition rate (Hz)	2
Cleaning	20μm spot for 3 pulses
Ablation duration (s)	30
Spot diameter (μm)	15 μm
Sampling mode/pattern	Static spot ablation
Carrier gas	He (300mL/min) in the cell, Ar (0.88 L/min) and N (3mL/min) make-up gas combined using a Y-piece 50% along the sample transport line to the torch.
ICP-MS Instrument	
Make, model and type	Analytic Jena Plasma Quant Elite Q-ICP-MS
RF power (W)	1300 W
Make-up gas flow (l min^{-1})	Estimated at 0.8 l min-1 Ar.
Detection system	Electron multiplier
Masses measured	202–208, 235, 238
Sensitivity (% element)	Estimated at 1.3 million cps ^{238}U on NIST 612
Data processing	
Gas blank (s)	30 s on-peak zero subtracted
Calibration strategy	Plešovice used as primary reference material, BB9 and Temora II used as secondary/validation
Reference material information	Plešovice (Sláma et al., 2008) BB9 (Santos et al., 2017) Temora II (Black et al., 2004)
Data processing package used/correction for LIEF	Iolite v. 4 (Paton et al., 2011) for data normalization, uncertainty propagation and age calculation. LIEF correction assumes reference material and samples behave identically.
Mass discrimination	Downhole fractionation correction in Iolite
Common-Pb correction, composition and uncertainty	No common-Pb correction applied to the data.
Uncertainty level and propagation	Ages are quoted at 2s absolute, propagation is by quadratic addition. Reproducibility and age uncertainty of reference material are propagated.
Quality control/validation	BB9 – Wtd ave $^{206}Pb/^{238}U$ age = 564 ± 1 (2s, MSWD = 1.23, n = 180/189) Temora II – Wtd ave $^{206}Pb/^{238}U$ age = 413 ± 2 (2s, MSWD = 1.37, n = 33/37) Systematic uncertainty for propagation is 2% (2s).

[1] Overburden Drilling Management (ODM), Ottawa, Ontario, Canada
[2] Canadian Center for Isotopic Microanalysis (CCIM), Edmonton, Alberta, Canada

Titanite

Magmatic titanite was identified in the appinite suite, as well as the Ardara, Fanad, Thorr and Main Donegal plutons. Eleven samples (eight granitoid and three appinites; Table 1) were selected for U-Pb dating. Polished thin sections were examined and photographed using a conventional petrographic microscope at StFX University. LA-ICP-MS data were collected from titanite in polished thin sections at the University of New Brunswick, Canada. Appendix A provides a complete description of the LA-ICP-MS setup and procedure. The primary calibration RM used was Bear Lake Ridge titanite (BLR-1; ID-TIMS age of 1047.1 ± 0.4 Ma; Aleinikoff et al., 2007), MKED-1 titanite was the secondary calibration RM (ID-TIMS $^{206}Pb/^{238}U$ age of 1517.3 ± 0.3 Ma; Spandler et al., 2016), and Otter Lake titanite was the quality control RM(U-Pb SHRIMP age 1016 ± 3.9 Ma; Kennedy et al., 2010). The calculated $^{206}Pb/^{238}U$ weighted mean age of MKED-1 across all analytical sessions is 1511 ± 6 Ma (MSWD 1.3, n = 14/14) while analyses of Otter Late titanite yielded a $^{206}Pb/^{238}U$ weighted mean age of 1032 ± 4 (MSWD 1.7, n = 17/22). Excess variance in titanite RM reproducibility, 2.0% for $^{206}Pb/^{238}U$ (2SE), was added in quadrature to measured ratios. Isoplot v.3.75 (Ludwig, 2012) was used to calculate RM weighted means.

Titanite samples were analyzed using a 45µm laser spot with a 3.5 Hz repetition rate and fluence of 4 J/cm^2. The carrier gases used were nitrogen (2ml/min), helium (300ml/min) and argon (930 ml/min). Titanite was ablated in situ (i.e., within polished thin sections) using a Resonetics M-50 series 193 nm Excimer laser ablation system equipped with a Laurin Technic Pty S-155 ablation cell coupled to an Agilent 7700 × quadrupole ICP-MS. All ablations were conducted in a mixed He (325 mL/min) and Ar (930 mL/min) carrier gas. Sensitivity of Pb and U were enhanced using a second external rotary pump and adding N2 (2 mL/min) downstream of the cell. High capacity in-line Hg traps on all gas lines ensure that ^{204}Hg remains < 150 cps under high-sensitivity conditions. Correction via peak stripping of ^{204}Hg interference on ^{204}Pb was performed using the net ^{202}Hg ion beam, which had negligible effect on the net ^{204}Pb signal (McFarlane and Luo, 2012).

The primary calibration standard used was Bear Lake Ridge titanite (BLR-1; ID-TIMS age of 1047.1 ± 0.4 Ma; Aleinikoff et al., 2007), MKED-1 titanite was the secondary calibration standard (ID-TIMS ^{206}Pb/^{238}U age of 1517.3 ± 0.3 Ma; Spandler et al., 2016), and Otter Lake titanite was the QC standard (U-Pb SHRIMP age 1016 ± 3.9 Ma; Kennedy et al., 2010). The calculated ^{206}Pb/^{238}U weighted mean age of MKED-1 across all analytical sessions is 1511 ± 6 Ma (MSWD 1.3, n = 14/14) while analyses of Otter Late titanite yielded a ^{206}Pb/^{238}U weighted mean age of 1032 ± 4 (MSWD 1.7, n = 17/22). Excess variance in titanite RM reproducibility, 2.0% for ^{206}Pb/^{238}U (2SE), was added in quadrature to measured ratios. All U–Pb data were reduced using the IOLITE data reduction package (Paton et al., 2011) using the VizualAge data reduction scheme (DRS) (Petrus and Kamber, 2012) and the VizualAge_UcomPbine DRS for titanite (Chew et al., 2014). Isoplot (Ludwig, 2012) was used to calculate RM weighted means.

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Table B1 – Summary of zircon characteristics

Sample	Colour	Size (μm)	Aspect ratio (L:W)	Morphology	CL internal zoning
DA18-004	colorless, transparent, pale yellow	25-400	2:1 - 4:1	mainly euhedral	Oscillatory zoning in most grains, few have dark cores and bright rims,
DA18-008	colorless, pale brown	25-200	2:1 - 3:1	subhedral to euhedral	Oscillatory zoning, bright cores with darker rims
DA18-011	colorless, pale yellow	25-300	2:1 - 3:1	mainly subhedral to euhedral	Oscillatory and irregular zoning, some grains contain apatite inclusions
DA18-014	colorless, transparent	25-250	1:1 - 3:1	subhedral	Oscillatory and sector zoning, some grains have dark cores and bright rims
DA18-015	colorless, transparent	25-250	2:1 - 3:1	mainly euhedral to subhedral	Oscillatory and sector zoning, some grains have dark cores and brighter rims
DA18-018	transparent, pale yellow, colorless	25-250	2:1 - 5:1	mainly euhedral	Oscillatory and sector zoning, some grains have dark cores and brighter rims
DA18-022	colorless to pale brown	25-500	2:1 - 3:1	mainly subhedral	Oscillatory zoning, most grains are dark and unzoned with a narrow bright rim
DA18-023	colorless to pale brown	25-400	2:1 - 3:1	mainly euhedral to subhedral	Oscillatory and sector zoning
DA18-026	transparent, pale brown, colorless	25-500	2:1 - 4:1	mainly euhedral to subhedral	Oscillatory zoning, some grains have dark cores and brighter rims
DA18-029	colorless to pale brown	25-250	2:1 -3:1	mainly subhedral	Bright, oscillatory zoning in cores and dark, unzoned rims
DA18-032	colorless to pale yellow	25-400	2:1 - 3:1	mainly subhedral	Bright, oscillatory zoning in cores and dark, unzoned rims
DA18-044	colorless to pale brown	25-250	2:1 - 3:1	mainly subhedral	Oscillatory zoning, brighter cores with darker rims
DA18-047	transparent, colorless, pale yellow	25-400	2:1 - 5:1	mainly euhedral to subhedral	Oscillatory and sector zoning, some grains have dark cores and brighter rims
DA18-048	colorless to pale brown	25-300	2:1 - 3:1	mainly subhedral	Oscillatory zoning
DA18-051	colorless, transparent	25-300	2:1 - 4:1	mainly subhedral to euhedral	Oscillatory and minor irregular zoning
DA18-056	colorless, transparent, pale yellow	25-200	2:1 -3:1	mainly euhedral to subhedral	Oscillatory and sector zoning, some grains have irregular zoning
DA18-057	colorless, transparent	25-200	1:1 - 3:1	mainly euhedral to subhedral	Oscillatory and sector zoning, some grains have irregular zoning

Abbreviations: L, length; W, width; CL, cathodoluminescence

Table B2 – Zircon U-Pb age deduction notes

Sample	n	n concordant	Weighted-mean (Ma ± 2SE)	MSWD	Concordia age (Ma ± 2SE)	MSWD	Remarks
DA18-004 (Thorr)	38	19	414 ± 4 (n=11)	0.8	-	-	Three core/rim pairs have equivalent dates. Three concordant analyses have dates at ca. 400 Ma represent Pb-loss. Five concordant dates at ca. 434-422 Ma are inherited.
DA18-008 (Rosses)	33	7	420 ± 6 (n=4)	0.6	-	-	Two core/rim pairs yielded at least one discordant date. One grain represents Pb-loss. Three inherited grains have dates between ca. 439-437 Ma.
DA18-011 (Thorr)	42	16	413 ± 5 (n=10)	1.5	413 ± 4 (n=10)	0.1	Three grains with dates less than 400 Ma represent Pb-loss. Three older grains are inherited (Appendix C). One core/rim pair has equivalent dates within 2SE (sys) uncertainty. One core/rim pair has non-equivalent dates (425 ± 13 Ma and 399 ± 12 Ma). Two core/rim pairs have discordant dates.
DA18-014 (Fanad)	33	18	416 ± 4 (n=15)	1.5	-	-	Two core/rim pairs have equivalent dates within 2SE (sys) uncertainty. One grain represents Pb-loss. Two inherited grains are 450 ± 12 and 433 ± 10 Ma.
DA18-015 (Fanad)	51	46	418 ± 3 (n=39)	1.4	418 ± 3 (n=39)	0.7	Five core/rim pairs have equivalent dates within 2SE (sys) uncertainty. Three core-rim pairs have different dates. One core/rim pair yields at least one discordant date. Three dates at ca. 400 Ma represent Pb-loss. Four older dates are inherited (Appendix C).
DA18-018 (Fanad)	62	43	411 ± 3 (n=37)	1.4			One grain at ca. 390 Ma represents Pb-loss. Five inherited grains have dates between ca. 435-425 Ma.
DA18-022 (Thorr)	52	15	428 ± 3 (n=6)	0.3	-	-	Two concordant core/rim pairs have equivalent dates within 2SE (sys) uncertainty. Seven core/rim pairs yield at least one discordant date. One concordant grain (ca. 416 Ma) represents Pb-loss. Seven dates between ca. 445 and 435 Ma are inherited. One inherited core in a grain is ca. 950 Ma.
DA18-023 (Thorr)	62	42	420 ± 3 (n=34)	1.1			A cluster of five inherited grains yields a weighted-mean date of 438 ± 5 Ma (MSWD 0.6). Other inherited grains have dates of ca. 1294, 1024 and 989 Ma. One concordant core/rim pair has equivalent dates within 2SE (sys) uncertainty. Two core/rim pairs yield at least one discordant date. Two core/rim pairs yielded different dates (1024 ± 30 and 421 ± 12 Ma; 1294 ± 37 and 429 ± 13 Ma).
DA18-026 (MDG)	65	46	414 ± 3 (n=31)	1.4	-	-	Five concordant core/rim pairs have equivalent dates within 2SE (sys) uncertainty. Two core/rim pairs yield at least one discordant date. Two core/rim pairs yielded different dates (422 ± 13 and 395 ± 12 Ma; 434 ± 14 and 398 ± 12 Ma). Eight older grains between ca. 445 and 426 Ma are inherited. Seven grains with dates at ca. 400 Ma represent Pb-loss.

Zircon analyses are deemed concordant if their 2SE (standard error) covaried error ellipse overlaps with the concordia curve. All weighted-mean age calculations use the $^{206}Pb/^{238}U$ ratios. Abbreviations: n, number of zircon analyses; MSWD, mean square of weighted deviates. Abbreviations: MDG, Main Donegal pluton; TBay, Trawenagh Bay pluton; Bmore, Barnesmore pluton.

Table B2– Zircon U-Pb age deduction notes *continued…*

Sample	n	n concordant	Weighted-mean (Ma ± 2SE)	MSWD	Concordia age (Ma ± 2SE)	MSWD	Remarks
DA18-029 (MDG)	44	13	419 ± 13 (n=4)	2.1	419 ± 6 (n=4)	0.1	Two grains with dates at ca. 395 Ma represent Pb-loss. Seven grains, mostly in zircon cores have inherited dates between ca. 1303 and 430 Ma. Eight core/rim pairs yield at least one discordant date. Three core/rim pairs yield different dates (Appendix C). Concordant data in three grains have rim analyses with extremely high U concentrations (>10,000ppm) and geologically improbable dates younger than ca. 200 Ma.
DA18-032 (MDG)	30	15	ca. 400 Ma (n=2)	-	-	-	Two concordant grains at ca. 400 Ma. Thirteen inherited concordant dates are between ca. 1699 and 974 Ma (Appendix C).
DA18-044 (TBay)	8	4	ca. 404 Ma (n=1)	-	-	-	Youngest concordant grain is 404 ± 10 Ma. Three grains have dates of ca. 482 Ma, 440 Ma and 427 Ma.
DA18-047 (Thorr)	52	48	408 ± 3 (n=39)	1.1	408 ± 3 (n=39)	0.2	One core/rim pair yield equivalent dates within 2SE (sys) uncertainty. One core/rim pair yielded one discordant date. Seven concordant grains (ca. 390 Ma) represent Pb loss. Two concordant grains (ca. 486 and 427 Ma) are inherited.
DA18-048 (Bmore)	28	6	412 ± 26 (n=3)	3.9			Data are highly discordant (Appendix C). Six concordant dates spread along concordia. Three concordant dates are likely inherited. Four core/rim pairs yielded at least one discordant date.
DA18-051 (Ardara)	49	11	ca. 424 (n=2)		-	-	Seven core/rim pairs yield at least one discordant date. Four concordant core/rim pairs yielded equivalent dates within 2SE (sys) uncertainty. An older population has a weighted-mean date of 447 ± 3 Ma (MSWD 0.8, n=5). Other grains have inherited dates of ca. 471 to 466 Ma (n=3) and ca. 1738 Ma
DA18-056 (Ardara)	53	6	428 ± 4 (n=4)	0.8	-	-	Eight core/rim pairs yielded at least one discordant date. Two grains with dates of ca. 444 and 439 Ma are inherited.
DA18-057 (Ardara)	56	36	426 ± 4 (n=27)	1.3	426 ± 3 (n=27)	1.1	One concordant core/rim pair has equivalent dates within 2SE (sys) uncertainty. Four core/rim pairs yielded at least one discordant date. One concordant core/rim pair yields different dates (ca. 457 and 421 Ma). An inherited population between ca. 463-440 Ma yields a weighted-mean date of 450 ± 8 Ma (MSWD 1.9, n=8).

Zircon analyses are deemed concordant if their 2SE (standard error) covaried error ellipse overlaps with the concordia curve. All weighted-mean ages were calculated using the $^{206}Pb/^{238}U$ ratios. Abbreviations: n, number of zircon analyses; MSWD, mean square of weighted deviates. Abbreviations: MDG, Main Donegal pluton; TBay, Trawenagh Bay pluton; Bmore, Barnesmore pluton.

Table B3 – Summary of titanite characteristics

Sample	Morphology	Max size (mm)	Notes
DA18-014	Mostly anhedral	<1.0	Rock is plagioclase porphyritic and titanite occurs in the groundmass, interstitial to quartz and biotite with inclusions of biotite and apatite
DA18-015	Subhedral to euhedral	<1.5	Minor fracturing, some grains contain inclusions of amphibole
DA18-023	Euhedral	<1.0	Fracturing, some titanite crystals are completely enclosed by perthitic microcline
DA18-026	Anhedral to subhedral	<1.25	Minor fracturing, long axis in elongate grains is oriented parallel to the foliation, inclusions of apatite
DA18-047	Euhedral	<2.5	All analyses in one, large grain. Fracturing, contains inclusions of quartz, apatite and an opaque mineral
DA18-051	Subhedral to euhedral	<1.0	Fractured, poikilitic with inclusions of biotite
DA18-056	Anhedral to subhedral	<1.25	Poikilitic with inclusions of green amphibole and apatite
DA18-057	Subhedral to Euhedral	<1.5	Minor fracturing
DA19-065	Subhedral	<1.0	Fractured, altered along fracture planes
DA19-082	Anhedral to subhedral	<0.75	Titanite is interstitial between amphibole grains and occurs as inclusions in amphibole
DA19-088	Subhedral to anhedral	<0.5	Titanite is interstitial between amphibole grains and occurs as inclusions in amphibole

Table B4 – Titanite U-Pb age deduction notes

Sample	Number of grains	Total n	n concordant	Weighted-mean (Ma ± 2σ)	MSWD	Concordia age (Ma ± 2σ)	MSWD	Remarks
DA18-014 (Fanad)	3	15	4	398 ± 25 (n=4)	0.4	-	-	Best date is an intercept of 404 ± 15 Ma (MSWD 1.8, n=15)
DA18-015 (Fanad)	5	23	17	422 ± 3 (n=8)	1.1	422 ± 2 (n=8)	1.7	Five concordant dates at ca. 410-390 Ma represent Pb-loss. Four older dates (two each at ca. 2600 Ma ca. 433 Ma) are inherited.
DA18-023 (Thorr)	3	25	13	420 ± 4 (n=13)	1.9	419 ± 2 (n=12)	3.0	One older analysis omitted from concordia age calculation
DA18-026 (MDG)	4	44	24	413 ± 3 (n=22)	2.6	418 ± 2 (n=18)	1.7	Calculations omit younger domains that plot below the main cluster at ca. 418-413 Ma
DA18-047 (Thorr)	1	33	19	418 ± 6 (n=19)	0.5	418 ± 5 (n=19)	0.1	All analyses on one large grain.
DA18-051 (Ardara)	4	22	10	428 ± 4 (n=4)	0.3	429 ± 3 (n=4)	0.1	One concordant date (ca. 420 Ma) represents Pb-loss. Five concordant dates are inherited (ca. 455-440 Ma).
DA18-056 (Ardara)	3	30	22	429 ± 2 (n=16)	1.0	429 ± 2 (n=16)	0.4	Concordia age calculated using cluster of 16 dates. Two young dates represent Pb-loss. Four concordant dates (ca. 450-438 Ma) are inherited.
DA18-057 (Ardara)	4	28	27	428 ± 3 (n=18)	1.0	429 ± 2 (n=18)	0.1	Zones within three grains have inherited dates of ca. 574, 516, 460 and ca. 444-435 Ma. Concordia age calculated using cluster of 18 dates.
DA19-065 (Appinite)	3	54	15	431 ± 6 (n=8)	2.4	432 ± 3 (n=8)	0.8	Older population of domains have a weighted-mean date of 450 ± 5 Ma (MSWD 1.2, n=7)
DA19-082 (Appinite)	4	20	8	419 ± 5 (n=3)	3.0	419 ± 4 (n=3)	1.0	Two age populations. The older population has a weighted-mean date of 447 ± 4 Ma (MSWD 0.9, n=5)
DA19-088 (Appinite)	7	29	25	426 ± 2 (n=17)	1.4	427 ± 2 (n=17)	1.5	Five concordant dates in three grains represent Pb-loss. Three concordant inherited zones in two grains have dates between ca. 452 and 440 Ma.

Titanite analyses are deemed concordant if their 2SE (standard error) covaried error ellipse overlaps with the concordia curve. All weighted-mean ages were calculated using the $^{206}Pb/^{238}U$ ratios. Weighted-mean age calculations include only concordant data. Abbreviations: n, total number of titanite analyses; MSWD, mean square of weighted deviates; MDG, Main Donegal pluton.