A reappraisal of the early slip history of the San Andreas fault, central California, USA

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Supplementary Materials

Appendix DR1: Analytical Methods

Overview

Zircons were extracted from 3-5 kg sandstone samples using standard size, hydrodynamic, density, and magnetic mineral separation techniques at Stanford University. Sample locations were selected to ensure stratigraphic coverage of each formation represented by more than one sample. U-Pb analyses of detrital zircons were conducted using laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) at the University of Arizona Laserchron Center and at the University of California Santa Cruz (Tables DR2-3). The results were conservatively filtered (< 3% total data exclusion) to exclude less interpretable analyses based on the following criteria: discordance (>30%), reverse discordance (>5%), common ^{204}Pb content (>200-400 counts per second), and age precision (>10-15%).

University of Arizona Laserchron Center

Data from the University of Arizona Laserchron Center were analyzed using a multicollector LA-ICP-MS (Nu HR ICPMS) with a 30 micron spot diameter (Table DR2). An age cutoff of 800 Ma was used between common ^{204}Pb-corrected ^{206}Pb/^{207}Pb and ^{206}Pb/^{238}U ages. For an additional description of methods, refer to Gehrels et al. (2008) and Cassel et al. (2012).

University of California Santa Cruz LA-ICP-MS Laboratory

Overview

Data from the University of California Santa Cruz LA-ICP-MS laboratory were analyzed using a single-collector Element XR high-resolution magnetic-sector ICP-MS and a Photon Machines Analyte.H 193 nm ArF excimer laser equipped with a Helex 2-volume laser ablation cell. A 26 micron spot diameter was used for all analyses. Ablated aerosol is transported through 4 mm OD Teflon tubing and through an all-Teflon "Squid" signal smoothing manifold after addition of argon sample gas. The ATLEX 300i laser is energy stabilized at 4.5 mJ. Downstream, a user settable beam attenuator provides energy density control.

An age cutoff of 800 Ma was used between common ^{207}Pb-corrected ^{206}Pb/^{238}U ages and common ^{204}Pb-corrected ^{207}Pb/^{206}Pb ages.

Sample Preparation

As many as eight detrital and/or igneous zircon samples are mounted in rows on double-sided sticky tape using a mask cut from the tape backing film. Several fragments of zircon standard are mounted in smaller rows at the center of the mount. Sri Lankan zircon (SL2) (563 Ma; Gehrels et al., 2008) is used as the primary standard and Plesovice (337 Ma; Sláma et al., 2008) is used as a secondary standard. The grains are then potted in a 2.5 cm ring form using Struers Epofix epoxy. Cured mounts are removed from their ring forms and the upper meniscus is cut off with a parting tool and lathe. The back of the mount is lightly polished to permit transmitted light imaging. The mount surface is lightly polished with 1,500 grit sandpaper followed by 9 μm and then 3 μm Struers polishing compounds on a LaboPol 5 lap wheel. Optical and/or cathodoluminescene (CL) imaging is conducted at the Stanford-USGS Microanalytical Center. If applied, the gold coat for

CL imaging is removed with a brief 1 μm polish. All mounts are washed in 1% HNO_3 and rinsed in MilliQ water prior to installation in the Helex-2 volume cell.

Tuning Parameters

Argon and helium gas flows and torch XY position are tuned to achieve Th/U ≈ 1, with minimal (<0.2%) ThO. A well-tuned instrument with 5.76 J/cm^2 laser energy density yields typical ^{238}U sensitivity on the order of 15,000 cps/ppm on NIST 612 glass (10 μm/s raster, 43 μm spot) and 9,000 cps/ppm on SL2 zircon (26 μm spot). Higher U sensitivity is possible although this comes at the expense of increased oxides and dramatically decreased Th/U ratios.

Analytical Process

A series of four primary (SL2) and secondary standard (Plesovice) analyses are run at the beginning and end of each session. Primary standards are run after every fifth unknown analysis and are paired with a secondary standard after every tenth unknown analysis. A series of two primary and two secondary standards are run between samples on the same mount. This protocol allows the secondary standard to provide an accuracy and precision monitor (approximately 15 secondary standard analyses are collected per 100 unknown analyses). Each analysis consists of 30 seconds of background measurement (laser off), 30 seconds of sample measurement (laser firing), and 20 seconds of delay before the next analysis to purge the previous sample.

Data Reduction

Data are reduced using the Iolite (version 2.2; www.iolite.org.au/Iolite.html) (Paton et al., 2010) and VisualAge (version 2012-05-29; http://www.japetrus.net/va/) add-ons for Igor Pro. We maintain that the exponential detrending algorithm based on the down-hole fractionation of standards is a more robust approach than linear regression, ratio-of-means, and mean-of-ratios data reduction methodologies. Specifically, we favor the detrending approach (Paton et al., 2010) because unknowns that exhibit different fractionation behavior from the primary standards maintain a temporal trend after down-hole correction and result in a higher standard deviation when the resultant ratios are averaged. Thus, the estimate of internal precision accounts for any differences between the ablation behavior of the standards and the unknowns.

A combination of triggered acquisition and the reproducible sample washout of the Helex-2 allow for automatic integration based on fixed time windows without modification. Integration regions are resized if: (1) drill-through is observed based on a rapid decrease in total beam prior to the end of lasing, or (2) spikes of ^{204}Pb are observed in the background corrected ^{204}Pb signal. Total ^{204}Pb backgrounds (Pb +Hg) are typically ~300 cps +/- 10 cps. Other than ^{204}Pb spikes related to inclusions or correlated with high U zones (possibly reflecting high radiation damage), average background-subtracted signals are typically less than a conservatively estimated limit of detection of three times the standard error of the background signal. For this reason, we do not apply a ^{204}Pb correction and instead utilize the ^{207}Pb-corrected $^{206}Pb/^{238}U$ age. The ^{207}Pb correction is calculated using Isoplot (version 4.15) assuming an initial Pb composition based on a two-stage model of terrestrial lead isotope evolution (Stacey and Kramers, 1975; Table DR3). A ^{204}Pb-corrected $^{207}Pb/^{206}Pb$ age is applied to grains with $^{206}Pb/^{238}U$ ages greater than 800 Ma (Table DR3).

Typical Laser Parameters

Laser Energy: 4.5 mJ

Spot size: 26 µm or 34 µm diameter spot

Rep. Rate: 8 Hz

Shot count: 240 (30 s ablation)

Attenuator setting: 30% → 5.76 J/cm^2

Average Ablation Rate: 0.75 nm/pulse → 20 µm pit depth

Gas Flow Parameters

Nebulizer (argon) ~0.700 L/min

Add 1 (sampling cone; helium) ~0.700 L/min

Add 2 (cell pressure; helium) ~0.500 L/min)

Method Parameters

^{202}Hg (15 ms)

^{204}Pb (15 ms)

^{206}Pb (15 ms)

^{207}Pb (30 ms)

^{208}Pb (15 ms)

^{232}Th (3 ms)

^{235}U (6 ms)

^{238}U (3 ms)

Total Dwell time (102 ms)

Cycle period (120 ms; 8.3 Hz)

Duty cycle (84%)

Appendix DR2: Kolgomorov-Smirnov Statistics

The Butano-Point of Rocks correlation can be quantitatively evaluated using the Kolgomorov-Smirnov (K-S) statistic. The K-S test is a nonparametric assessment of whether two distributions are different from each other, and it tests the null hypothesis that two distributions are derived from the same parent population (Press et al., 1986). The K-S test is "applicable to unbinned distributions that are functions of a single independent variable" and is based on the maximum separation (D-value) of the cumulative distribution functions (CDFs) between two detrital zircon age distributions (Press et al., 1986). Sample error was used in the CDFs which effectively "smooths" an otherwise step-like distribution and yields a more conservative result (i.e., difficult to reject the null hypothesis). All statistical calculations use the software of J. Guynn (https://sites.google.com/a/laserchron.org/laserchron/).

This approach reveals that the Butano Sandstone and Point of Rocks Sandstone are statistically distinct from each other at a 95% confidence level (i.e., P-value < 0.05; Table DR4). In addition, the K-S test is unable to distinguish between samples from the same geographic areas at a 95% confidence level (i.e., northern Salinian block, Great Valley forearc, and San Emigdio Mountains), with the exception of one Butano Sandstone sample (BUT-4) that is statistically distinct from three other northern Salinian block samples (BUT-2, BUT-3, and SJB-1) at 95% confidence (Table DR4). In addition, the northern Salinian block samples are indistinguishable from the San Emigdio Mountain samples with the exception of one Butano Sandstone sample (BUT-4) that is distinct from SEF-1 and TEJ-2 at 95% confidence (Table DR4).

Appendix DR3:

Correlation of Logan quartz gabbro and anorthositic gabbro with the Western San Emigdio Mafic Complex (WSEMC)

Isolated exposures of Middle- to Late-Jurassic gabbroic rocks are present in the central Coast Ranges adjacent to the San Andreas fault at several locations: near the town of Logan in the northern Gabilan Range, Gold Hill in the southern Diablo Range, and in the western San Emigdio Mountains (Ross, 1970; Ross, 1984). Ross (1970) noted the petrographic, geochronological, and geochemical similarity of these units and inferred that their distribution is a result of about 320 km of displacement and slivering along the San Andreas fault.

The isolated exposures at Logan and Gold Hill comprise "virtually identical" hornblende quartz gabbro and anorthositic gabbro that were interpreted to be of oceanic affinity (Ross, 1970). The Gold Hill exposures were interpreted to represent an isolated sliver of gabbroic rocks left behind during strike-slip faulting (Ross, 1970). The western San Emigdio mafic complex (WSEMC; Chapman et al., 2012) was identified as a likely candidate for the parent mass of the Logan and Gold Hill gabbroic rocks based on "somewhat similar" petrographic and geochemical characteristics (Ross, 1970). Ross (1970) noted that this correlation was "less certain", as a result of imperfect petrographic similarity with the Logan-Gold Hill gabbroic rocks, but still plausible, especially since there are no known alternative occurrences of gabbroic rocks that could provide the distinctive mafic lithologies found at Logan and Gold Hill.

Correlation of the San Juan Bautista Formation and Tejon Formation

Both the Logan gabbroic rocks and the WSEMC are overlain by Eocene to Miocene sedimentary successions (Nilsen, 1984; Nilsen, 1987). Nilsen (1984) suggested that Eocene strata that overly the Logan gabbroic rocks (San Juan Bautista Formation) and the WSEMC

(Tejon Formation) are correlative based on the similarity of the stratigraphic successions present at these locations. Both formations include a basal conglomerate that rests directly on crystalline basement, a middle shale unit, and an upper sandstone unit (Nilsen, 1984; Nilsen, 1987). These units are unnamed for the San Juan Bautista Formation (Nilsen, 1984), but are formal members of the Tejon Formation (Uvas Conglomerate member, Liveoak Shale member, and Metralla Sandstone member; Nilsen, 1987).

Discussion of the northern Gabilan Range – western San Emigdio Mountain piercing points

While the correlation of gabbroic rocks and overlying Eocene strata in the vicinity of the northern Gabilan Range and western San Emigdio Mountains has been supported in the literature (Ross, 1984; Dickinson, 1997; Dickinson et al., 2005; Chapman et al., 2012), we consider these piercing points to be tenuous for the following reasons:

1) The exposures of gabbroic rocks at Logan and in the western San Emigdio Mountains are relatively small and isolated (~5 km^2 and 18 km^2, respectively). In both cases they are onlapped by sedimentary cover that obscures their true extent. In the case of the WSEMC, present-day outcrops are located ~4 km from the trace of the San Andreas fault, requiring projection of the outcropping lithologies to the San Andreas fault. The combination of these factors results in a relatively high spatial uncertainty for these piercing points.

2) The origin and structural history of the Logan-Gold Hill-WSEMC body is controversial. Originally interpreted as having "oceanic affinity" akin to the Coast Range ophiolite (Ross, 1970), more recent work has suggested similarity with lithologies in the southwestern Foothills Belt of the Sierra Nevada (Chapman et al., 2012). Chapman et al. (2012) conclude that the Logan-Gold Hill-WSEMC body is an allochthon that was structurally

emplaced by gravitational collapse from ca. 85-80 Ma along a detachment bounded to the southeast by the proto-White Wolf fault. This event is broadly synchronous with, or even predates, the structural emplacement of the northern Salinian block during Late Cretaceous to Paleocene time (Suppe, 1970; Page, 1981; Dickinson, 1983; Hall, 1991; Chapman et al., 2012; Fig. 4). Offsets of the Logan-WSEMC body are ~100 km less than offsets between Late Cretaceous plutonic rocks of the northern Salinian block and the western edge of Sierran basement beneath the Great Valley (Dickinson et al., 2005). Such a large discrepancy between offset basement features that were apparently emplaced during a similar time frame is difficult to reconcile. Given these uncertainties, additional research is needed to: (1) establish the structural and geochronological relationship between the Jurassic WSEMC and the Cretaceous granitic and gneissic lithologies of the southernmost Sierra Nevada, and (2) corroborate the Logan-WSEMC correlation using modern methodologies.

3) Poor outcrop quality, limited exposure, and revised interpretations of field relationships of the San Juan Bautista Formation hamper its definitive correlation with the Tejon Formation. For example, the basal conglomerate unit of the San Juan Bautista Formation is reported to overlie anorthositic gabbro about 2 km northwest of the town of San Juan Bautista in limited exposures (<0.04 km^2) within an abandoned quarry (Nilsen, 1984). However, attempts to locate this unit in its mapped location have proven unsuccessful; instead Eocene shale that is in probable fault contact with the crystalline basement is present locally (R. McLaughlin, personal correspondence). We consider the absence of overlying conglomerate at Logan or San Juan Bautista to suggest that the San Juan Bautista Formation and Tejon Formation cannot be uniquely correlated to each other. In addition, the lack of conspicuous conglomerate overlying the Logan gabbroic rocks suggests that these mafic lithologies cannot be precisely correlated to

those in the WSEMC where sandstone and conglomerate of the Uvas Conglomerate member form prominent ridges (Nilsen, 1987).

4) Correlation of the Logan gabbroic rocks with the WSEMC juxtaposes the incompatible detrital zircon age distributions of the Butano Sandstone with the Point of Rocks Sandstone across the San Andreas fault (Figs. 1, 2). See discussion in main text for more details.

Table DR1: Sample locations

Sample	Stratal Unit	Coordinates (WGS84) Latitude	Longitude
POR-3	Point of Rocks Sandstone	35.38175	-119.77914
POR-2	Point of Rocks Sandstone	35.43772	-119.84809
POR-1	Point of Rocks Sandstone	35.72727	-120.01812
SJB-1	San Juan Bautista Formation	36.86272	-121.60069
BUT-5	Butano Sandstone	37.37850	-122.26370
BUT-4	Butano Sandstone	37.19889	-122.19639
BUT-3	Butano Sandstone	37.23231	-122.23231
BUT-2	Butano Sandstone	37.15930	-122.23500
BUT-1	Butano Sandstone	37.14267	-122.19014
SEF-1	San Emigdio Formation	34.91706	-119.16808
TEJ-2	Tejon Formation - Metralla Sandstone Member	34.90597	-119.15653
TEJ-1	Tejon Formation - Uvas Conglomerate Member	34.89947	-119.15006

Table DR2: U-Th-Pb isotope composition of detrital zircons analyzed at the University of Arizona Laserchron Center

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-2-64	188	2454	1.6	24.5772	13.6	0.0375	13.8	0.0067	1.9	0.14	43.0	0.8	37.4	5.1	-307.1	350.6	43.0	0.8
POR-2-85	401	1830	2.0	21.7259	16.3	0.0462	16.4	0.0073	1.4	0.09	46.7	0.7	45.8	7.3	-0.9	396.1	46.7	0.7
POR-2-33	1728	18460	19.2	21.5645	1.7	0.0480	2.7	0.0075	2.1	0.77	48.2	1.0	47.6	1.3	17.0	41.2	48.2	1.0
POR-2-82	1535	19514	5.8	21.4482	2.2	0.0485	2.9	0.0075	1.9	0.66	48.4	0.9	48.1	1.4	30.0	51.8	48.4	0.9
POR-2-7	299	2332	1.5	23.7910	11.0	0.0443	11.0	0.0076	1.1	0.10	49.1	0.5	44.0	4.8	-224.6	276.9	49.1	0.5
POR-2-52	343	1992	0.9	22.3831	6.4	0.0471	6.5	0.0077	1.0	0.15	49.1	0.5	46.8	3.0	-73.2	156.5	49.1	0.5
POR-2-61	223	3490	2.2	21.9466	30.7	0.0484	31.7	0.0077	8.0	0.25	49.5	3.9	48.0	14.8	-25.3	757.7	49.5	3.9
POR-2-72	982	7426	2.1	21.5181	3.2	0.0511	3.8	0.0080	2.0	0.52	51.2	1.0	50.6	1.9	22.2	77.4	51.2	1.0
POR-2-30	667	4834	1.5	22.0000	5.0	0.0534	5.1	0.0085	0.6	0.11	54.7	0.3	52.8	2.6	-31.2	122.2	54.7	0.3
POR-2-34	951	9630	3.4	21.4313	2.6	0.0723	2.7	0.0112	0.7	0.27	72.1	0.5	70.9	1.8	31.9	61.8	72.1	0.5
POR-2-9	933	5528	2.3	20.8514	5.3	0.0804	6.1	0.0122	2.9	0.48	77.9	2.3	78.5	4.6	97.2	126.3	77.9	2.3
POR-2-56	684	3760	5.5	20.2636	5.4	0.0851	6.8	0.0125	4.2	0.62	80.2	3.4	83.0	5.4	164.5	125.3	80.2	3.4
POR-2-53	68	834	1.4	18.0164	40.5	0.1018	40.7	0.0133	4.0	0.10	85.2	3.4	98.5	38.2	432.6	937.8	85.2	3.4
POR-2-84	921	5364	3.2	20.3306	2.4	0.0909	4.2	0.0134	3.4	0.82	85.8	2.9	88.3	3.5	156.7	55.7	85.8	2.9
POR-2-57	779	4352	1.7	20.5568	2.4	0.0903	2.5	0.0135	0.5	0.21	86.2	0.4	87.8	2.1	130.8	57.0	86.2	0.4
POR-2-41	1406	25402	20.6	20.7765	1.9	0.0915	2.2	0.0138	1.0	0.46	88.3	0.9	88.9	1.9	105.7	45.9	88.3	0.9
POR-2-83	632	5168	2.3	20.3412	3.6	0.0950	4.1	0.0140	1.9	0.47	89.8	1.7	92.2	3.6	155.5	84.8	89.8	1.7
POR-2-28	934	22452	3.3	21.0990	2.7	0.0924	2.7	0.0141	0.7	0.25	90.5	0.6	89.8	2.4	69.2	63.3	90.5	0.6
POR-2-96	891	14230	2.7	21.1077	1.3	0.0930	1.9	0.0142	1.4	0.73	91.1	1.3	90.3	1.6	68.2	30.7	91.1	1.3
POR-2-38	1599	6328	4.3	19.2152	12.4	0.1027	12.4	0.0143	0.6	0.05	91.6	0.5	99.3	11.8	287.2	284.7	91.6	0.5
POR-2-78	606	9058	2.0	21.1421	1.5	0.0940	2.5	0.0144	2.0	0.80	92.2	1.8	91.2	2.2	64.4	35.7	92.2	1.8
POR-2-74	770	9540	2.8	21.1044	2.9	0.0947	3.1	0.0145	1.2	0.38	92.7	1.1	91.8	2.7	68.6	67.9	92.7	1.1
POR-2-90	368	1408	3.6	12.5910	39.1	0.1591	39.6	0.0145	6.7	0.17	93.0	6.2	150.0	55.3	1182.7	803.3	93.0	6.2
POR-2-99	174	9832	1.9	23.0454	11.1	0.0876	11.5	0.0146	2.9	0.25	93.8	2.7	85.3	9.4	-145.0	276.5	93.8	2.7
POR-2-63	318	25394	3.1	21.5315	3.2	0.0952	3.6	0.0149	1.5	0.42	95.1	1.4	92.3	3.1	20.7	77.6	95.1	1.4
POR-2-48	356	7762	2.7	21.6575	4.0	0.0948	4.1	0.0149	0.7	0.18	95.3	0.7	92.0	3.6	6.7	97.2	95.3	0.7
POR-2-42	402	4990	2.8	21.2849	4.5	0.0982	4.6	0.0152	0.7	0.15	97.0	0.6	95.1	4.2	48.3	108.6	97.0	0.6
POR-2-54	744	15682	3.4	20.9482	2.4	0.0999	2.6	0.0152	0.8	0.31	97.1	0.8	96.7	2.4	86.3	57.9	97.1	0.8
POR-2-44	752	13824	3.2	21.0182	1.8	0.1000	2.0	0.0152	0.8	0.40	97.5	0.8	96.7	1.9	78.3	43.8	97.5	0.8
POR-2-80	322	8876	3.4	21.2406	3.0	0.0990	3.1	0.0152	0.7	0.23	97.5	0.7	95.8	2.8	53.2	71.5	97.5	0.7
POR-2-46	404	7356	3.7	21.3698	3.7	0.0995	4.5	0.0154	2.7	0.59	98.6	2.6	96.3	4.2	38.8	87.4	98.6	2.6
POR-2-51	390	12172	2.2	21.6671	4.1	0.0982	4.3	0.0154	1.3	0.31	98.7	1.3	95.1	3.9	5.6	97.7	98.7	1.3
POR-2-95	663	18254	2.8	20.9214	2.2	0.1018	3.1	0.0155	2.2	0.71	98.9	2.2	98.5	2.9	89.3	51.7	98.9	2.2
POR-2-65	477	8970	3.5	21.1591	2.5	0.1016	2.9	0.0156	1.4	0.49	99.8	1.4	98.3	2.7	62.4	59.9	99.8	1.4
POR-2-77	383	8774	2.4	21.4066	2.8	0.1006	3.3	0.0156	1.8	0.54	99.9	1.8	97.4	3.1	34.7	66.7	99.9	1.8
POR-2-98	486	6906	3.0	21.2040	3.8	0.1016	4.0	0.0156	1.3	0.34	100.0	1.3	98.3	3.7	57.4	89.8	100.0	1.3

Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	Isotopic Ratios $^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-2-50	821	20052	3.1	21.3264	3.4	0.1011	3.6	0.0156	1.1	0.30	100.0	1.1	97.8	3.3	43.6	81.3	100.0	1.1
POR-2-23	734	2058	2.6	20.3901	5.5	0.1061	5.7	0.0157	1.7	0.29	100.4	1.7	102.4	5.6	149.9	128.1	100.4	1.7
POR-2-60	425	23792	2.2	21.3655	3.3	0.1016	3.6	0.0157	1.5	0.41	100.7	1.5	98.2	3.3	39.3	78.0	100.7	1.5
POR-2-91	657	16706	3.1	20.8199	1.5	0.1049	2.0	0.0158	1.3	0.65	101.3	1.3	101.3	1.9	100.8	35.8	101.3	1.3
POR-2-15	352	7620	2.2	21.6255	4.2	0.1014	4.6	0.0159	1.8	0.38	101.7	1.8	98.1	4.3	10.3	101.9	101.7	1.8
POR-2-6	639	8766	2.0	21.1694	5.6	0.1037	5.7	0.0159	0.8	0.13	101.9	0.8	100.2	5.4	61.3	134.6	101.9	0.8
POR-2-4	624	14834	2.6	20.7963	1.7	0.1078	2.1	0.0163	1.3	0.60	104.0	1.3	104.0	2.1	103.5	39.9	104.0	1.3
POR-2-25	476	4042	3.1	19.9519	2.0	0.1125	2.5	0.0163	1.5	0.60	104.1	1.5	108.2	2.5	200.6	45.8	104.1	1.5
POR-2-76	196	5912	2.3	21.7998	4.9	0.1031	5.0	0.0163	1.2	0.25	104.3	1.3	99.7	4.8	-9.1	118.0	104.3	1.3
POR-2-58	423	14108	3.6	21.0424	4.6	0.1070	4.7	0.0163	1.2	0.25	104.5	1.2	103.3	4.7	75.6	109.1	104.5	1.2
POR-2-86	203	7270	2.5	21.4030	4.6	0.1055	4.7	0.0164	0.6	0.12	104.8	0.6	101.9	4.5	35.0	110.9	104.8	0.6
POR-2-81	78	2722	1.9	23.2698	12.4	0.0974	12.5	0.0164	1.8	0.14	105.1	1.9	94.3	11.3	-169.1	308.9	105.1	1.9
POR-2-94	132	3814	2.5	21.6759	5.2	0.1045	5.5	0.0164	1.9	0.34	105.1	2.0	100.9	5.3	4.7	124.9	105.1	2.0
POR-2-43	300	12654	2.2	21.6043	4.5	0.1053	4.6	0.0165	0.8	0.18	105.5	0.9	101.6	4.5	12.6	109.1	105.5	0.9
POR-2-73	1269	29908	3.2	20.7935	1.0	0.1101	1.4	0.0166	1.0	0.71	106.2	1.0	106.1	1.4	103.8	22.7	106.2	1.0
POR-2-19	295	5098	1.3	21.3448	9.7	0.1076	9.8	0.0167	1.3	0.14	106.5	1.4	103.8	9.6	41.6	232.0	106.5	1.4
POR-2-17	103	7056	5.7	23.5336	13.0	0.0977	13.1	0.0167	1.1	0.08	106.7	1.1	94.7	11.8	-197.2	327.0	106.7	1.1
POR-2-2	507	1278	1.7	16.4433	12.7	0.1406	13.0	0.0168	2.6	0.20	107.2	2.8	133.5	16.2	632.7	274.2	107.2	2.8
POR-2-89	221	4938	2.4	21.8008	6.9	0.1072	7.3	0.0170	2.3	0.32	108.4	2.5	103.4	7.2	-9.2	167.4	108.4	2.5
POR-2-14	487	5646	2.5	20.7361	5.4	0.1128	5.7	0.0170	1.6	0.28	108.4	1.7	108.5	5.8	110.3	128.4	108.4	1.7
POR-2-71	547	12268	3.2	20.9114	2.1	0.1123	2.7	0.0170	1.7	0.64	108.8	1.9	108.0	2.8	90.4	49.4	108.8	1.9
POR-2-66	71	1846	3.1	24.4077	17.4	0.0967	17.5	0.0171	1.3	0.07	109.4	1.4	93.7	15.6	-289.4	446.9	109.4	1.4
POR-2-10	500	9860	1.8	21.3784	4.4	0.1108	4.4	0.0172	0.6	0.14	109.8	0.7	106.7	4.4	37.8	104.2	109.8	0.7
POR-2-8	776	8062	3.5	20.7905	1.9	0.1146	2.3	0.0173	1.3	0.56	110.4	1.4	110.2	2.4	104.1	45.0	110.4	1.4
POR-2-37	376	6026	2.6	21.3468	4.3	0.1118	4.9	0.0173	2.3	0.46	110.6	2.5	107.6	5.0	41.4	103.8	110.6	2.5
POR-2-88	178	5330	1.9	21.8288	6.7	0.1097	7.3	0.0174	2.8	0.39	111.0	3.1	105.7	7.3	-12.3	162.8	111.0	3.1
POR-2-24	156	1980	1.3	22.1017	18.3	0.1097	18.3	0.0176	0.5	0.03	112.3	0.6	105.7	18.4	-42.4	448.2	112.3	0.6
POR-2-79	512	6090	2.5	20.7165	3.5	0.1171	4.5	0.0176	2.7	0.61	112.5	3.0	112.5	4.7	112.6	83.4	112.5	3.0
POR-2-87	130	3032	2.6	22.3424	8.8	0.1087	9.2	0.0176	2.7	0.29	112.6	3.0	104.8	9.1	-68.8	215.0	112.6	3.0
POR-2-5	138	3422	2.6	22.6856	9.1	0.1071	9.1	0.0176	0.6	0.07	112.6	0.7	103.3	9.0	-106.2	224.0	112.6	0.7
POR-2-39	126	630	1.2	19.1074	10.8	0.1282	10.8	0.0178	1.0	0.09	113.6	1.1	122.5	12.5	300.1	246.6	113.6	1.1
POR-2-100	177	2936	2.6	22.4814	8.1	0.1092	8.7	0.0178	3.1	0.35	113.8	3.5	105.2	8.7	-84.0	198.6	113.8	3.5
POR-2-59	260	5166	2.0	21.4925	10.4	0.1147	10.5	0.0179	0.8	0.08	114.3	0.9	110.3	10.9	25.1	250.9	114.3	0.9
POR-2-93	142	3030	1.9	23.6338	14.5	0.1053	14.5	0.0181	1.5	0.10	115.3	1.7	101.7	14.1	-207.9	364.7	115.3	1.7
POR-2-75	548	17544	7.4	20.7931	2.0	0.1255	2.6	0.0189	1.6	0.64	120.9	2.0	120.1	2.9	103.8	46.9	120.9	2.0
POR-2-26	1717	34504	4.6	21.0836	4.4	0.1251	4.4	0.0191	0.8	0.19	122.1	1.0	119.6	5.0	70.9	103.5	122.1	1.0
POR-2-69	593	27482	2.7	21.0382	3.7	0.1268	3.8	0.0193	0.7	0.19	123.5	0.9	121.2	4.3	76.1	88.7	123.5	0.9
POR-2-32	79	2472	5.0	24.2908	17.4	0.1104	17.5	0.0195	1.8	0.10	124.2	2.3	106.4	17.6	-277.2	444.3	124.2	2.3

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$\frac{^{206}Pb}{^{204}Pb}$	U/Th	$\frac{^{206}Pb*}{^{207}Pb*}$	± (%)	$\frac{^{207}Pb*}{^{235}U}$	± (%)	$\frac{^{206}Pb*}{^{238}U}$	± (%)	error corr.	$\frac{^{206}Pb*}{^{238}U}$	± Ma	$\frac{^{207}Pb*}{^{235}U}$	± Ma	$\frac{^{206}Pb*}{^{207}Pb*}$	± Ma	Best age†	± Ma
POR-2-47	158	8484	4.2	21.6053	6.2	0.1406	6.6	0.0220	2.0	0.31	140.5	2.8	133.6	8.2	12.5	150.1	140.5	2.8
POR-2-29	48	2568	2.6	27.7709	28.4	0.1094	28.4	0.0220	1.9	0.07	140.6	2.6	105.5	28.5	-630.2	788.4	140.6	2.6
POR-2-62	327	15990	2.4	20.7630	2.8	0.1601	3.0	0.0241	1.1	0.37	153.6	1.7	150.8	4.2	107.3	65.2	153.6	1.7
POR-2-35	1479	44660	16.1	20.0973	0.9	0.1759	1.4	0.0256	1.1	0.78	163.2	1.8	164.5	2.2	183.7	20.6	163.2	1.8
POR-2-55	421	13644	1.9	20.3247	1.8	0.1756	2.1	0.0259	1.0	0.48	164.8	1.7	164.3	3.2	157.4	43.3	164.8	1.7
POR-2-40	227	18678	4.6	20.5748	2.5	0.1760	3.2	0.0263	2.1	0.64	167.2	3.4	164.7	4.9	128.8	58.9	167.2	3.4
POR-2-22	725	24042	2.0	20.0205	1.0	0.1814	2.3	0.0263	2.1	0.90	167.6	3.4	169.3	3.6	192.6	22.8	167.6	3.4
POR-2-21	213	8552	2.9	20.4469	2.6	0.1819	3.0	0.0270	1.4	0.48	171.6	2.4	169.7	4.6	143.4	61.2	171.6	2.4
POR-2-67	552	2790	3.5	14.2825	21.7	0.2610	21.8	0.0270	1.0	0.05	172.0	1.8	235.5	45.7	928.8	451.2	172.0	1.8
POR-2-20	274	11154	3.4	20.0105	1.2	0.1944	3.3	0.0282	3.1	0.93	179.4	5.4	180.4	5.4	193.8	27.9	179.4	5.4
POR-2-11	49	1264	3.0	20.6311	15.1	0.2376	15.2	0.0355	2.0	0.13	225.2	4.4	216.4	29.6	122.3	356.4	225.2	4.4
POR-2-18	812	118562	11.6	11.7169	1.7	2.6123	2.9	0.2220	2.4	0.82	1292.4	28.5	1304.1	21.7	1323.4	32.4	1323.4	32.4
POR-2-68	1395	198100	9.8	11.3969	0.8	2.7531	0.9	0.2276	0.5	0.56	1321.7	6.2	1342.9	6.9	1376.9	14.6	1376.9	14.6
POR-2-70	278	66740	5.0	11.3748	1.2	2.5728	6.1	0.2122	6.0	0.98	1240.8	67.4	1292.9	44.5	1380.6	22.9	1380.6	22.9
POR-2-31	232	16890	5.5	11.3034	1.3	1.1218	5.2	0.0920	5.1	0.97	567.2	27.5	763.9	28.0	1392.7	24.9	1392.7	24.9
POR-2-13	34	18928	3.0	10.9228	2.1	3.1967	2.7	0.2532	1.6	0.60	1455.2	21.2	1456.4	20.9	1458.1	40.9	1458.1	40.9
POR-2-3	112	35782	1.7	10.6319	1.5	3.4626	1.6	0.2670	0.5	0.32	1525.5	6.8	1518.7	12.3	1509.2	27.9	1509.2	27.9
POR-2-45	179	50380	2.8	10.1239	0.9	2.8491	2.7	0.2092	2.5	0.94	1224.6	28.0	1368.6	20.1	1601.1	17.0	1601.1	17.0
POR-2-27	1583	54868	3.2	9.6607	1.0	4.2560	3.3	0.2982	3.1	0.95	1682.4	46.5	1684.9	27.1	1688.0	18.3	1688.0	18.3
POR-2-12	219	100326	4.3	9.5672	1.1	3.7010	6.8	0.2568	6.7	0.99	1473.5	88.1	1571.6	54.2	1705.9	19.9	1705.9	19.9
POR-2-92	207	91948	3.7	9.2906	0.8	4.6210	1.5	0.3114	1.2	0.84	1747.5	19.0	1753.1	12.3	1759.7	14.5	1759.7	14.5
POR-2-16	780	13792	3.0	7.2071	6.2	1.6682	9.8	0.0872	7.6	0.78	539.0	39.5	996.5	62.4	2211.7	107.3	2211.7	107.3
POR-2-97	128	73282	3.2	6.2027	1.5	9.9712	1.8	0.4486	1.1	0.60	2388.9	21.6	2432.1	16.7	2468.5	24.5	2468.5	24.5
POR-3-98	266	3048	1.0	21.4097	25.1	0.0453	29.4	0.0070	15.3	0.52	45.1	6.9	44.9	12.9	34.3	610.4	45.1	6.9
POR-3-95	558	7519	3.4	20.9765	16.9	0.0874	17.3	0.0133	3.7	0.22	85.2	3.1	85.1	14.1	83.0	402.3	85.2	3.1
POR-3-59	1122	19355	1.2	20.3630	3.1	0.0919	3.8	0.0136	2.1	0.55	86.9	1.8	89.2	3.2	153.0	73.7	86.9	1.8
POR-3-30	847	17856	1.8	21.1424	8.5	0.0895	8.7	0.0137	1.7	0.20	87.9	1.5	87.1	7.2	64.3	202.8	87.9	1.5
POR-3-26	860	16738	1.2	20.0615	7.5	0.0950	8.1	0.0138	3.2	0.39	88.5	2.8	92.1	7.2	187.8	174.9	88.5	2.8
POR-3-7	262	7899	2.1	22.4450	26.0	0.0854	26.3	0.0139	4.4	0.17	89.0	3.9	83.2	21.1	-80.0	645.0	89.0	3.9
POR-3-14	693	8493	1.1	22.3244	10.9	0.0862	12.0	0.0140	4.9	0.41	89.3	4.4	83.9	9.6	-66.8	266.7	89.3	4.4
POR-3-24	1214	11937	1.7	21.2397	4.5	0.0911	5.0	0.0140	2.3	0.46	89.9	2.1	88.6	4.3	53.3	106.9	89.9	2.1
POR-3-29	805	15227	2.8	20.3497	6.1	0.0953	7.2	0.0141	3.8	0.53	90.0	3.4	92.4	6.3	154.5	143.0	90.0	3.4
POR-3-74	520	15628	1.5	23.1539	8.4	0.0840	8.7	0.0141	2.2	0.25	90.3	2.0	81.9	6.9	-156.7	209.7	90.3	2.0
POR-3-96	1180	14945	1.2	19.9709	4.4	0.0974	4.9	0.0141	2.2	0.44	90.3	1.9	94.4	4.4	198.4	102.3	90.3	1.9
POR-3-57	620	9137	2.2	20.2161	9.5	0.0966	9.7	0.0142	2.2	0.22	90.7	1.9	93.6	8.7	169.9	221.4	90.7	1.9
POR-3-25	403	16556	2.4	21.4138	13.7	0.0916	14.2	0.0142	3.7	0.26	91.0	3.4	89.0	12.1	33.8	328.5	91.0	3.4
POR-3-2	1782	20827	1.7	20.6333	2.1	0.0955	2.3	0.0143	0.9	0.41	91.5	0.8	92.6	2.0	122.0	48.5	91.5	0.8

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-3-77	1659	40874	2.0	20.2355	3.1	0.0978	3.7	0.0144	2.1	0.56	91.9	1.9	94.7	3.3	167.7	71.7	91.9	1.9
POR-3-5	704	17760	2.6	21.9078	8.7	0.0904	8.8	0.0144	1.4	0.16	92.0	1.3	87.9	7.4	-21.0	211.4	92.0	1.3
POR-3-101	440	7883	1.1	20.9295	15.2	0.0947	15.4	0.0144	2.6	0.17	92.0	2.4	91.9	13.5	88.4	361.8	92.0	2.4
POR-3-12	853	26155	1.7	20.8335	3.7	0.0952	4.2	0.0144	2.0	0.47	92.0	1.8	92.3	3.7	99.3	88.0	92.0	1.8
POR-3-53	900	35045	1.7	21.6027	5.2	0.0926	6.0	0.0145	3.0	0.49	92.9	2.7	89.9	5.2	12.8	126.1	92.9	2.7
POR-3-88	353	12973	1.9	24.5687	25.2	0.0814	25.5	0.0145	3.6	0.14	92.9	3.4	79.5	19.5	-306.2	653.3	92.9	3.4
POR-3-80	215	5092	1.3	24.8556	17.8	0.0805	19.2	0.0145	7.3	0.38	92.9	6.8	78.6	14.6	-336.0	461.0	92.9	6.8
POR-3-37	583	14556	2.2	20.7560	8.6	0.0967	8.8	0.0146	1.4	0.16	93.2	1.3	93.7	7.8	108.1	204.6	93.2	1.3
POR-3-22	1930	43642	1.7	21.3590	3.0	0.0941	3.3	0.0146	1.3	0.40	93.3	1.2	91.3	2.9	40.0	71.6	93.3	1.2
POR-3-47	266	3390	2.0	25.2460	16.1	0.0796	17.0	0.0146	5.4	0.32	93.3	5.0	77.8	12.7	-376.3	420.2	93.3	5.0
POR-3-15	338	12324	1.1	21.2319	22.8	0.0952	23.0	0.0147	3.0	0.13	93.9	2.8	92.4	20.3	54.2	549.9	93.9	2.8
POR-3-86	411	6693	1.7	20.9177	10.2	0.0969	10.6	0.0147	3.0	0.28	94.0	2.8	93.9	9.5	89.7	241.5	94.0	2.8
POR-3-73	1508	55875	1.6	20.6093	3.4	0.0984	3.8	0.0147	1.8	0.48	94.1	1.7	95.3	3.5	124.8	79.1	94.1	1.7
POR-3-103	383	21817	2.7	23.5359	22.3	0.0866	22.9	0.0148	5.3	0.23	94.6	5.0	84.4	18.6	-197.5	564.2	94.6	5.0
POR-3-45	270	5137	2.4	19.9552	22.6	0.1023	22.8	0.0148	3.0	0.13	94.7	2.9	98.9	21.4	200.2	529.7	94.7	2.9
POR-3-27	525	6690	2.6	22.5978	9.9	0.0908	10.5	0.0149	3.5	0.33	95.3	3.3	88.3	8.9	-96.6	243.7	95.3	3.3
POR-3-23	450	10683	2.4	21.5783	14.0	0.0952	14.3	0.0149	3.1	0.22	95.3	2.9	92.3	12.7	15.5	337.8	95.3	2.9
POR-3-84	980	16347	1.5	21.3613	4.7	0.0964	5.0	0.0149	1.8	0.36	95.5	1.7	93.4	4.5	39.7	112.7	95.5	1.7
POR-3-104	691	11284	2.8	21.3867	9.3	0.0969	9.6	0.0150	2.7	0.28	96.2	2.6	93.9	8.7	36.9	222.1	96.2	2.6
POR-3-10	642	14223	1.9	21.4334	6.2	0.0969	6.6	0.0151	2.1	0.32	96.3	2.0	93.9	5.9	31.7	149.6	96.3	2.0
POR-3-55	673	28035	1.0	21.4758	7.5	0.0971	7.9	0.0151	2.7	0.34	96.7	2.6	94.1	7.1	26.9	179.1	96.7	2.6
POR-3-51	875	16934	2.3	21.2406	5.2	0.0987	5.6	0.0152	2.0	0.36	97.3	2.0	95.6	5.1	53.2	125.0	97.3	2.0
POR-3-67	261	6039	1.5	20.5056	24.3	0.1024	24.7	0.0152	4.0	0.16	97.4	3.9	98.9	23.3	136.6	579.1	97.4	3.9
POR-3-44	705	44988	2.2	20.9856	7.4	0.1001	7.5	0.0152	1.3	0.17	97.5	1.2	96.8	6.9	82.0	175.3	97.5	1.2
POR-3-75	2018	43889	2.3	20.8262	2.0	0.1011	4.0	0.0153	3.4	0.86	97.7	3.3	97.8	3.7	100.1	47.3	97.7	3.3
POR-3-35	337	5422	1.4	22.4351	17.8	0.0942	18.0	0.0153	2.9	0.16	98.1	2.8	91.4	15.7	-78.9	437.7	98.1	2.8
POR-3-85	512	12846	0.8	21.3947	9.1	0.1009	10.0	0.0157	3.9	0.40	100.1	3.9	97.6	9.3	36.0	219.2	100.1	3.9
POR-3-39	386	5217	2.8	20.6381	8.1	0.1048	8.7	0.0157	3.3	0.38	100.3	3.3	101.2	8.4	121.5	191.1	100.3	3.3
POR-3-63	436	9924	2.7	21.3599	10.6	0.1016	11.0	0.0157	2.8	0.26	100.7	2.8	98.3	10.3	39.9	254.6	100.7	2.8
POR-3-50	745	11518	2.3	19.9210	10.1	0.1094	10.7	0.0158	3.5	0.33	101.1	3.6	105.4	10.7	204.2	234.8	101.1	3.6
POR-3-97	1493	90127	1.5	20.5023	2.1	0.1070	2.6	0.0159	1.5	0.57	101.8	1.5	103.2	2.5	137.1	49.6	101.8	1.5
POR-3-11	121	5836	2.4	20.9323	39.9	0.1052	41.8	0.0160	12.7	0.30	102.1	12.9	101.6	40.5	88.1	980.0	102.1	12.9
POR-3-58	818	22219	1.9	22.2465	6.9	0.0992	7.4	0.0160	2.5	0.34	102.4	2.5	96.1	6.7	-58.3	168.8	102.4	2.5
POR-3-52	158	4372	2.8	24.5107	35.9	0.0901	37.5	0.0160	10.9	0.29	102.5	11.1	87.6	31.5	-300.2	942.3	102.5	11.1
POR-3-78	423	13958	2.8	19.7159	8.0	0.1121	8.2	0.0160	2.0	0.24	102.5	2.0	107.8	8.4	228.2	185.0	102.5	2.0
POR-3-90	273	7781	1.5	23.3555	44.0	0.0948	44.2	0.0161	3.8	0.08	102.7	3.8	91.9	38.9	-178.2	#####	102.7	3.8
POR-3-79	130	2840	2.0	22.1091	50.2	0.1010	50.7	0.0162	7.1	0.14	103.5	7.3	97.7	47.2	-43.2	#####	103.5	7.3
POR-3-42	1379	6372	1.9	19.4446	5.1	0.1149	6.6	0.0162	4.1	0.63	103.6	4.2	110.4	6.9	260.1	116.9	103.6	4.2

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-3-60	223	5635	1.6	24.8950	40.2	0.0898	41.6	0.0162	10.7	0.26	103.7	11.1	87.3	34.8	-340.1	#####	103.7	11.1
POR-3-100	1694	52473	2.6	21.0854	2.3	0.1066	3.1	0.0163	2.1	0.66	104.2	2.1	102.8	3.1	70.7	55.7	104.2	2.1
POR-3-16	352	8452	1.5	22.3290	13.8	0.1013	14.0	0.0164	2.0	0.15	104.9	2.1	97.9	13.0	-67.3	338.5	104.9	2.1
POR-3-93	529	11873	2.3	23.1984	13.4	0.0981	13.5	0.0165	1.6	0.12	105.5	1.7	95.0	12.2	-161.4	333.9	105.5	1.7
POR-3-28	1017	28517	2.6	19.9568	4.1	0.1144	4.7	0.0166	2.2	0.47	105.8	2.3	110.0	4.9	200.0	96.4	105.8	2.3
POR-3-32	405	10754	1.5	21.6803	16.5	0.1054	16.7	0.0166	2.6	0.16	106.0	2.8	101.8	16.2	4.2	399.6	106.0	2.8
POR-3-17	199	6435	1.6	17.7750	13.0	0.1293	13.6	0.0167	4.2	0.31	106.6	4.4	123.5	15.9	462.6	288.7	106.6	4.4
POR-3-68	542	21935	6.9	21.9741	10.7	0.1049	11.1	0.0167	3.0	0.27	106.9	3.2	101.3	10.7	-28.4	259.6	106.9	3.2
POR-3-70	479	14548	1.6	21.6751	10.8	0.1066	10.8	0.0168	0.8	0.08	107.2	0.9	102.9	10.6	4.7	260.7	107.2	0.9
POR-3-61	392	5329	4.3	26.2959	11.3	0.0887	12.0	0.0169	4.1	0.34	108.2	4.4	86.3	9.9	-483.2	299.5	108.2	4.4
POR-3-8	145	5652	1.4	20.1940	28.1	0.1158	28.5	0.0170	5.1	0.18	108.4	5.5	111.2	30.1	172.5	666.4	108.4	5.5
POR-3-33	108	3898	1.9	18.2276	18.9	0.1285	20.0	0.0170	6.4	0.32	108.6	6.9	122.8	23.1	406.6	426.3	108.6	6.9
POR-3-82	651	23729	1.9	20.3824	6.4	0.1195	6.7	0.0177	1.9	0.28	112.9	2.1	114.6	7.2	150.8	150.2	112.9	2.1
POR-3-19	220	11621	2.8	23.1535	24.0	0.1053	25.2	0.0177	7.5	0.30	113.0	8.4	101.6	24.3	-156.6	604.2	113.0	8.4
POR-3-1	712	12254	1.8	20.2142	6.6	0.1216	6.6	0.0178	1.1	0.17	113.9	1.2	116.5	7.3	170.1	153.2	113.9	1.2
POR-3-102	328	9041	3.7	20.9663	12.9	0.1176	13.1	0.0179	2.5	0.19	114.3	2.8	112.9	14.0	84.2	307.2	114.3	2.8
POR-3-76	253	7616	1.8	21.0327	10.2	0.1177	10.8	0.0179	3.5	0.32	114.7	4.0	113.0	11.5	76.7	243.3	114.7	4.0
POR-3-87	2281	91299	2.3	20.4372	1.0	0.1224	1.9	0.0181	1.5	0.83	115.9	1.8	117.3	2.1	144.5	24.6	115.9	1.8
POR-3-83	792	14101	2.5	20.4241	5.5	0.1226	6.0	0.0182	2.4	0.39	116.0	2.7	117.4	6.7	146.0	130.0	116.0	2.7
POR-3-43	68	1579	1.6	13.0426	29.1	0.1983	31.5	0.0188	11.9	0.38	119.8	14.1	183.7	52.9	1112.7	593.9	119.8	14.1
POR-3-105	96	1987	2.1	40.1987	85.1	0.0646	86.0	0.0188	12.2	0.14	120.2	14.5	63.5	53.0	-1776.4	#####	120.2	14.5
POR-3-71	304	9518	2.2	20.7084	14.2	0.1260	14.5	0.0189	2.7	0.19	120.8	3.2	120.5	16.5	113.5	337.5	120.8	3.2
POR-3-92	445	8395	2.7	20.2334	9.3	0.1296	9.4	0.0190	1.6	0.17	121.4	1.9	123.7	11.0	167.9	217.7	121.4	1.9
POR-3-41	1302	42530	2.4	20.5215	1.6	0.1281	3.1	0.0191	2.7	0.86	121.7	3.2	122.4	3.6	134.8	36.6	121.7	3.2
POR-3-48	167	8676	1.4	21.7231	17.5	0.1219	17.9	0.0192	3.8	0.21	122.6	4.6	116.8	19.8	-0.6	425.3	122.6	4.6
POR-3-4	151	6849	2.2	20.8459	22.4	0.1279	24.5	0.0193	9.9	0.40	123.5	12.1	122.2	28.2	97.9	536.2	123.5	12.1
POR-3-72	223	7989	1.5	24.4160	17.9	0.1109	19.0	0.0196	6.3	0.33	125.4	7.8	106.8	19.3	-290.3	460.5	125.4	7.8
POR-3-9	215	8033	1.5	21.5960	17.5	0.1269	17.9	0.0199	3.6	0.20	126.9	4.5	121.3	20.4	13.5	423.2	126.9	4.5
POR-3-3	372	9212	1.6	19.6838	13.4	0.1444	16.1	0.0206	8.8	0.55	131.5	11.5	137.0	20.6	231.9	311.4	131.5	11.5
POR-3-46	95	2093	1.4	17.0541	24.6	0.1698	26.3	0.0210	9.3	0.35	134.0	12.3	159.2	38.8	553.7	545.3	134.0	12.3
POR-3-91	88	4020	2.4	20.2690	41.6	0.1504	42.1	0.0221	6.3	0.15	141.0	8.8	142.3	55.9	163.8	#####	141.0	8.8
POR-3-49	190	6009	2.1	22.3893	26.6	0.1374	27.2	0.0223	5.7	0.21	142.2	8.1	130.7	33.3	-73.9	659.1	142.2	8.1
POR-3-34	95	2324	4.1	29.7072	38.7	0.1039	40.1	0.0224	10.5	0.26	142.8	14.8	100.4	38.3	-818.4	#####	142.8	14.8
POR-3-13	91	5585	1.6	21.6908	28.1	0.1441	31.0	0.0227	13.0	0.42	144.5	18.7	136.7	39.7	3.0	689.7	144.5	18.7
POR-3-54	127	4832	3.1	22.9418	21.4	0.1387	21.8	0.0231	3.9	0.18	147.1	5.6	131.9	27.0	-133.9	535.7	147.1	5.6
POR-3-36	110	1903	2.0	23.1300	25.7	0.1382	28.5	0.0232	12.2	0.43	147.8	17.8	131.5	35.1	-154.1	648.0	147.8	17.8
POR-3-31	190	11051	1.1	24.7404	19.9	0.1300	20.4	0.0233	4.4	0.22	148.7	6.5	124.1	23.8	-324.0	514.9	148.7	6.5
POR-3-18	78	2877	1.0	32.8982	57.6	0.1013	58.5	0.0242	10.1	0.17	154.0	15.4	98.0	54.7	-1118.7	#####	154.0	15.4

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-3-21	496	17629	1.4	21.1214	7.6	0.1631	7.8	0.0250	1.8	0.23	159.0	2.8	153.4	11.1	66.7	180.5	159.0	2.8
POR-3-64	171	7272	1.4	25.4483	20.4	0.1377	22.0	0.0254	8.1	0.37	161.8	12.9	131.0	27.0	-397.0	537.5	161.8	12.9
POR-3-69	211	5616	2.1	24.8727	13.8	0.1411	14.2	0.0255	3.4	0.24	162.1	5.4	134.0	17.8	-337.8	356.0	162.1	5.4
POR-3-40	227	15659	2.0	20.2765	15.9	0.1811	16.2	0.0266	3.0	0.19	169.5	5.0	169.0	25.2	163.0	373.6	169.5	5.0
POR-3-89	351	10972	2.6	20.0766	8.0	0.1895	8.1	0.0276	1.5	0.18	175.5	2.6	176.2	13.1	186.1	186.1	175.5	2.6
POR-3-81	271	4711	1.7	19.1805	11.4	0.2277	12.8	0.0317	5.9	0.46	201.1	11.7	208.3	24.2	291.4	261.1	201.1	11.7
POR-3-56	1773	78793	2.5	19.7457	1.6	0.2446	1.7	0.0350	0.7	0.42	222.0	1.6	222.2	3.5	224.7	36.3	222.0	1.6
POR-3-38	73	29449	1.8	9.2529	1.4	4.6478	2.0	0.3119	1.4	0.69	1750.1	20.9	1757.9	16.6	1767.2	26.3	1767.2	26.3
POR-3-6	491	395434	2.1	9.2403	0.3	4.5664	1.2	0.3060	1.1	0.98	1721.1	17.4	1743.2	9.8	1769.7	4.7	1769.7	4.7
POR-3-99	152	58124	1.2	9.2294	0.8	4.5651	1.4	0.3056	1.1	0.80	1718.9	16.5	1742.9	11.4	1771.8	15.1	1771.8	15.1
POR-3-66	468	14235	1.9	4.0123	0.5	17.1527	9.7	0.4991	9.7	1.00	2610.1	208.4	2943.4	93.5	3179.9	7.3	3179.9	7.3
BUT-5-7	193	3367	0.8	17.3540	19.6	0.0992	20.4	0.0125	5.7	0.28	80.0	4.6	96.0	18.7	515.5	433.3	80.0	4.6
BUT-5-34	245	5912	1.4	27.4641	29.4	0.0633	30.1	0.0126	6.4	0.21	80.7	5.2	62.3	18.2	-599.9	812.6	80.7	5.2
BUT-5-42	844	12878	1.4	20.2150	6.8	0.0876	7.0	0.0128	1.7	0.24	82.3	1.4	85.3	5.8	170.1	159.7	82.3	1.4
BUT-5-99	442	12887	2.2	21.7572	9.8	0.0848	11.7	0.0134	6.3	0.54	85.7	5.4	82.6	9.3	-4.4	237.0	85.7	5.4
BUT-5-96	665	17206	1.0	21.1388	6.7	0.0884	6.8	0.0136	1.6	0.24	86.8	1.4	86.0	5.6	64.7	158.6	86.8	1.4
BUT-5-97	460	5663	2.6	21.6653	7.6	0.0888	7.9	0.0139	2.2	0.27	89.3	1.9	86.3	6.6	5.8	184.1	89.3	1.9
BUT-5-68	404	22082	1.9	21.1756	11.0	0.0909	13.0	0.0140	6.9	0.53	89.4	6.2	88.4	11.0	60.6	263.5	89.4	6.2
BUT-5-47	1053	31603	1.6	22.3346	5.5	0.0869	6.6	0.0141	3.6	0.54	90.1	3.2	84.6	5.4	-67.9	135.6	90.1	3.2
BUT-5-36	212	9192	1.2	20.3748	9.6	0.0957	11.0	0.0141	5.4	0.49	90.5	4.8	92.8	9.8	151.7	225.8	90.5	4.8
BUT-5-88	359	11407	1.0	20.8249	13.2	0.0937	13.6	0.0142	3.1	0.23	90.6	2.8	91.0	11.8	100.2	313.6	90.6	2.8
BUT-5-31	920	53834	2.7	21.2045	3.7	0.0929	3.9	0.0143	0.9	0.23	91.4	0.8	90.2	3.3	57.3	89.4	91.4	0.8
BUT-5-54	841	23114	2.2	21.4469	6.4	0.0923	7.8	0.0144	4.4	0.56	91.9	4.0	89.6	6.7	30.2	153.9	91.9	4.0
BUT-5-67	445	10638	2.0	21.3818	9.0	0.0926	9.4	0.0144	2.6	0.27	91.9	2.3	89.9	8.1	37.4	216.5	91.9	2.3
BUT-5-38	370	5933	1.0	23.2046	11.9	0.0863	13.5	0.0145	6.5	0.48	92.9	6.0	84.0	10.9	-162.1	295.9	92.9	6.0
BUT-5-26	315	12144	1.8	23.5230	24.3	0.0854	24.6	0.0146	4.0	0.16	93.2	3.7	83.2	19.7	-196.1	616.2	93.2	3.7
BUT-5-20	268	4451	1.7	18.7615	20.1	0.1076	20.4	0.0146	3.7	0.18	93.7	3.4	103.8	20.1	341.6	458.6	93.7	3.4
BUT-5-100	253	9478	1.8	18.4559	20.9	0.1101	21.1	0.0147	3.3	0.16	94.3	3.1	106.0	21.3	378.7	474.3	94.3	3.1
BUT-5-105	225	7166	1.6	20.5090	27.1	0.0993	27.3	0.0148	3.4	0.12	94.5	3.2	96.1	25.1	136.2	647.4	94.5	3.2
BUT-5-28	282	7929	1.0	24.9902	26.1	0.0818	26.3	0.0148	3.0	0.11	94.9	2.8	79.8	20.2	-349.9	683.1	94.9	2.8
BUT-5-23	493	12854	0.9	21.4686	11.4	0.0959	11.9	0.0149	3.3	0.28	95.5	3.1	93.0	10.5	27.8	274.2	95.5	3.1
BUT-5-46	359	6472	1.0	23.8367	16.3	0.0867	18.1	0.0150	7.9	0.44	95.9	7.6	84.4	14.7	-229.4	411.9	95.9	7.6
BUT-5-39	876	25319	1.2	20.7822	6.2	0.0995	6.5	0.0150	1.9	0.30	95.9	1.8	96.3	5.9	105.1	145.9	95.9	1.8
BUT-5-27	503	12107	0.6	22.5286	11.0	0.0923	11.7	0.0151	3.9	0.33	96.5	3.7	89.6	10.0	-89.1	271.4	96.5	3.7
BUT-5-18	273	10400	0.8	20.0065	13.2	0.1045	13.7	0.0152	3.5	0.25	97.0	3.3	100.9	13.2	194.3	309.0	97.0	3.3
BUT-5-81	515	18868	0.8	20.3190	10.2	0.1029	10.6	0.0152	2.9	0.27	97.1	2.7	99.5	10.1	158.1	239.7	97.1	2.7
BUT-5-94	516	8547	2.5	20.4802	10.8	0.1029	12.6	0.0153	6.6	0.52	97.8	6.4	99.5	12.0	139.6	254.0	97.8	6.4

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
BUT-5-104	445	11604	1.9	21.2542	14.4	0.0992	14.6	0.0153	2.6	0.18	97.8	2.5	96.0	13.4	51.7	344.5	97.8	2.5
BUT-5-90	1070	33430	2.6	20.8549	3.8	0.1029	4.0	0.0156	1.0	0.25	99.5	1.0	99.4	3.8	96.8	90.9	99.5	1.0
BUT-5-102	419	8761	1.3	21.4249	11.3	0.1006	11.4	0.0156	1.3	0.12	99.9	1.3	97.3	10.5	32.6	271.0	99.9	1.3
BUT-5-75	321	7118	1.0	21.8591	11.0	0.0994	11.3	0.0158	2.9	0.25	100.8	2.9	96.2	10.4	-15.6	265.4	100.8	2.9
BUT-5-48	573	19188	2.4	21.9503	9.4	0.1016	9.8	0.0162	3.0	0.31	103.4	3.1	98.2	9.2	-25.7	227.3	103.4	3.1
BUT-5-78	2635	1810	1.8	19.2963	13.9	0.1158	15.5	0.0162	6.8	0.44	103.6	7.0	111.3	16.3	277.6	318.6	103.6	7.0
BUT-5-53	733	31745	0.9	20.8821	4.6	0.1097	5.2	0.0166	2.5	0.47	106.2	2.6	105.7	5.3	93.8	109.4	106.2	2.6
BUT-5-86	2009	2171	2.4	18.9387	12.5	0.1215	12.6	0.0167	1.6	0.13	106.7	1.7	116.4	13.9	320.3	285.5	106.7	1.7
BUT-5-85	187	6701	0.8	19.6027	19.7	0.1190	19.9	0.0169	2.8	0.14	108.2	3.0	114.2	21.5	241.4	458.8	108.2	3.0
BUT-5-10	437	12737	0.9	20.5635	9.2	0.1137	12.5	0.0170	8.5	0.68	108.4	9.1	109.4	13.0	130.0	217.4	108.4	9.1
BUT-5-77	291	10268	2.7	20.6145	13.9	0.1139	14.6	0.0170	4.4	0.30	108.9	4.7	109.6	15.1	124.2	328.3	108.9	4.7
BUT-5-61	418	9844	2.2	22.8201	9.0	0.1062	9.2	0.0176	2.0	0.22	112.3	2.3	102.5	9.0	-120.7	221.5	112.3	2.3
BUT-5-92	992	53329	2.3	20.2393	2.7	0.1201	3.0	0.0176	1.3	0.45	112.7	1.5	115.2	3.2	167.2	62.0	112.7	1.5
BUT-5-9	1429	29220	1.7	20.6583	2.2	0.1219	2.8	0.0183	1.8	0.64	116.7	2.1	116.8	3.1	119.2	51.6	116.7	2.1
BUT-5-32	394	10673	1.5	20.0712	13.6	0.1394	16.8	0.0203	9.9	0.59	129.5	12.7	132.5	20.9	186.7	316.8	129.5	12.7
BUT-5-50	1116	55140	2.5	20.6247	2.0	0.1366	3.9	0.0204	3.3	0.86	130.4	4.3	130.0	4.7	123.0	46.9	130.4	4.3
BUT-5-25	222	6597	0.9	21.0154	13.2	0.1453	13.8	0.0221	4.2	0.30	141.2	5.9	137.8	17.8	78.6	313.9	141.2	5.9
BUT-5-64	325	8558	1.1	21.3686	7.4	0.1450	7.9	0.0225	2.7	0.34	143.3	3.8	137.5	10.1	38.9	177.8	143.3	3.8
BUT-5-6	158	4471	0.8	20.1368	19.3	0.1554	19.6	0.0227	3.4	0.18	144.6	4.9	146.6	26.8	179.1	453.7	144.6	4.9
BUT-5-83	408	17607	0.5	20.5443	5.9	0.1531	7.6	0.0228	4.7	0.62	145.4	6.8	144.6	10.2	132.2	139.0	145.4	6.8
BUT-5-19	100	4335	1.0	23.8173	39.0	0.1338	39.7	0.0231	7.4	0.19	147.2	10.8	127.5	47.6	-227.3	#####	147.2	10.8
BUT-5-98	101	3315	0.8	24.4827	13.3	0.1320	15.2	0.0234	7.4	0.48	149.3	10.9	125.9	18.0	-297.2	341.5	149.3	10.9
BUT-5-30	45	1396	1.3	11.5391	155.8	0.2830	156.1	0.0237	8.8	0.06	150.9	13.1	253.0	364.4	1353.0	400.1	150.9	13.1
BUT-5-24	213	4332	0.5	18.2754	12.1	0.1791	13.3	0.0237	5.5	0.41	151.3	8.2	167.3	20.5	400.7	271.8	151.3	8.2
BUT-5-12	222	17090	0.8	21.3791	11.7	0.1559	12.9	0.0242	5.4	0.42	154.0	8.3	147.1	17.7	37.7	281.4	154.0	8.3
BUT-5-55	88	1998	1.5	16.4538	31.3	0.2037	31.8	0.0243	5.8	0.18	154.8	8.9	188.2	54.7	631.3	689.9	154.8	8.9
BUT-5-29	250	14415	1.0	19.8552	15.8	0.1702	16.2	0.0245	3.5	0.22	156.1	5.5	159.6	24.0	211.8	368.8	156.1	5.5
BUT-5-56	309	11854	1.5	20.8189	9.4	0.1634	9.6	0.0247	1.8	0.19	157.1	2.8	153.7	13.6	100.9	222.6	157.1	2.8
BUT-5-45	154	7450	1.2	19.2219	20.0	0.1773	20.1	0.0247	1.7	0.09	157.4	2.7	165.8	30.7	286.5	461.4	157.4	2.7
BUT-5-65	249	10810	1.3	21.0966	10.0	0.1618	11.1	0.0248	4.7	0.43	157.6	7.4	152.2	15.7	69.5	238.7	157.6	7.4
BUT-5-73	266	16826	1.3	20.6929	10.0	0.1659	10.5	0.0249	3.0	0.29	158.5	4.7	155.8	15.1	115.3	237.4	158.5	4.7
BUT-5-70	219	7323	1.0	21.0734	15.0	0.1633	16.0	0.0250	5.4	0.34	158.9	8.6	153.5	22.8	72.1	359.2	158.9	8.6
BUT-5-41	618	28393	0.9	20.8119	4.9	0.1662	5.3	0.0251	2.1	0.40	159.8	3.4	156.2	7.7	101.7	115.8	159.8	3.4
BUT-5-62	237	10922	0.9	18.8776	9.8	0.1838	10.5	0.0252	3.8	0.36	160.2	6.0	171.3	16.6	327.6	222.6	160.2	6.0
BUT-5-8	705	683	0.9	19.8547	10.2	0.1759	11.0	0.0253	4.1	0.37	161.3	6.5	164.6	16.7	211.9	237.5	161.3	6.5
BUT-5-22	379	10933	1.3	20.1595	9.4	0.1740	9.6	0.0254	2.0	0.21	162.0	3.2	162.9	14.4	176.5	218.9	162.0	3.2
BUT-5-2	372	35803	0.6	20.5406	8.7	0.1715	9.3	0.0255	3.2	0.35	162.6	5.2	160.7	13.8	132.6	205.2	162.6	5.2
BUT-5-40	175	5994	0.8	20.2701	16.8	0.1738	17.4	0.0255	4.5	0.26	162.6	7.2	162.7	26.2	163.7	395.2	162.6	7.2

Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	Isotopic Ratios: $^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	Apparent Ages: $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
BUT-5-69	533	14515	1.3	19.6609	5.9	0.1793	6.2	0.0256	1.8	0.29	162.7	2.9	167.4	9.6	234.6	137.3	162.7	2.9
BUT-5-37	676	49837	1.1	20.3295	5.7	0.1741	7.9	0.0257	5.5	0.70	163.4	8.9	162.9	12.0	156.9	133.3	163.4	8.9
BUT-5-3	536	29658	0.7	20.2603	4.4	0.1771	4.7	0.0260	1.9	0.40	165.6	3.1	165.6	7.3	164.8	101.8	165.6	3.1
BUT-5-4	477	5700	0.6	17.7241	10.9	0.2036	12.1	0.0262	5.3	0.44	166.5	8.7	188.1	20.8	468.9	241.4	166.5	8.7
BUT-5-33	516	11231	0.5	20.6894	7.0	0.1764	7.2	0.0265	1.5	0.22	168.4	2.6	165.0	10.9	115.7	165.2	168.4	2.6
BUT-5-1	758	25011	1.3	20.1094	3.9	0.1822	4.3	0.0266	1.7	0.40	169.1	2.9	170.0	6.7	182.3	90.7	169.1	2.9
BUT-5-74	635	24577	1.2	19.6310	3.6	0.1876	4.0	0.0267	1.7	0.43	170.0	2.9	174.6	6.4	238.1	83.7	170.0	2.9
BUT-5-80	540	18191	1.5	20.3559	3.6	0.1810	4.0	0.0267	1.7	0.44	170.0	2.9	168.9	6.2	153.8	83.8	170.0	2.9
BUT-5-87	474	18666	0.8	20.4851	4.7	0.1831	5.2	0.0272	2.3	0.44	173.0	3.9	170.7	8.2	139.0	110.7	173.0	3.9
BUT-5-91	1166	21887	2.2	19.8100	2.6	0.1932	5.5	0.0278	4.8	0.88	176.5	8.3	179.4	9.0	217.1	60.3	176.5	8.3
BUT-5-82	489	5332	2.7	20.3497	5.9	0.1891	7.2	0.0279	4.1	0.57	177.5	7.1	175.9	11.5	154.5	138.0	177.5	7.1
BUT-5-52	1043	30957	1.3	19.8309	2.0	0.2025	7.9	0.0291	7.7	0.97	185.1	14.0	187.2	13.5	214.7	46.7	185.1	14.0
BUT-5-35	468	45294	1.7	19.6873	3.7	0.2070	5.0	0.0296	3.5	0.69	187.7	6.4	191.0	8.8	231.5	84.3	187.7	6.4
BUT-5-51	143	9748	0.9	22.1880	16.2	0.1940	16.4	0.0312	2.5	0.15	198.2	4.9	180.0	27.1	-51.9	397.0	198.2	4.9
BUT-5-5	372	37576	0.9	20.0224	4.8	0.2223	6.4	0.0323	4.2	0.66	204.8	8.6	203.8	11.9	192.4	112.3	204.8	8.6
BUT-5-14	570	47476	2.9	20.0985	2.0	0.2327	3.7	0.0339	3.1	0.84	215.1	6.6	212.4	7.1	183.5	46.3	215.1	6.6
BUT-5-49	441	32083	0.9	19.1866	4.7	0.2696	6.7	0.0375	4.7	0.71	237.4	11.0	242.4	14.4	290.6	108.4	237.4	11.0
BUT-5-58	476	22629	1.6	19.6681	1.6	0.2824	4.0	0.0403	3.6	0.92	254.6	9.1	252.6	8.9	233.8	36.1	254.6	9.1
BUT-5-66	277	13892	1.5	18.9867	5.8	0.3018	6.3	0.0416	2.4	0.38	262.5	6.1	267.8	14.9	314.5	133.2	262.5	6.1
BUT-5-72	469	36603	1.9	19.0515	2.1	0.3210	2.6	0.0444	1.5	0.58	279.8	4.2	282.7	6.4	306.8	48.0	279.8	4.2
BUT-5-16	332	183617	1.6	13.2470	0.9	1.9385	1.9	0.1862	1.6	0.87	1101.0	16.4	1094.5	12.5	1081.6	18.7	1081.6	18.7
BUT-5-59	169	47648	2.0	13.1292	1.5	1.9606	1.8	0.1867	0.9	0.51	1103.4	9.1	1102.1	11.9	1099.4	30.6	1099.4	30.6
BUT-5-11	72	22592	2.1	12.2839	4.2	2.2812	4.3	0.2032	1.2	0.28	1192.7	13.0	1206.5	30.5	1231.3	81.5	1231.3	81.5
BUT-5-43	165	206280	0.4	10.8548	1.0	3.2251	1.9	0.2539	1.6	0.86	1458.6	21.2	1463.2	14.6	1469.9	18.1	1469.9	18.1
BUT-5-13	121	74601	1.6	9.8577	1.0	4.1323	1.7	0.2954	1.4	0.82	1668.7	20.9	1660.7	14.1	1650.7	18.3	1650.7	18.3
BUT-5-89	513	304085	2.2	9.6656	0.2	4.2749	2.1	0.2997	2.1	0.99	1689.7	30.6	1688.5	17.0	1687.1	4.0	1687.1	4.0
BUT-5-93	304	93494	2.7	9.5964	0.3	4.4844	1.8	0.3121	1.8	0.99	1751.1	27.6	1728.1	15.2	1700.3	5.4	1700.3	5.4
BUT-5-103	220	106156	1.5	9.4124	1.1	3.4249	3.1	0.2338	2.9	0.93	1354.4	35.4	1510.1	24.5	1735.9	20.7	1735.9	20.7
BUT-5-44	165	54782	3.6	9.3712	1.1	4.5142	1.7	0.3068	1.4	0.78	1725.0	20.7	1733.6	14.5	1743.9	20.0	1743.9	20.0
BUT-5-76	295	139238	1.9	9.1906	0.4	4.7074	0.8	0.3138	0.7	0.86	1759.3	10.6	1768.6	6.8	1779.5	7.6	1779.5	7.6
BUT-5-63	170	107551	1.6	9.1393	0.9	4.6830	1.6	0.3104	1.4	0.84	1742.7	20.7	1764.2	13.4	1789.7	15.8	1789.7	15.8
BUT-5-21	148	177698	0.7	3.8456	0.4	22.2308	1.6	0.6200	1.6	0.98	3110.1	38.5	3193.9	15.6	3246.9	5.6	3246.9	5.6
POR-1-20	1319	17692	0.4	20.8050	10.3	0.0448	10.4	0.0068	1.9	0.18	43.4	0.8	44.5	4.5	102.5	243.6	43.4	0.8
POR-1-82	192	4917	1.6	23.4001	30.8	0.0750	33.2	0.0127	12.4	0.37	81.6	10.0	73.5	23.5	-183.0	784.6	81.6	10.0
POR-1-52	331	7045	2.8	21.5345	12.0	0.0842	12.8	0.0132	4.3	0.34	84.2	3.6	82.1	10.1	20.4	289.5	84.2	3.6
POR-1-22	314	5777	2.4	22.2532	27.5	0.0848	28.0	0.0137	5.1	0.18	87.7	4.5	82.7	22.2	-59.0	682.3	87.7	4.5
POR-1-18	1197	18177	2.1	21.4930	6.4	0.0886	6.5	0.0138	1.2	0.18	88.5	1.0	86.2	5.4	25.0	152.9	88.5	1.0

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
POR-1-19	383	10265	2.6	23.3647	10.9	0.0831	11.1	0.0141	2.1	0.19	90.1	1.9	81.0	8.6	-179.2	272.0	90.1	1.9
POR-1-11	119	4735	1.5	25.5294	18.9	0.0761	24.1	0.0141	14.9	0.62	90.1	13.4	74.4	17.3	-405.3	496.4	90.1	13.4
POR-1-90	1269	24977	3.6	20.3253	2.9	0.0958	3.9	0.0141	2.6	0.67	90.4	2.4	92.9	3.5	157.4	68.5	90.4	2.4
POR-1-15	738	17004	1.6	20.7954	4.1	0.0943	4.6	0.0142	2.1	0.45	91.0	1.9	91.5	4.0	103.6	97.4	91.0	1.9
POR-1-70	445	7918	2.3	20.5601	6.6	0.0954	7.0	0.0142	2.4	0.34	91.0	2.2	92.5	6.2	130.4	155.3	91.0	2.2
POR-1-54	117	3982	2.0	20.7273	37.0	0.0952	37.2	0.0143	3.0	0.08	91.6	2.7	92.3	32.8	111.3	901.7	91.6	2.7
POR-1-40	641	12169	1.5	20.7998	4.6	0.0949	5.4	0.0143	2.8	0.52	91.6	2.6	92.0	4.8	103.1	109.9	91.6	2.6
POR-1-86	350	6493	3.0	22.5997	11.8	0.0876	12.2	0.0144	3.0	0.25	91.9	2.7	85.3	10.0	-96.8	291.8	91.9	2.7
POR-1-48	276	8840	2.2	21.3933	18.6	0.0926	18.7	0.0144	2.4	0.13	91.9	2.2	89.9	16.1	36.1	447.9	91.9	2.2
POR-1-88	667	17223	1.7	20.8359	5.9	0.0951	6.3	0.0144	2.2	0.36	92.0	2.0	92.2	5.5	99.0	139.0	92.0	2.0
POR-1-65	942	17051	1.9	21.0220	6.2	0.0947	6.3	0.0144	1.1	0.17	92.4	1.0	91.9	5.5	77.9	147.2	92.4	1.0
POR-1-13	641	18820	1.0	22.3376	7.2	0.0899	8.1	0.0146	3.7	0.46	93.2	3.4	87.4	6.8	-68.3	176.6	93.2	3.4
POR-1-67	460	7885	2.7	19.6597	9.2	0.1022	10.5	0.0146	4.9	0.47	93.2	4.5	98.8	9.8	234.8	213.6	93.2	4.5
POR-1-61	137	3060	1.4	22.3243	54.8	0.0900	55.1	0.0146	6.2	0.11	93.2	5.8	87.5	46.2	-66.8	#####	93.2	5.8
POR-1-94	606	11158	2.4	22.0632	11.7	0.0911	12.7	0.0146	4.9	0.39	93.3	4.6	88.5	10.8	-38.2	285.7	93.3	4.6
POR-1-17	193	4860	1.8	21.4853	30.9	0.0938	31.3	0.0146	5.1	0.16	93.6	4.7	91.0	27.3	25.9	757.1	93.6	4.7
POR-1-49	474	9926	2.2	20.9322	15.4	0.0966	15.6	0.0147	2.5	0.16	93.9	2.3	93.6	14.0	88.1	368.1	93.9	2.3
POR-1-50	531	16575	2.2	22.2776	11.1	0.0912	11.4	0.0147	2.6	0.23	94.3	2.5	88.6	9.7	-61.7	271.5	94.3	2.5
POR-1-89	465	16260	2.1	21.5753	11.7	0.0947	11.9	0.0148	2.5	0.21	94.8	2.4	91.9	10.5	15.8	281.0	94.8	2.4
POR-1-51	469	15854	2.1	22.0117	16.2	0.0930	16.4	0.0148	2.4	0.15	95.0	2.3	90.3	14.2	-32.5	395.4	95.0	2.3
POR-1-57	210	6417	2.2	20.7456	20.7	0.0989	21.1	0.0149	3.9	0.19	95.3	3.7	95.8	19.3	109.2	494.2	95.3	3.7
POR-1-46	456	18174	1.7	21.7569	7.5	0.0944	8.4	0.0149	3.8	0.45	95.3	3.6	91.6	7.3	-4.3	180.9	95.3	3.6
POR-1-6	648	12742	2.2	20.8519	7.7	0.0986	7.9	0.0149	1.5	0.19	95.4	1.5	95.4	7.2	97.1	183.5	95.4	1.5
POR-1-24	167	3131	3.4	25.5996	24.3	0.0803	25.1	0.0149	6.2	0.25	95.4	5.9	78.5	19.0	-412.5	643.6	95.4	5.9
POR-1-79	575	10709	2.3	21.2020	4.8	0.0970	5.9	0.0149	3.4	0.58	95.4	3.3	94.0	5.3	57.6	115.7	95.4	3.3
POR-1-10	629	15183	1.4	20.1829	8.2	0.1023	9.6	0.0150	5.1	0.53	95.8	4.8	98.9	9.1	173.8	190.9	95.8	4.8
POR-1-34	430	10537	3.3	20.8831	16.1	0.0989	16.3	0.0150	2.9	0.18	95.9	2.8	95.8	14.9	93.6	382.9	95.9	2.8
POR-1-36	853	28942	1.5	20.8990	6.4	0.0998	6.8	0.0151	2.2	0.32	96.8	2.1	96.6	6.2	91.8	152.2	96.8	2.1
POR-1-91	583	28549	1.7	20.3152	10.4	0.1028	10.9	0.0151	3.2	0.29	96.9	3.1	99.3	10.3	158.5	244.2	96.9	3.1
POR-1-55	597	14324	2.2	21.3425	8.4	0.0982	8.7	0.0152	2.3	0.27	97.3	2.3	95.2	7.9	41.8	201.1	97.3	2.3
POR-1-78	362	4688	1.4	19.9279	18.4	0.1052	19.1	0.0152	5.4	0.28	97.3	5.2	101.6	18.5	203.4	429.6	97.3	5.2
POR-1-104	198	3232	1.9	22.2582	26.9	0.0942	27.8	0.0152	7.1	0.26	97.3	6.9	91.5	24.3	-59.6	664.8	97.3	6.9
POR-1-71	401	8483	3.4	23.4527	7.6	0.0899	9.1	0.0153	5.0	0.55	97.8	4.9	87.4	7.7	-188.6	191.2	97.8	4.9
POR-1-75	1380	39001	3.8	20.9922	3.6	0.1005	4.1	0.0153	2.0	0.48	97.9	1.9	97.2	3.8	81.2	86.1	97.9	1.9
POR-1-96	237	4738	2.9	24.9599	27.9	0.0851	28.9	0.0154	7.5	0.26	98.6	7.4	83.0	23.0	-346.8	730.9	98.6	7.4
POR-1-98	415	8807	1.8	22.0070	14.8	0.0970	15.0	0.0155	2.9	0.19	99.0	2.8	94.0	13.5	-32.0	359.7	99.0	2.8
POR-1-25	672	14207	2.7	20.6040	8.6	0.1039	8.9	0.0155	2.0	0.23	99.3	2.0	100.4	8.5	125.4	203.6	99.3	2.0
POR-1-29	203	4493	2.0	31.2151	42.1	0.0687	42.2	0.0155	3.0	0.07	99.4	2.9	67.4	27.5	-961.6	#####	99.4	2.9

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$\frac{^{206}Pb}{^{204}Pb}$	U/Th	$\frac{^{206}Pb^*}{^{207}Pb^*}$	± (%)	$\frac{^{207}Pb^*}{^{235}U}$	± (%)	$\frac{^{206}Pb^*}{^{238}U}$	± (%)	error corr.	$\frac{^{206}Pb^*}{^{238}U}$	± Ma	$\frac{^{207}Pb^*}{^{235}U}$	± Ma	$\frac{^{206}Pb^*}{^{207}Pb^*}$	± Ma	Best age†	± Ma
POR-1-63	517	10625	2.8	19.6877	9.5	0.1095	9.8	0.0156	2.6	0.26	100.0	2.6	105.5	9.9	231.4	219.5	100.0	2.6
POR-1-83	78	1187	1.5	35.8873	92.9	0.0602	93.1	0.0157	6.3	0.07	100.2	6.3	59.4	53.7	-1391.8	#####	100.2	6.3
POR-1-43	616	21625	3.1	21.3266	7.0	0.1024	7.6	0.0158	2.9	0.39	101.3	3.0	99.0	7.1	43.6	166.4	101.3	3.0
POR-1-16	654	16408	3.5	20.1836	6.6	0.1085	7.3	0.0159	3.0	0.41	101.6	3.0	104.6	7.2	173.7	155.1	101.6	3.0
POR-1-33	354	18136	2.6	21.8175	12.2	0.1011	12.4	0.0160	2.2	0.18	102.3	2.2	97.8	11.6	-11.0	295.7	102.3	2.2
POR-1-5	941	24770	2.3	21.8030	4.0	0.1014	5.0	0.0160	3.1	0.61	102.6	3.1	98.1	4.7	-9.4	96.0	102.6	3.1
POR-1-62	180	5935	1.5	34.4475	38.6	0.0646	38.7	0.0161	3.6	0.09	103.2	3.6	63.5	23.9	-1261.1	#####	103.2	3.6
POR-1-103	139	2960	1.4	20.7747	36.1	0.1071	38.9	0.0161	14.4	0.37	103.2	14.7	103.3	38.2	105.9	879.2	103.2	14.7
POR-1-56	209	4948	1.8	19.3426	16.4	0.1161	16.9	0.0163	4.3	0.25	104.1	4.4	111.5	17.9	272.1	377.0	104.1	4.4
POR-1-100	344	11250	2.6	22.7366	14.2	0.0991	14.3	0.0163	1.8	0.13	104.5	1.9	95.9	13.1	-111.7	350.4	104.5	1.9
POR-1-87	153	3619	2.2	23.0408	30.1	0.0980	30.4	0.0164	4.1	0.14	104.8	4.3	95.0	27.5	-144.5	760.5	104.8	4.3
POR-1-60	109	2408	1.7	21.0619	47.9	0.1073	48.9	0.0164	9.7	0.20	104.8	10.1	103.5	48.2	73.4	#####	104.8	10.1
POR-1-85	162	5475	2.4	21.5951	17.8	0.1047	18.4	0.0164	4.7	0.25	104.8	4.9	101.1	17.7	13.6	430.9	104.8	4.9
POR-1-81	569	13222	1.9	21.2010	6.1	0.1074	7.7	0.0165	4.6	0.61	105.6	4.9	103.6	7.6	57.7	145.7	105.6	4.9
POR-1-7	435	12701	1.7	22.8519	17.0	0.1016	17.1	0.0168	1.9	0.11	107.6	2.0	98.2	16.0	-124.2	423.0	107.6	2.0
POR-1-37	95	2978	1.8	25.1026	50.9	0.0935	51.3	0.0170	6.7	0.13	108.8	7.2	90.7	44.6	-361.5	#####	108.8	7.2
POR-1-3	391	15263	2.6	22.1430	19.1	0.1063	19.3	0.0171	3.2	0.17	109.1	3.5	102.6	18.9	-46.9	466.9	109.1	3.5
POR-1-45	329	10512	1.9	23.0207	16.6	0.1023	16.6	0.0171	1.7	0.10	109.2	1.9	98.9	15.7	-142.4	412.6	109.2	1.9
POR-1-28	236	4625	1.5	21.2491	20.1	0.1144	20.5	0.0176	3.8	0.19	112.7	4.3	110.0	21.3	52.3	484.0	112.7	4.3
POR-1-97	206	3917	2.3	21.0483	19.0	0.1156	19.2	0.0176	2.9	0.15	112.7	3.2	111.1	20.2	74.9	454.6	112.7	3.2
POR-1-38	279	5811	2.3	22.4460	7.3	0.1092	12.7	0.0178	10.4	0.82	113.6	11.7	105.2	12.7	-80.1	179.0	113.6	11.7
POR-1-44	198	5251	2.3	24.9774	37.0	0.0982	37.3	0.0178	4.8	0.13	113.7	5.4	95.1	33.9	-348.6	983.0	113.7	5.4
POR-1-31	130	3044	2.2	25.7082	44.7	0.0955	45.3	0.0178	7.5	0.17	113.8	8.5	92.6	40.1	-423.6	#####	113.8	8.5
POR-1-30	975	27851	3.9	20.3069	4.0	0.1222	4.6	0.0180	2.3	0.51	115.0	2.7	117.1	5.1	159.5	93.6	115.0	2.7
POR-1-93	576	12698	2.3	22.1970	3.6	0.1120	4.0	0.0180	1.7	0.41	115.2	1.9	107.8	4.1	-52.9	88.7	115.2	1.9
POR-1-4	323	13923	2.8	20.7961	20.9	0.1201	21.4	0.0181	4.4	0.20	115.7	5.0	115.2	23.3	103.5	499.0	115.7	5.0
POR-1-8	193	5324	2.0	26.3148	14.8	0.0956	15.9	0.0182	5.8	0.37	116.6	6.7	92.7	14.1	-485.1	394.5	116.6	6.7
POR-1-9	274	7106	1.9	20.4439	11.4	0.1234	13.8	0.0183	7.8	0.57	116.9	9.1	118.2	15.4	143.7	267.6	116.9	9.1
POR-1-39	233	8590	0.9	21.9197	17.8	0.1152	18.9	0.0183	6.2	0.33	117.0	7.2	110.7	19.8	-22.3	434.4	117.0	7.2
POR-1-21	296	7720	1.9	20.0349	7.9	0.1272	8.6	0.0185	3.4	0.40	118.1	4.0	121.6	9.8	191.0	183.1	118.1	4.0
POR-1-64	302	9652	3.2	23.2494	10.4	0.1106	10.6	0.0186	2.0	0.19	119.1	2.4	106.5	10.7	-166.9	260.1	119.1	2.4
POR-1-26	248	10144	1.9	20.5659	16.0	0.1258	16.8	0.0188	5.3	0.31	119.8	6.3	120.3	19.1	129.8	378.1	119.8	6.3
POR-1-14	206	4943	1.8	28.2501	27.7	0.0921	29.5	0.0189	9.9	0.34	120.5	11.9	89.5	25.2	-677.3	778.3	120.5	11.9
POR-1-99	267	8185	2.2	22.0545	18.2	0.1201	18.5	0.0192	3.3	0.18	122.7	4.0	115.2	20.2	-37.2	445.4	122.7	4.0
POR-1-53	480	23937	2.7	20.6853	9.2	0.1292	9.4	0.0194	1.9	0.20	123.8	2.4	123.4	11.0	116.1	218.2	123.8	2.4
POR-1-47	56	1832	1.6	19.9707	80.7	0.1423	81.1	0.0206	8.8	0.11	131.5	11.4	135.1	103.0	198.4	#####	131.5	11.4
POR-1-82	68	5756	2.0	26.1927	90.9	0.1112	91.3	0.0211	8.6	0.09	134.7	11.5	107.0	93.0	-472.8	#####	134.7	11.5
POR-1-12	69	2151	2.3	40.3934	79.7	0.0774	79.9	0.0227	5.3	0.07	144.6	7.5	75.7	58.3	-1793.6	992.5	144.6	7.5

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$\frac{^{206}Pb}{^{204}Pb}$	U/Th	$\frac{^{206}Pb^*}{^{207}Pb^*}$	± (%)	$\frac{^{207}Pb^*}{^{235}U}$	± (%)	$\frac{^{206}Pb^*}{^{238}U}$	± (%)	error corr.	$\frac{^{206}Pb^*}{^{238}U}$	± Ma	$\frac{^{207}Pb^*}{^{235}U}$	± Ma	$\frac{^{206}Pb^*}{^{207}Pb^*}$	± Ma	Best age†	± Ma
POR-1-32	87	2632	3.0	15.4819	26.1	0.2062	29.5	0.0232	13.8	0.47	147.6	20.1	190.4	51.2	761.0	558.3	147.6	20.1
POR-1-92	172	7922	3.5	18.4410	12.6	0.1793	15.2	0.0240	8.4	0.56	152.8	12.8	167.5	23.4	380.5	284.5	152.8	12.8
POR-1-95	1077	49600	3.5	20.3999	3.6	0.1627	4.6	0.0241	2.9	0.63	153.4	4.4	153.1	6.5	148.8	84.2	153.4	4.4
POR-1-1	123	4101	2.2	19.8373	12.5	0.1706	13.2	0.0245	4.3	0.32	156.3	6.6	159.9	19.6	214.0	290.6	156.3	6.6
POR-1-35	185	7738	2.5	23.5621	16.1	0.1491	16.3	0.0255	2.5	0.15	162.2	4.0	141.1	21.5	-200.3	405.4	162.2	4.0
POR-1-27	173	3823	1.6	23.1524	15.3	0.1525	16.1	0.0256	4.9	0.30	163.0	7.8	144.2	21.6	-156.5	382.9	163.0	7.8
POR-1-105	393	21580	3.9	19.4129	3.8	0.1821	4.1	0.0256	1.5	0.37	163.2	2.4	169.8	6.4	263.8	87.9	163.2	2.4
POR-1-74	260	14270	1.6	21.8376	8.8	0.1619	11.0	0.0256	6.6	0.60	163.2	10.6	152.4	15.6	-13.3	213.9	163.2	10.6
POR-1-101	117	3643	1.9	21.5317	14.4	0.1644	14.7	0.0257	2.6	0.18	163.4	4.2	154.6	21.0	20.7	348.3	163.4	4.2
POR-1-2	376	12884	2.4	20.3397	7.8	0.1766	8.1	0.0261	2.4	0.29	165.8	3.9	165.1	12.4	155.7	182.7	165.8	3.9
POR-1-73	264	13819	2.4	19.4712	5.0	0.1845	5.3	0.0261	1.9	0.36	165.8	3.1	171.9	8.4	256.9	114.8	165.8	3.1
POR-1-69	205	10800	2.7	22.4366	7.5	0.1610	8.4	0.0262	3.8	0.45	166.7	6.3	151.6	11.8	-79.1	182.9	166.7	6.3
POR-1-80	117	9042	2.7	19.1584	22.9	0.2379	23.3	0.0331	4.1	0.18	209.6	8.4	216.7	45.4	294.0	528.7	209.6	8.4
POR-1-72	414	138177	6.5	11.3772	0.6	2.8529	1.3	0.2354	1.2	0.90	1362.8	14.2	1369.6	9.6	1380.2	10.8	1380.2	10.8
POR-1-42	422	69307	2.6	11.3581	0.8	2.6540	4.4	0.2186	4.3	0.98	1274.6	50.2	1315.7	32.5	1383.4	14.8	1383.4	14.8
POR-1-23	300	302162	4.0	11.3310	0.9	2.8300	1.3	0.2326	1.0	0.76	1347.9	12.3	1363.5	9.9	1388.0	16.5	1388.0	16.5
POR-1-66	275	139416	12.5	9.1821	0.7	4.6680	1.7	0.3109	1.6	0.90	1745.0	23.7	1761.5	14.4	1781.2	13.6	1781.2	13.6
POR-1-59	95	48576	1.6	9.1667	2.2	4.4291	2.6	0.2945	1.4	0.55	1663.8	21.1	1717.8	21.8	1784.3	40.2	1784.3	40.2
POR-1-76	27	11704	1.3	8.6136	2.7	5.5384	3.2	0.3460	1.6	0.51	1915.5	26.9	1906.6	27.5	1896.9	49.5	1896.9	49.5
BUT-4-64	809	17593	1.8	22.7070	5.5	0.0815	6.0	0.0134	2.4	0.40	86.0	2.0	79.6	4.6	-108.5	136.1	86.0	2.0
BUT-4-56	175	3048	1.1	32.4325	45.8	0.0578	45.9	0.0136	3.4	0.07	87.0	2.9	57.0	25.5	-1075.5	#####	87.0	2.9
BUT-4-67	221	1112	1.3	16.7693	50.3	0.1119	52.0	0.0136	13.4	0.26	87.1	11.6	107.7	53.2	590.3	#####	87.1	11.6
BUT-4-71	735	10161	3.9	21.5053	9.5	0.0901	9.9	0.0141	2.5	0.26	90.0	2.3	87.6	8.3	23.6	229.0	90.0	2.3
BUT-4-23	538	15426	1.6	23.1552	7.2	0.0839	9.5	0.0141	6.2	0.65	90.2	5.5	81.8	7.5	-156.8	180.1	90.2	5.5
BUT-4-68	133	1943	1.4	19.4348	31.3	0.1005	32.5	0.0142	8.6	0.27	90.7	7.8	97.3	30.1	261.2	735.4	90.7	7.8
BUT-4-19	732	20925	3.6	19.9604	10.6	0.0979	11.2	0.0142	3.6	0.33	90.8	3.3	94.9	10.1	199.6	246.6	90.8	3.3
BUT-4-5	319	2513	2.6	19.2634	21.4	0.1019	21.8	0.0142	3.9	0.18	91.1	3.5	98.5	20.4	281.6	495.3	91.1	3.5
BUT-4-24	110	9847	2.8	20.6243	49.6	0.0963	53.0	0.0144	18.6	0.35	92.2	17.0	93.4	47.3	123.1	#####	92.2	17.0
BUT-4-58	280	4931	2.5	23.7080	29.1	0.0840	29.7	0.0144	5.6	0.19	92.4	5.1	81.9	23.4	-215.8	745.7	92.4	5.1
BUT-4-25	386	6873	2.2	22.2397	12.1	0.0900	12.4	0.0145	3.1	0.25	92.9	2.8	87.5	10.4	-57.5	294.6	92.9	2.8
BUT-4-7	118	5889	0.8	10.2830	162.9	0.1967	163.1	0.0147	8.6	0.05	93.9	8.0	182.4	279.1	1572.0	278.4	93.9	8.0
BUT-4-77	2912	709	1.0	20.0556	7.9	0.1015	11.2	0.0148	8.0	0.71	94.5	7.5	98.1	10.5	188.5	183.8	94.5	7.5
BUT-4-18	645	12883	4.0	21.7612	6.7	0.0943	7.0	0.0149	2.1	0.29	95.2	1.9	91.5	6.1	-4.8	161.9	95.2	1.9
BUT-4-46	216	4632	1.4	21.9901	17.9	0.0955	19.3	0.0152	7.2	0.37	97.5	6.9	92.6	17.1	-30.1	436.5	97.5	6.9
BUT-4-94	655	21925	3.9	22.3934	12.1	0.0942	12.5	0.0153	3.2	0.26	97.8	3.1	91.4	11.0	-74.4	296.9	97.8	3.1
BUT-4-55	208	10275	0.8	22.4710	46.0	0.0949	46.2	0.0155	4.3	0.09	99.0	4.2	92.1	40.7	-82.8	#####	99.0	4.2
BUT-4-98	1226	64068	1.2	20.2511	3.1	0.1058	4.2	0.0155	2.8	0.66	99.4	2.7	102.1	4.0	165.9	73.1	99.4	2.7

Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	Isotopic Ratios: $^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	Apparent Ages: $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
BUT-4-50	711	11995	2.9	20.4788	5.1	0.1058	5.5	0.0157	2.0	0.36	100.5	2.0	102.1	5.3	139.7	120.0	100.5	2.0
BUT-4-48	342	7888	3.8	22.9529	21.0	0.0961	25.5	0.0160	14.4	0.57	102.3	14.7	93.2	22.7	-135.1	524.5	102.3	14.7
BUT-4-60	386	7841	1.2	23.3157	9.1	0.0968	9.4	0.0164	2.1	0.23	104.7	2.2	93.8	8.4	-174.0	228.3	104.7	2.2
BUT-4-16	161	2427	0.7	19.6342	29.2	0.1251	30.1	0.0178	7.3	0.24	113.8	8.2	119.7	34.0	237.7	686.3	113.8	8.2
BUT-4-97	1149	5742	1.5	19.2383	9.6	0.1358	13.0	0.0190	8.8	0.68	121.0	10.5	129.3	15.8	284.5	219.4	121.0	10.5
BUT-4-80	334	3441	0.7	19.9804	12.6	0.1526	12.9	0.0221	2.9	0.22	141.0	4.0	144.2	17.4	197.3	294.2	141.0	4.0
BUT-4-11	885	20721	1.7	21.3960	6.2	0.1444	6.5	0.0224	2.2	0.33	142.9	3.0	137.0	8.4	35.8	147.5	142.9	3.0
BUT-4-63	173	7939	1.1	18.2215	17.9	0.1717	18.1	0.0227	2.9	0.16	144.7	4.1	160.9	27.0	407.3	403.7	144.7	4.1
BUT-4-35	69	1850	1.2	20.5945	52.7	0.1528	53.1	0.0228	6.6	0.12	145.5	9.4	144.4	71.5	126.5	#####	145.5	9.4
BUT-4-37	212	5792	1.4	23.7204	22.8	0.1359	24.2	0.0234	8.1	0.33	148.9	11.9	129.4	29.4	-217.1	579.6	148.9	11.9
BUT-4-8	504	6538	1.2	20.0085	6.1	0.1615	6.8	0.0234	2.8	0.42	149.3	4.2	152.0	9.6	194.0	143.0	149.3	4.2
BUT-4-40	124	2839	1.2	17.8640	17.9	0.1821	18.8	0.0236	5.9	0.31	150.3	8.8	169.9	29.4	451.5	399.5	150.3	8.8
BUT-4-6	42	867	0.3	15.4511	35.1	0.2110	39.4	0.0236	17.9	0.45	150.7	26.7	194.4	69.8	765.2	762.0	150.7	26.7
BUT-4-47	255	6092	0.6	23.2274	22.1	0.1408	23.1	0.0237	6.8	0.30	151.1	10.2	133.7	29.0	-164.5	555.9	151.1	10.2
BUT-4-30	133	2943	1.0	24.7615	35.9	0.1322	36.0	0.0237	2.4	0.07	151.3	3.7	126.1	42.7	-326.2	948.9	151.3	3.7
BUT-4-84	134	7688	1.8	21.2434	29.2	0.1543	29.8	0.0238	6.2	0.21	151.4	9.3	145.7	40.5	53.0	709.7	151.4	9.3
BUT-4-20	151	6318	1.3	25.3224	33.9	0.1299	34.2	0.0239	4.6	0.13	152.0	6.9	124.0	39.9	-384.1	902.4	152.0	6.9
BUT-4-4	152	3945	1.5	20.2976	16.7	0.1643	18.0	0.0242	6.8	0.38	154.1	10.4	154.5	25.8	160.5	392.1	154.1	10.4
BUT-4-103	196	4828	0.9	22.2836	15.5	0.1499	18.5	0.0242	10.1	0.54	154.3	15.4	141.8	24.5	-62.4	380.2	154.3	15.4
BUT-4-1	531	3767	1.3	17.6234	11.5	0.1906	11.7	0.0244	1.9	0.17	155.1	3.0	177.1	19.0	481.5	254.9	155.1	3.0
BUT-4-2	177	5084	0.7	21.5384	37.5	0.1567	38.2	0.0245	7.2	0.19	155.8	11.1	147.8	52.6	20.0	930.3	155.8	11.1
BUT-4-34	121	4411	1.2	26.1437	26.8	0.1292	28.7	0.0245	10.5	0.36	156.0	16.1	123.4	33.4	-467.8	718.1	156.0	16.1
BUT-4-73	443	21285	1.4	20.2933	3.9	0.1684	4.3	0.0248	1.9	0.45	157.9	3.0	158.1	6.3	161.1	90.1	157.9	3.0
BUT-4-3	336	9778	0.6	21.6794	8.5	0.1579	9.2	0.0248	3.3	0.36	158.1	5.2	148.9	12.7	4.3	205.9	158.1	5.2
BUT-4-96	126	3478	1.0	25.9372	18.4	0.1322	19.1	0.0249	5.4	0.28	158.3	8.4	126.1	22.7	-446.9	486.8	158.3	8.4
BUT-4-54	196	6174	1.1	20.1986	16.4	0.1701	16.7	0.0249	3.1	0.19	158.6	4.9	159.5	24.6	172.0	384.1	158.6	4.9
BUT-4-69	455	15000	0.6	21.0355	5.6	0.1634	6.3	0.0249	2.7	0.43	158.7	4.3	153.7	8.9	76.4	134.2	158.7	4.3
BUT-4-86	240	9680	1.1	21.6410	14.6	0.1590	14.8	0.0250	2.3	0.15	158.9	3.5	149.9	20.7	8.5	354.1	158.9	3.5
BUT-4-100	155	2800	1.1	17.8883	18.7	0.1934	21.3	0.0251	10.3	0.48	159.7	16.2	179.5	35.1	448.5	418.2	159.7	16.2
BUT-4-87	504	7559	0.9	19.9517	13.2	0.1739	13.4	0.0252	2.3	0.17	160.2	3.6	162.8	20.2	200.6	308.7	160.2	3.6
BUT-4-82	299	41661	1.4	19.6858	10.6	0.1769	11.0	0.0253	3.1	0.28	160.8	4.9	165.4	16.9	231.6	245.7	160.8	4.9
BUT-4-51	371	11822	0.8	20.3216	10.3	0.1725	10.4	0.0254	1.6	0.16	161.8	2.6	161.6	15.6	157.8	241.3	161.8	2.6
BUT-4-9	794	29498	0.8	20.7170	4.8	0.1693	4.9	0.0254	1.1	0.22	161.9	1.7	158.8	7.2	112.5	112.5	161.9	1.7
BUT-4-78	449	12576	1.0	20.6017	8.6	0.1706	8.9	0.0255	2.2	0.25	162.2	3.5	159.9	13.1	125.6	202.2	162.2	3.5
BUT-4-72	713	9344	1.0	19.9893	4.0	0.1762	4.2	0.0255	1.1	0.26	162.6	1.8	164.8	6.3	196.3	93.4	162.6	1.8
BUT-4-13	178	11489	0.6	21.4685	22.0	0.1644	23.1	0.0256	7.1	0.31	162.9	11.4	154.5	33.1	27.8	532.9	162.9	11.4
BUT-4-75	505	12901	1.3	19.5540	8.5	0.1806	9.2	0.0256	3.6	0.39	163.0	5.7	168.6	14.3	247.2	194.9	163.0	5.7
BUT-4-28	449	11440	1.7	20.9994	7.6	0.1684	7.7	0.0257	1.1	0.15	163.3	1.8	158.0	11.3	80.4	180.8	163.3	1.8

Analysis	U (ppm)	$\frac{^{206}Pb}{^{204}Pb}$	U/Th	Isotopic Ratios $\frac{^{206}Pb^*}{^{207}Pb^*}$	± (%)	$\frac{^{207}Pb^*}{^{235}U}$	± (%)	$\frac{^{206}Pb^*}{^{238}U}$	± (%)	error corr.	Apparent Ages $\frac{^{206}Pb^*}{^{238}U}$	± Ma	$\frac{^{207}Pb^*}{^{235}U}$	± Ma	$\frac{^{206}Pb^*}{^{207}Pb^*}$	± Ma	Best age†	± Ma
BUT-4-29	405	27751	0.6	20.9154	10.7	0.1691	10.8	0.0257	1.3	0.12	163.3	2.1	158.7	15.8	89.9	253.7	163.3	2.1
BUT-4-79	458	11151	1.3	20.4799	6.8	0.1733	7.0	0.0257	1.5	0.21	163.9	2.3	162.3	10.5	139.6	160.3	163.9	2.3
BUT-4-59	1195	4809	1.0	19.6033	4.0	0.1811	6.7	0.0257	5.3	0.80	163.9	8.6	169.0	10.4	241.3	92.1	163.9	8.6
BUT-4-42	700	19897	1.5	20.5457	4.0	0.1729	4.2	0.0258	1.2	0.29	164.0	2.0	161.9	6.3	132.0	94.7	164.0	2.0
BUT-4-85	435	18960	0.7	20.9565	12.2	0.1698	12.8	0.0258	3.7	0.29	164.3	6.0	159.3	18.8	85.3	290.7	164.3	6.0
BUT-4-31	226	7764	1.2	20.8662	19.0	0.1713	20.1	0.0259	6.6	0.33	165.0	10.8	160.6	29.9	95.6	453.5	165.0	10.8
BUT-4-99	350	10238	1.1	19.7918	8.1	0.1808	8.7	0.0259	3.2	0.37	165.1	5.2	168.7	13.6	219.2	187.9	165.1	5.2
BUT-4-14	527	23264	1.4	19.9047	4.7	0.1800	4.9	0.0260	1.6	0.32	165.4	2.6	168.0	7.7	206.1	108.8	165.4	2.6
BUT-4-36	109	2847	1.0	19.9956	50.4	0.1793	51.6	0.0260	11.1	0.22	165.5	18.2	167.4	79.8	195.5	#####	165.5	18.2
BUT-4-39	559	12245	1.2	19.3331	7.0	0.1861	7.8	0.0261	3.3	0.43	166.0	5.5	173.3	12.4	273.2	160.9	166.0	5.5
BUT-4-70	725	16032	0.8	20.3837	4.0	0.1768	4.2	0.0261	1.2	0.28	166.4	1.9	165.3	6.3	150.6	93.5	166.4	1.9
BUT-4-57	82	2568	0.9	25.9434	34.8	0.1391	35.3	0.0262	6.2	0.18	166.6	10.2	132.2	43.8	-447.5	939.4	166.6	10.2
BUT-4-65	385	29115	1.3	21.1943	9.9	0.1704	10.0	0.0262	1.7	0.17	166.6	2.8	159.7	14.8	58.5	235.4	166.6	2.8
BUT-4-83	88	1270	0.9	35.7993	41.4	0.1010	42.3	0.0262	8.8	0.21	166.8	14.5	97.7	39.5	-1383.8	#####	166.8	14.5
BUT-4-43	1619	14252	18.8	19.7858	3.2	0.1828	5.7	0.0262	4.7	0.82	167.0	7.7	170.5	8.9	220.0	75.0	167.0	7.7
BUT-4-38	50	1164	1.4	55.1080	106.8	0.0661	108.0	0.0264	16.4	0.15	168.2	27.3	65.0	68.2	-3087.6	0.0	168.2	27.3
BUT-4-45	596	17147	1.5	19.5329	5.0	0.1867	5.1	0.0265	0.9	0.19	168.3	1.6	173.8	8.1	249.6	115.3	168.3	1.6
BUT-4-93	439	18307	0.5	19.7248	5.7	0.1849	6.2	0.0265	2.4	0.39	168.3	4.0	172.3	9.8	227.1	131.9	168.3	4.0
BUT-4-74	571	40823	4.0	20.5917	5.7	0.1777	6.5	0.0265	3.0	0.47	168.9	5.0	166.1	9.9	126.8	134.9	168.9	5.0
BUT-4-81	805	28376	1.9	20.6549	6.3	0.1772	6.5	0.0265	1.7	0.25	168.9	2.8	165.7	10.0	119.6	149.0	168.9	2.8
BUT-4-53	578	30411	1.1	20.5943	3.3	0.1778	3.8	0.0266	1.8	0.49	168.9	3.0	166.1	5.8	126.5	77.6	168.9	3.0
BUT-4-62	122	1129	1.3	15.8167	22.5	0.2333	24.5	0.0268	9.5	0.39	170.3	16.0	212.9	47.0	715.8	484.4	170.3	16.0
BUT-4-41	577	32945	0.7	19.2325	5.3	0.1921	5.5	0.0268	1.4	0.25	170.5	2.3	178.4	9.0	285.2	122.0	170.5	2.3
BUT-4-49	344	6991	1.2	19.7791	5.4	0.1917	6.2	0.0275	3.0	0.49	174.9	5.2	178.1	10.2	220.7	126.0	174.9	5.2
BUT-4-52	166	15893	1.8	19.4075	14.0	0.1959	14.2	0.0276	2.4	0.17	175.4	4.2	181.7	23.6	264.5	322.2	175.4	4.2
BUT-4-17	566	35482	1.6	19.8391	4.5	0.1930	4.8	0.0278	1.7	0.36	176.6	3.0	179.2	7.9	213.8	103.7	176.6	3.0
BUT-4-89	320	11124	0.9	21.1483	9.4	0.1911	9.6	0.0293	1.8	0.19	186.3	3.3	177.6	15.6	63.6	224.1	186.3	3.3
BUT-4-12	218	5011	1.8	18.4576	19.5	0.2344	20.0	0.0314	4.8	0.24	199.2	9.4	213.8	38.7	378.4	441.4	199.2	9.4
BUT-4-22	73	2817	1.7	21.8092	38.6	0.2154	38.9	0.0341	5.0	0.13	216.0	10.6	198.1	70.1	-10.1	963.1	216.0	10.6
BUT-4-95	516	28913	3.3	19.4603	4.0	0.2707	4.3	0.0382	1.7	0.39	241.7	3.9	243.2	9.3	258.2	90.9	241.7	3.9
BUT-4-15	75	4065	2.6	31.3518	24.1	0.1711	24.5	0.0389	4.5	0.18	246.1	10.9	160.4	36.4	-974.5	718.9	246.1	10.9
BUT-4-88	386	28224	2.6	20.3304	3.3	0.2845	4.4	0.0420	2.8	0.65	264.9	7.4	254.2	9.8	156.8	77.9	264.9	7.4
BUT-4-90	316	12723	1.8	19.5441	6.3	0.2974	6.7	0.0422	2.4	0.36	266.2	6.3	264.4	15.6	248.3	144.3	266.2	6.3
BUT-4-91	287	29218	1.5	18.4637	4.0	0.3225	4.5	0.0432	1.9	0.43	272.6	5.1	283.9	11.0	377.7	90.7	272.6	5.1
BUT-4-102	177	8074	2.1	21.0343	11.6	0.2929	13.4	0.0447	6.7	0.50	281.8	18.5	260.8	30.9	76.5	276.7	281.8	18.5
BUT-4-101	567	61834	5.1	17.1233	1.8	0.7280	2.6	0.0904	1.9	0.73	558.0	10.3	555.4	11.2	544.8	38.9	558.0	10.3
BUT-4-32	84	28931	2.1	13.1317	3.7	2.0495	4.6	0.1952	2.7	0.59	1149.5	28.3	1132.1	31.4	1099.1	74.6	1099.1	74.6
BUT-4-10	1972	111108	61.9	9.7627	0.5	2.8432	2.3	0.2013	2.2	0.98	1182.4	24.0	1367.0	17.1	1668.6	8.9	1668.6	8.9

Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	Isotopic Ratios $^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
BUT-4-66	845	561929	2.6	9.6380	0.2	4.0355	1.5	0.2821	1.5	0.99	1601.9	21.1	1641.4	12.2	1692.4	3.8	1692.4	3.8
BUT-4-76	763	504694	11.0	9.5106	0.3	4.0940	1.8	0.2824	1.8	0.99	1603.4	25.7	1653.1	14.9	1716.8	4.7	1716.8	4.7
BUT-4-44	215	159162	3.5	9.3032	0.4	4.7834	1.9	0.3228	1.9	0.98	1803.2	29.6	1782.0	16.2	1757.3	7.6	1757.3	7.6
BUT-4-61	248	148295	1.9	9.1989	0.8	4.6451	1.3	0.3099	1.1	0.80	1740.2	16.4	1757.4	11.2	1777.9	14.8	1777.9	14.8
BUT-4-26	190	49788	1.7	9.0983	0.7	4.6559	2.5	0.3072	2.4	0.97	1727.1	37.0	1759.4	21.2	1797.9	12.0	1797.9	12.0
SJB-1-1	847	99548	1.4	21.3407	8.1	0.0838	8.2	0.0130	1.1	0.14	83.1	0.9	81.7	6.4	42.0	194.4	83.1	0.9
SJB-1-99	836	12574	1.1	20.6943	8.2	0.0904	9.0	0.0136	3.8	0.42	86.8	3.3	87.8	7.6	115.1	193.9	86.8	3.3
SJB-1-93	525	34856	1.0	19.7304	14.9	0.0950	15.2	0.0136	2.8	0.19	87.0	2.5	92.1	13.4	226.5	346.0	87.0	2.5
SJB-1-61	950	23096	1.9	20.3869	5.7	0.0947	6.6	0.0140	3.4	0.51	89.6	3.0	91.9	5.8	150.3	132.6	89.6	3.0
SJB-1-30	583	37438	1.9	21.4068	7.8	0.0907	8.0	0.0141	1.7	0.21	90.1	1.5	88.1	6.7	34.6	187.3	90.1	1.5
SJB-1-50	292	16185	2.0	25.9281	24.0	0.0754	25.0	0.0142	6.9	0.28	90.8	6.2	73.8	17.8	-446.0	640.0	90.8	6.2
SJB-1-83	200	6178	1.1	16.5310	19.7	0.1190	20.3	0.0143	5.1	0.25	91.3	4.6	114.1	22.0	621.2	428.4	91.3	4.6
SJB-1-69	671	13738	1.9	20.9594	6.9	0.0942	7.4	0.0143	2.4	0.33	91.6	2.2	91.4	6.4	85.0	164.6	91.6	2.2
SJB-1-34	191	18989	1.2	20.0459	19.6	0.0988	20.1	0.0144	4.6	0.23	92.0	4.2	95.7	18.4	189.6	459.6	92.0	4.2
SJB-1-40	681	13974	1.2	19.2333	7.9	0.1033	8.0	0.0144	1.4	0.18	92.2	1.3	99.8	7.6	285.1	180.1	92.2	1.3
SJB-1-2	712	34169	1.9	21.5384	8.3	0.0923	8.4	0.0144	1.3	0.16	92.3	1.2	89.7	7.2	20.0	199.0	92.3	1.2
SJB-1-68	321	4738	1.9	23.5781	13.8	0.0846	14.2	0.0145	3.1	0.22	92.6	2.9	82.4	11.2	-202.0	347.9	92.6	2.9
SJB-1-52	486	4028	2.1	21.9695	7.2	0.0909	8.0	0.0145	3.4	0.42	92.7	3.1	88.3	6.7	-27.8	174.9	92.7	3.1
SJB-1-14	247	17962	1.5	19.5685	16.4	0.1024	17.4	0.0145	5.7	0.33	93.0	5.3	99.0	16.4	245.5	380.4	93.0	5.3
SJB-1-11	538	34005	2.3	21.6864	9.8	0.0925	10.5	0.0145	3.9	0.37	93.1	3.6	89.8	9.1	3.5	236.1	93.1	3.6
SJB-1-96	660	18108	1.8	21.0291	7.1	0.0957	7.6	0.0146	2.7	0.35	93.5	2.5	92.8	6.8	77.1	169.7	93.5	2.5
SJB-1-4	343	16626	1.9	22.6218	24.3	0.0892	24.4	0.0146	2.6	0.11	93.6	2.4	86.7	20.3	-99.2	604.8	93.6	2.4
SJB-1-48	250	16385	2.0	19.1751	12.8	0.1053	13.3	0.0146	3.7	0.28	93.7	3.5	101.6	12.9	292.0	292.8	93.7	3.5
SJB-1-58	543	8031	1.6	21.1791	10.0	0.0958	10.2	0.0147	2.0	0.20	94.2	1.9	92.9	9.1	60.2	239.3	94.2	1.9
SJB-1-10	287	10929	2.6	21.4491	23.2	0.0956	23.8	0.0149	5.3	0.22	95.1	5.0	92.7	21.1	29.9	562.7	95.1	5.0
SJB-1-63	150	6641	0.9	23.1640	14.3	0.0890	15.3	0.0150	5.5	0.36	95.7	5.2	86.6	12.7	-157.7	356.3	95.7	5.2
SJB-1-65	273	6580	1.4	18.4130	12.4	0.1122	13.2	0.0150	4.4	0.33	95.9	4.2	108.0	13.5	383.9	280.4	95.9	4.2
SJB-1-91	646	18717	1.7	20.6925	6.9	0.1008	7.1	0.0151	1.7	0.24	96.8	1.6	97.5	6.6	115.3	163.2	96.8	1.6
SJB-1-7	1279	70868	1.2	21.3162	4.0	0.0984	4.5	0.0152	2.1	0.47	97.3	2.1	95.3	4.1	44.8	95.9	97.3	2.1
SJB-1-55	725	9932	1.1	20.0439	9.4	0.1047	11.0	0.0152	5.8	0.52	97.4	5.6	101.1	10.6	189.9	219.5	97.4	5.6
SJB-1-16	1124	66744	1.7	20.6172	3.6	0.1028	3.9	0.0154	1.4	0.35	98.3	1.3	99.4	3.7	123.9	85.1	98.3	1.3
SJB-1-3	615	30690	2.4	21.4692	8.0	0.0989	8.3	0.0154	2.0	0.24	98.5	1.9	95.8	7.6	27.7	192.8	98.5	1.9
SJB-1-25	500	55880	2.6	20.6994	7.2	0.1027	7.7	0.0154	2.7	0.36	98.6	2.7	99.2	7.3	114.5	170.2	98.6	2.7
SJB-1-28	182	13510	1.0	23.9044	39.0	0.0894	39.2	0.0155	4.1	0.10	99.1	4.0	86.9	32.7	-236.5	#####	99.1	4.0
SJB-1-77	1035	22408	3.2	20.9286	4.3	0.1025	5.2	0.0156	2.9	0.56	99.5	2.9	99.0	4.9	88.5	102.3	99.5	2.9
SJB-1-54	390	14936	0.6	21.3976	10.3	0.1003	10.9	0.0156	3.6	0.33	99.5	3.5	97.0	10.1	35.6	246.7	99.5	3.5
SJB-1-82	1509	41134	1.5	21.2652	3.0	0.1009	3.7	0.0156	2.1	0.58	99.5	2.1	97.6	3.4	50.5	71.5	99.5	2.1

Analysis	U	$^{206}Pb/^{204}Pb$	U/Th	Isotopic Ratios							Apparent Ages						Best	±
	(ppm)			$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	age†	Ma
SJB-1-95	276	10174	1.2	19.7305	17.8	0.1102	18.2	0.0158	4.0	0.22	100.9	4.0	106.2	18.4	226.5	413.8	100.9	4.0
SJB-1-56	640	15905	1.1	20.6083	6.0	0.1078	6.3	0.0161	1.9	0.30	103.1	1.9	104.0	6.2	124.9	142.0	103.1	1.9
SJB-1-75	307	10811	1.3	25.9326	28.3	0.0865	28.5	0.0163	2.8	0.10	104.0	2.9	84.2	23.0	-446.4	758.3	104.0	2.9
SJB-1-78	184	4536	1.0	25.5782	49.0	0.0877	49.3	0.0163	4.9	0.10	104.1	5.1	85.4	40.4	-410.3	#####	104.1	5.1
SJB-1-57	320	11311	2.2	22.6257	13.0	0.0993	13.2	0.0163	2.1	0.16	104.2	2.1	96.2	12.1	-99.6	320.5	104.2	2.1
SJB-1-97	244	7504	0.6	19.8595	10.8	0.1156	12.3	0.0166	5.9	0.48	106.4	6.2	111.0	12.9	211.4	250.0	106.4	6.2
SJB-1-62	1594	77002	2.3	21.0291	3.2	0.1100	3.8	0.0168	2.0	0.52	107.2	2.1	105.9	3.8	77.1	76.8	107.2	2.1
SJB-1-19	898	60685	2.0	20.2149	4.3	0.1155	4.9	0.0169	2.3	0.47	108.2	2.5	110.9	5.1	170.1	100.6	108.2	2.5
SJB-1-84	1094	40389	3.4	20.3328	7.9	0.1209	8.1	0.0178	1.8	0.22	113.9	2.0	115.9	8.9	156.5	185.0	113.9	2.0
SJB-1-94	231	2439	1.8	21.2104	14.1	0.1184	14.3	0.0182	2.3	0.16	116.3	2.6	113.6	15.4	56.7	338.1	116.3	2.6
SJB-1-31	260	34066	1.0	21.2559	15.2	0.1483	15.8	0.0229	4.3	0.27	145.7	6.1	140.4	20.7	51.5	364.4	145.7	6.1
SJB-1-87	569	20181	0.5	19.8956	6.3	0.1596	6.5	0.0230	1.6	0.24	146.8	2.3	150.4	9.1	207.1	147.1	146.8	2.3
SJB-1-43	776	67377	0.4	20.3399	3.3	0.1569	3.8	0.0231	1.7	0.46	147.5	2.5	148.0	5.2	155.7	77.9	147.5	2.5
SJB-1-49	637	35895	1.1	20.0396	6.6	0.1611	8.2	0.0234	4.9	0.59	149.2	7.2	151.6	11.5	190.4	153.5	149.2	7.2
SJB-1-15	67	7031	0.6	18.4293	35.0	0.1779	35.4	0.0238	5.5	0.16	151.5	8.3	166.3	54.4	381.9	809.2	151.5	8.3
SJB-1-92	377	4884	1.4	20.9452	7.8	0.1567	9.4	0.0238	5.3	0.56	151.7	8.0	147.9	13.0	86.6	185.2	151.7	8.0
SJB-1-5	531	86511	1.2	20.4025	6.3	0.1626	6.5	0.0241	1.7	0.26	153.3	2.6	153.0	9.3	148.5	148.0	153.3	2.6
SJB-1-8	221	80774	0.7	20.2695	13.4	0.1663	14.7	0.0244	5.9	0.40	155.7	9.1	156.2	21.2	163.8	314.6	155.7	9.1
SJB-1-39	167	28315	0.6	21.4103	23.5	0.1589	23.8	0.0247	4.0	0.17	157.1	6.3	149.7	33.2	34.2	569.1	157.1	6.3
SJB-1-24	39	4271	1.0	5.7585	325.3	0.6001	325.6	0.0251	14.9	0.05	159.6	23.5	477.3	#####	2593.2	149.0	159.6	23.5
SJB-1-88	709	21667	0.8	20.1269	4.8	0.1731	6.3	0.0253	4.1	0.65	160.9	6.5	162.1	9.4	180.3	111.8	160.9	6.5
SJB-1-37	115	13397	0.5	16.3335	21.5	0.2137	22.2	0.0253	5.5	0.25	161.2	8.7	196.6	39.7	647.1	466.9	161.2	8.7
SJB-1-38	717	43407	0.5	19.4680	5.6	0.1804	8.4	0.0255	6.3	0.75	162.1	10.0	168.4	13.0	257.3	128.4	162.1	10.0
SJB-1-76	648	29043	0.9	20.8177	4.2	0.1691	4.9	0.0255	2.4	0.50	162.5	3.9	158.6	7.2	101.1	99.8	162.5	3.9
SJB-1-20	158	21527	0.8	26.5117	35.5	0.1334	35.8	0.0257	4.2	0.12	163.3	6.8	127.2	42.8	-504.9	971.5	163.3	6.8
SJB-1-53	356	13586	0.9	20.6557	9.8	0.1713	9.9	0.0257	1.7	0.17	163.3	2.7	160.5	14.7	119.5	231.2	163.3	2.7
SJB-1-66	445	50646	1.1	20.2873	8.6	0.1751	8.7	0.0258	1.4	0.16	164.0	2.3	163.8	13.1	161.8	200.5	164.0	2.3
SJB-1-47	333	32616	1.0	19.5007	8.1	0.1826	8.8	0.0258	3.5	0.40	164.3	5.7	170.3	13.8	253.4	186.1	164.3	5.7
SJB-1-42	244	16081	1.2	22.9902	12.3	0.1557	13.0	0.0260	4.3	0.33	165.3	7.1	147.0	17.8	-139.1	305.3	165.3	7.1
SJB-1-64	156	9488	0.8	24.0348	26.9	0.1497	27.1	0.0261	3.1	0.11	166.1	5.1	141.7	35.8	-250.3	691.6	166.1	5.1
SJB-1-85	1341	179420	3.4	20.3469	2.2	0.1771	2.5	0.0261	1.2	0.49	166.3	2.0	165.6	3.8	154.9	50.9	166.3	2.0
SJB-1-81	426	17705	0.9	21.2615	9.4	0.1697	9.6	0.0262	2.1	0.22	166.5	3.5	159.1	14.2	50.9	225.0	166.5	3.5
SJB-1-18	500	45211	0.4	20.1540	3.2	0.1790	3.5	0.0262	1.2	0.34	166.5	1.9	167.2	5.3	177.1	75.7	166.5	1.9
SJB-1-17	550	69169	0.9	21.0955	5.2	0.1718	5.4	0.0263	1.6	0.29	167.3	2.6	161.0	8.1	69.6	123.3	167.3	2.6
SJB-1-33	971	50136	1.4	19.5688	6.9	0.1859	7.3	0.0264	2.5	0.34	167.9	4.1	173.1	11.6	245.4	158.0	167.9	4.1
SJB-1-35	160	32582	0.4	21.3530	17.9	0.1705	18.3	0.0264	3.5	0.19	168.1	5.8	159.9	27.0	40.7	432.2	168.1	5.8
SJB-1-74	369	14976	1.1	19.8678	2.5	0.1833	2.7	0.0264	1.1	0.41	168.1	1.9	170.9	4.3	210.4	58.2	168.1	1.9
SJB-1-32	628	64966	1.0	20.5836	3.0	0.1770	3.1	0.0264	0.8	0.25	168.2	1.3	165.5	4.7	127.8	70.5	168.2	1.3

				Isotopic Ratios							Apparent Ages							
Analysis	U (ppm)	$^{206}Pb/^{204}Pb$	U/Th	$^{206}Pb^*/^{207}Pb^*$	± (%)	$^{207}Pb^*/^{235}U$	± (%)	$^{206}Pb^*/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{206}Pb^*/^{207}Pb^*$	± Ma	Best age†	± Ma
SJB-1-98	946	37871	1.1	20.1424	3.4	0.1814	3.8	0.0265	1.7	0.45	168.6	2.8	169.3	5.9	178.5	78.8	168.6	2.8
SJB-1-13	1289	217093	1.1	20.1557	2.0	0.1830	2.2	0.0268	0.7	0.33	170.2	1.2	170.6	3.4	176.9	47.6	170.2	1.2
SJB-1-23	337	11560	1.0	18.9857	13.2	0.1943	13.5	0.0268	2.6	0.19	170.2	4.4	180.3	22.3	314.7	302.0	170.2	4.4
SJB-1-80	1305	140849	0.9	20.1516	2.0	0.1832	2.3	0.0268	1.1	0.49	170.3	1.9	170.8	3.5	177.4	45.6	170.3	1.9
SJB-1-29	371	35481	1.3	20.1284	10.9	0.1872	11.2	0.0273	2.6	0.23	173.8	4.4	174.2	18.0	180.1	255.7	173.8	4.4
SJB-1-59	283	12062	0.9	20.2023	14.3	0.1866	14.6	0.0273	2.9	0.20	173.9	4.9	173.7	23.3	171.5	334.8	173.9	4.9
SJB-1-79	293	13272	1.0	19.3836	6.5	0.1947	6.9	0.0274	2.3	0.34	174.1	4.0	180.6	11.4	267.3	148.3	174.1	4.0
SJB-1-26	223	36124	1.8	19.8274	11.5	0.1940	11.9	0.0279	2.8	0.24	177.4	5.0	180.1	19.6	215.1	268.0	177.4	5.0
SJB-1-9	1026	73685	0.7	19.9528	1.6	0.1962	3.3	0.0284	2.9	0.88	180.5	5.2	181.9	5.6	200.5	36.6	180.5	5.2
SJB-1-70	199	12838	0.9	19.8647	15.6	0.1981	15.8	0.0285	2.4	0.15	181.4	4.2	183.5	26.5	210.8	363.3	181.4	4.2
SJB-1-90	275	18932	1.5	20.0739	6.1	0.2052	6.5	0.0299	2.2	0.34	189.8	4.1	189.5	11.2	186.4	141.2	189.8	4.1
SJB-1-46	260	29200	1.2	20.8622	4.7	0.2102	5.1	0.0318	2.1	0.42	201.8	4.2	193.7	9.0	96.0	110.3	201.8	4.2
SJB-1-44	84	7040	1.7	19.7971	15.3	0.2803	16.3	0.0402	5.8	0.35	254.3	14.4	250.9	36.3	218.6	355.4	254.3	14.4
SJB-1-45	350	53038	1.6	19.7136	6.8	0.2827	7.0	0.0404	1.6	0.23	255.4	4.0	252.8	15.6	228.4	156.7	255.4	4.0
SJB-1-72	558	47665	1.2	19.2902	2.5	0.3097	2.8	0.0433	1.2	0.42	273.4	3.1	274.0	6.7	278.4	58.0	273.4	3.1
SJB-1-41	218	52162	1.9	19.0865	7.7	0.3172	7.9	0.0439	1.7	0.21	277.0	4.5	279.7	19.4	302.6	176.9	277.0	4.5
SJB-1-100	650	25845	1.6	13.1451	9.2	0.8158	11.8	0.0778	7.4	0.63	482.8	34.5	605.7	54.1	1097.0	185.0	482.8	34.5
SJB-1-6	492	45804	2.5	10.8172	2.7	2.9975	3.6	0.2352	2.4	0.67	1361.5	29.9	1407.0	27.6	1476.5	50.9	1476.5	50.9
SJB-1-27	429	260496	1.2	9.7749	0.2	3.6002	2.2	0.2552	2.2	0.99	1465.4	29.2	1549.6	17.8	1666.3	4.2	1666.3	4.2
SJB-1-21	1875	1217614	26.5	9.6552	0.1	4.2758	0.6	0.2994	0.6	0.97	1688.4	9.2	1688.7	5.2	1689.1	2.7	1689.1	2.7
SJB-1-67	1051	916482	2.1	9.3228	0.1	4.5057	1.1	0.3047	1.1	0.99	1714.3	16.4	1732.0	9.1	1753.4	2.4	1753.4	2.4
SJB-1-71	618	205726	2.0	9.2612	0.3	4.4712	1.9	0.3003	1.9	0.99	1692.9	28.3	1725.6	16.0	1765.6	5.6	1765.6	5.6
SJB-1-73	172	96680	2.2	9.2382	0.8	4.6810	5.9	0.3136	5.8	0.99	1758.6	89.7	1763.8	49.3	1770.1	14.6	1770.1	14.6
SJB-1-60	956	389077	5.0	9.0485	0.3	4.5290	2.1	0.2972	2.1	0.99	1677.5	31.3	1736.3	17.7	1807.9	4.6	1807.9	4.6
SJB-1-89	442	537265	0.8	8.7453	0.2	4.9807	1.0	0.3159	1.0	0.98	1769.7	15.5	1816.1	8.6	1869.6	3.3	1869.6	3.3
SJB-1-36	281	153522	0.9	5.7400	0.6	11.9268	3.8	0.4965	3.7	0.99	2598.8	79.3	2598.7	35.2	2598.5	10.1	2598.5	10.1

† 800 Ma cutoff used between $^{206}Pb^*/^{238}U$ and $^{206}Pb^*/^{207}Pb^*$ ages
Data reduction methods follow Gehrels et al. (2008). See also Appendix DR1.
Age uncertainties are reported at the 1-sigma level.

Table DR3: U-Th-Pb isotope composition of detrital zircons analyzed at the University of California Santa Cruz

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
TEJ-2-36	4241	21.5	0.0482	1.2	0.0651	2.6	0.0098	2.3	0.5506	62.5	1.4	68.6	5.7	--	--	62.5	1.4
TEJ-2-28	3100	7.6	0.0512	1.5	0.0760	3.6	0.0110	3.8	0.8552	70.1	2.7	66.6	5.7	--	--	70.1	2.7
TEJ-2-26	755	1.4	0.0530	3.6	0.0931	4.5	0.0127	2.4	0.4989	80.9	2.0	66.0	25.0	--	--	80.9	2.0
TEJ-2-38	1194	2.5	0.0486	2.1	0.0863	3.1	0.0130	2.4	0.3541	83.1	2.0	73.0	20.0	--	--	83.1	2.0
TEJ-2-71	951	2.3	0.0482	2.5	0.0860	3.4	0.0131	2.4	0.3043	83.8	2.0	40.0	25.0	--	--	83.8	2.0
TEJ-2-11	460	2.3	0.0502	3.0	0.0909	3.7	0.0133	2.4	0.3446	84.7	2.0	57.0	29.0	--	--	84.7	2.0
TEJ-2-40	1002	1.6	0.0519	2.1	0.0967	3.1	0.0135	2.4	0.1637	86.0	2.0	73.0	21.0	--	--	86.0	2.0
TEJ-2-35	565	3.0	0.0508	3.0	0.0945	3.8	0.0137	2.4	0.3943	87.1	2.1	88.0	27.0	--	--	87.1	2.1
TEJ-2-31	444	1.8	0.0524	3.6	0.0993	4.0	0.0138	2.4	0.0573	87.8	2.1	87.0	32.0	--	--	87.8	2.1
TEJ-2-66	926	4.6	0.0512	2.3	0.0979	3.3	0.0139	2.3	0.2150	88.5	2.0	64.0	29.0	--	--	88.5	2.0
TEJ-2-48	278	1.2	0.0489	3.9	0.0924	4.4	0.0139	2.5	0.2519	88.5	2.2	27.0	75.0	--	--	88.5	2.2
TEJ-2-91	849	4.0	0.0475	2.7	0.0921	3.6	0.0140	2.4	0.1992	89.7	2.1	72.0	34.0	--	--	89.7	2.1
TEJ-2-99	597	3.9	0.0503	3.2	0.0976	3.8	0.0141	2.3	0.1807	89.9	2.1	67.0	39.0	--	--	89.9	2.1
TEJ-2-25	291	2.4	0.0552	3.8	0.1086	4.5	0.0142	2.5	0.2444	90.0	2.2	56.0	45.0	--	--	90.0	2.2
TEJ-2-50	305	1.0	0.0490	3.5	0.0950	3.9	0.0141	2.6	0.0846	90.0	2.4	16.0	67.0	--	--	90.0	2.4
TEJ-2-5	431	5.9	0.0505	3.0	0.0983	3.7	0.0141	2.4	0.1654	90.0	2.2	20.0	41.0	--	--	90.0	2.2
TEJ-2-49	838	1.9	0.0487	2.1	0.0979	3.1	0.0145	2.3	0.2577	92.6	2.2	82.0	24.0	--	--	92.6	2.2
TEJ-2-86	624	2.6	0.0483	2.7	0.0970	3.6	0.0145	2.4	0.1796	92.8	2.2	108.0	30.0	--	--	92.8	2.2
TEJ-2-41	655	4.5	0.0514	2.1	0.1046	3.2	0.0147	2.3	0.2916	93.5	2.2	72.0	30.0	--	--	93.5	2.2
TEJ-2-84	665	2.5	0.0487	2.9	0.0979	3.5	0.0147	2.4	0.1097	93.7	2.2	76.0	28.0	--	--	93.7	2.2
TEJ-2-94	1153	2.7	0.0513	2.3	0.1039	3.4	0.0148	2.4	0.2581	94.1	2.2	72.0	25.0	--	--	94.1	2.2
TEJ-2-12	1518	2.0	0.0504	2.2	0.1013	3.3	0.0148	2.5	0.4568	94.2	2.4	82.0	14.0	--	--	94.2	2.4
TEJ-2-20	331	1.1	0.0505	3.0	0.1030	3.5	0.0148	2.4	0.1040	94.3	2.2	53.0	51.0	--	--	94.3	2.2
TEJ-2-61	714	2.2	0.0549	2.7	0.1136	3.6	0.0151	2.4	0.3254	95.5	2.3	88.0	26.0	--	--	95.5	2.3
TEJ-2-93	1617	4.7	0.0494	1.9	0.1024	2.9	0.0151	2.3	0.3083	96.6	2.2	94.0	17.0	--	--	96.6	2.2
TEJ-2-72	589	3.8	0.0477	3.1	0.1003	3.9	0.0151	2.4	0.1941	96.9	2.3	77.0	34.0	--	--	96.9	2.3
TEJ-2-21	268	0.9	0.0490	3.3	0.1019	3.9	0.0152	2.4	0.1182	97.0	2.4	52.0	52.0	--	--	97.0	2.4
TEJ-2-24	226	1.5	0.0477	4.2	0.0996	4.4	0.0152	2.6	-0.0407	97.1	2.5	59.0	64.0	--	--	97.1	2.5
TEJ-2-55	286	1.8	0.0507	4.7	0.1064	5.0	0.0156	2.5	0.1420	99.1	2.5	70.0	63.0	--	--	99.1	2.5
TEJ-2-46	601	2.7	0.0476	2.5	0.1018	3.5	0.0156	2.4	0.3262	99.6	2.4	68.0	37.0	--	--	99.6	2.4
TEJ-2-65	710	0.9	0.0704	4.1	0.1610	6.0	0.0162	3.2	0.7105	100.6	3.2	44.0	42.0	--	--	100.6	3.2
TEJ-2-70	166	2.0	0.0522	6.5	0.1116	6.7	0.0159	2.8	0.1393	101.2	2.8	30.0	110.0	--	--	101.2	2.8
TEJ-2-88	308	1.5	0.0655	5.2	0.1453	6.0	0.0163	2.6	0.4424	101.6	2.7	81.0	63.0	--	--	101.6	2.7
TEJ-2-4	440	2.4	0.0485	2.5	0.1066	3.3	0.0160	2.4	0.2171	102.1	2.4	66.0	40.0	--	--	102.1	2.4
TEJ-2-54	382	2.1	0.0519	3.5	0.1132	4.2	0.0161	2.5	0.2475	102.4	2.5	26.0	61.0	--	--	102.4	2.5

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
TEJ-2-56	383	1.2	0.0483	3.7	0.1101	4.4	0.0164	2.6	0.1745	104.8	2.7	81.0	60.0	--	--	104.8	2.7
TEJ-2-57	986	2.5	0.0489	2.5	0.1120	3.3	0.0165	2.5	0.3120	105.5	2.6	98.0	27.0	--	--	105.5	2.6
TEJ-2-63	1030	3.9	0.0474	2.3	0.1058	3.3	0.0166	2.6	0.4352	106.4	2.7	87.0	26.0	--	--	106.4	2.7
TEJ-2-53	167	2.8	0.0497	5.2	0.1166	5.7	0.0167	2.7	0.1134	106.6	2.9	28.0	110.0	--	--	106.6	2.9
TEJ-2-17	564	3.0	0.0490	2.0	0.1166	3.1	0.0173	2.6	0.3647	110.1	2.8	97.0	26.0	--	--	110.1	2.8
TEJ-2-43	467	2.2	0.0499	2.4	0.1484	3.2	0.0214	2.4	0.2181	136.1	3.2	144.0	31.0	--	--	136.1	3.2
TEJ-2-37	162	1.4	0.0556	4.3	0.1687	4.9	0.0219	2.6	0.2051	138.5	3.5	18.0	100.0	--	--	138.5	3.5
TEJ-2-76	414	2.0	0.0490	2.7	0.1478	3.7	0.0219	2.4	0.2303	139.9	3.4	155.0	43.0	--	--	139.9	3.4
TEJ-2-34	104	1.3	0.0547	4.9	0.1663	5.4	0.0223	2.9	0.2476	141.0	4.0	354.0	88.0	--	--	141.0	4.0
TEJ-2-96	158	1.6	0.0502	4.6	0.1552	5.1	0.0223	2.7	0.1874	142.1	3.9	96.0	110.0	--	--	142.1	3.9
TEJ-2-98	344	1.1	0.0498	3.0	0.1524	3.7	0.0224	2.5	0.2212	142.9	3.6	52.0	63.0	--	--	142.9	3.6
TEJ-2-1	178	1.5	0.0538	3.3	0.1657	3.9	0.0226	2.5	0.1858	143.4	3.5	49.0	76.0	--	--	143.4	3.5
TEJ-2-85	61	2.1	0.0491	7.1	0.1550	7.1	0.0225	3.0	0.0140	143.7	4.3	430.0	140.0	--	--	143.7	4.3
TEJ-2-73	200	1.5	0.0506	4.0	0.1625	4.4	0.0233	2.5	0.0155	148.4	3.7	184.0	83.0	--	--	148.4	3.7
TEJ-2-39	325	1.1	0.0500	3.0	0.1602	3.7	0.0233	2.4	0.2023	148.5	3.6	113.0	54.0	--	--	148.5	3.6
TEJ-2-6	1129	1.9	0.0504	1.3	0.1603	2.7	0.0234	2.4	0.5277	148.6	3.5	132.0	16.0	--	--	148.6	3.5
TEJ-2-18	114	0.9	0.0501	3.8	0.1622	4.4	0.0236	2.6	0.1819	150.0	3.9	120.0	100.0	--	--	150.0	3.9
TEJ-2-58	2410	1.1	0.0541	1.5	0.1749	3.3	0.0238	3.3	0.7704	150.9	4.9	138.0	19.0	--	--	150.9	4.9
TEJ-2-2	300	6.7	0.0509	2.4	0.1703	3.2	0.0240	2.4	0.1434	152.3	3.7	121.0	43.0	--	--	152.3	3.7
TEJ-2-42	733	1.4	0.0496	1.9	0.1627	2.9	0.0239	2.4	0.3377	152.3	3.6	142.0	31.0	--	--	152.3	3.6
TEJ-2-19	237	1.7	0.0498	2.6	0.1666	3.4	0.0240	2.4	0.1969	152.7	3.7	132.0	50.0	--	--	152.7	3.7
TEJ-2-87	271	3.0	0.0547	3.3	0.1815	4.0	0.0243	2.5	0.1764	153.7	3.8	148.0	52.0	--	--	153.7	3.8
TEJ-2-16	48	1.5	0.0653	8.6	0.2150	8.8	0.0247	3.2	0.1679	154.1	5.1	450.0	120.0	--	--	154.1	5.1
TEJ-2-52	150	1.6	0.0499	4.2	0.1668	4.7	0.0243	2.5	0.0661	154.5	3.8	-20.0	120.0	--	--	154.5	3.8
TEJ-2-13	525	1.5	0.0502	1.9	0.1686	3.0	0.0244	2.3	0.3792	154.9	3.6	124.0	29.0	--	--	154.9	3.6
TEJ-2-33	143	1.2	0.0504	4.0	0.1690	4.5	0.0244	2.5	0.1395	155.1	3.9	85.0	92.0	--	--	155.1	3.9
TEJ-2-30	153	1.8	0.0532	4.7	0.1805	5.0	0.0247	2.6	0.0635	156.3	4.0	147.0	86.0	--	--	156.3	4.0
TEJ-2-7	167	1.3	0.0503	3.4	0.1720	4.0	0.0248	2.5	0.2184	157.8	3.9	118.0	76.0	--	--	157.8	3.9
TEJ-2-44	535	2.4	0.0495	2.2	0.1701	3.1	0.0249	2.3	0.2840	158.3	3.6	116.0	37.0	--	--	158.3	3.6
TEJ-2-79	118	1.5	0.0606	5.6	0.2080	5.8	0.0254	2.7	0.1014	159.3	4.3	163.0	100.0	--	--	159.3	4.3
TEJ-2-74	222	2.0	0.0589	3.6	0.2061	4.3	0.0255	2.5	0.2354	160.2	4.0	92.0	67.0	--	--	160.2	4.0
TEJ-2-78	271	0.8	0.0540	3.5	0.1888	4.3	0.0253	2.6	0.2585	160.2	4.2	68.0	83.0	--	--	160.2	4.2
TEJ-2-32	467	1.7	0.0592	3.4	0.2076	4.3	0.0255	2.4	0.4293	160.4	3.8	156.0	32.0	--	--	160.4	3.8
TEJ-2-59	413	1.5	0.0487	2.5	0.1694	3.2	0.0253	2.4	0.1879	161.1	3.8	176.0	46.0	--	--	161.1	3.8
TEJ-2-62	387	1.1	0.0512	2.5	0.1782	3.5	0.0254	2.4	0.3094	161.2	3.8	95.0	60.0	--	--	161.2	3.8
TEJ-2-92	437	1.3	0.0484	2.9	0.1695	3.5	0.0254	2.5	0.2177	161.9	4.1	100.0	64.0	--	--	161.9	4.1
TEJ-2-29	903	1.6	0.0498	1.5	0.1735	2.7	0.0255	2.3	0.3376	162.1	3.7	162.0	21.0	--	--	162.1	3.7

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma	Best age†	± Ma
TEJ-2-83	363	1.3	0.0504	2.6	0.1770	3.5	0.0256	2.4	0.3039	162.4	3.9	110.0	54.0	--	--	162.4	3.9
TEJ-2-15	970	2.3	0.0510	1.4	0.1799	2.6	0.0256	2.3	0.2173	162.4	3.7	162.0	18.0	--	--	162.4	3.7
TEJ-2-90	1057	2.1	0.0501	1.8	0.1765	2.9	0.0256	2.3	0.3703	162.7	3.7	161.0	24.0	--	--	162.7	3.7
TEJ-2-23	146	1.4	0.0495	3.6	0.1769	4.2	0.0256	2.6	0.0998	162.9	4.2	125.0	76.0	--	--	162.9	4.2
TEJ-2-89	665	1.4	0.0520	2.5	0.1837	3.3	0.0259	2.4	0.3056	164.2	3.8	147.0	39.0	--	--	164.2	3.8
TEJ-2-64	925	1.6	0.0515	1.9	0.1850	3.4	0.0260	2.3	0.6910	165.0	3.8	156.0	21.0	--	--	165.0	3.8
TEJ-2-69	602	1.4	0.0497	2.0	0.1791	3.0	0.0261	2.3	0.2757	165.8	3.7	121.0	30.0	--	--	165.8	3.7
TEJ-2-97	259	2.4	0.0504	3.0	0.1839	3.8	0.0263	2.5	0.2435	167.1	4.1	126.0	60.0	--	--	167.1	4.1
TEJ-2-45	1065	1.9	0.0506	1.5	0.1842	2.7	0.0263	2.3	0.3728	167.1	3.8	167.0	22.0	--	--	167.1	3.8
TEJ-2-81	583	2.8	0.0518	2.5	0.1929	3.5	0.0271	2.4	0.4681	171.9	4.0	150.0	31.0	--	--	171.9	4.0
TEJ-2-100	308	2.0	0.0515	2.7	0.1923	3.7	0.0273	2.4	0.2209	173.5	4.2	126.0	56.0	--	--	173.5	4.2
TEJ-2-8	583	2.2	0.0492	1.6	0.1858	2.7	0.0274	2.3	0.2637	174.5	4.0	167.0	28.0	--	--	174.5	4.0
TEJ-2-22	229	1.3	0.0493	2.8	0.1861	3.8	0.0279	2.4	0.3469	177.7	4.3	165.0	64.0	--	--	177.7	4.3
TEJ-2-47	225	1.5	0.0513	2.7	0.1991	3.6	0.0281	2.5	0.1833	178.5	4.3	148.0	71.0	--	--	178.5	4.3
TEJ-2-10	1586	1.7	0.0508	1.1	0.1980	2.5	0.0284	2.3	0.4478	180.4	4.0	180.4	13.0	--	--	180.4	4.0
TEJ-2-27	224	2.9	0.0500	3.0	0.1989	4.1	0.0290	2.9	0.4770	184.3	5.2	209.0	56.0	--	--	184.3	5.2
TEJ-2-77	364	1.8	0.0492	2.6	0.1971	3.5	0.0291	2.4	0.1669	184.9	4.4	175.0	57.0	--	--	184.9	4.4
TEJ-2-9	133	2.6	0.0490	3.5	0.2033	4.1	0.0297	2.5	0.2126	189.0	4.7	172.0	79.0	--	--	189.0	4.7
TEJ-2-95	663	1.9	0.0519	1.9	0.2772	3.0	0.0392	2.3	0.3549	247.6	5.7	193.0	43.0	--	--	247.6	5.7
TEJ-2-80	379	3.4	0.0526	2.5	0.2949	3.7	0.0402	3.2	0.4113	253.7	8.1	162.0	64.0	--	--	253.7	8.1
TEJ-2-82	164	4.1	0.0979	2.0	2.4260	3.3	0.1797	2.3	0.4931	1037.2	23.5	1029.0	52.0	1250.0	71.0	1250.0	71.0
TEJ-2-67	139	2.7	0.0918	1.1	3.0180	2.7	0.2377	2.6	0.7622	1368.3	33.9	1392.0	46.0	1469.0	54.0	1469.0	54.0
TEJ-2-3	1351	11.6	0.1013	0.6	1.9500	3.0	0.1400	2.9	0.9597	811.1	22.4	1083.0	20.0	1633.0	13.0	1633.0	13.0
TEJ-2-75	460	24.9	0.1035	0.6	4.2920	2.3	0.3021	2.3	0.6816	1703.3	37.4	1687.2	26.0	1663.0	19.0	1663.0	19.0
TEJ-2-14	285	9.1	0.1063	0.8	5.0750	2.8	0.3450	2.7	0.9000	1933.8	51.0	1815.0	29.0	1714.0	24.0	1714.0	24.0
BUT-1-74	208	2.5	0.0472	5.9	0.0822	6.1	0.0128	2.1	-0.0070	81.9	1.7	79.0	91.0	--	--	81.9	1.7
BUT-1-81	147	2.2	0.0506	7.1	0.0908	7.3	0.0129	2.2	-0.0276	82.5	1.9	50.0	130.0	--	--	82.5	1.9
BUT-1-59	483	3.4	0.0492	3.9	0.0902	4.2	0.0131	1.7	0.0420	83.8	1.4	115.0	41.0	--	--	83.8	1.4
BUT-1-63	182	2.7	0.0494	6.5	0.0914	6.3	0.0136	1.9	0.0064	87.1	1.7	156.0	90.0	--	--	87.1	1.7
BUT-1-49	849	2.5	0.0488	3.1	0.0914	3.7	0.0136	1.3	0.2251	87.2	1.2	78.0	28.0	--	--	87.2	1.2
BUT-1-21	715	2.7	0.0495	3.0	0.0930	3.7	0.0137	1.4	0.2809	87.2	1.2	81.0	29.0	--	--	87.2	1.2
BUT-1-67	999	5.3	0.0480	2.7	0.0907	3.3	0.0137	1.4	0.1070	87.4	1.2	91.0	24.0	--	--	87.4	1.2
BUT-1-43	1384	2.2	0.0492	2.4	0.0949	3.2	0.0143	1.5	0.4776	91.2	1.3	86.0	18.0	--	--	91.2	1.3
BUT-1-23	1490	3.3	0.0576	2.6	0.1152	3.4	0.0145	1.4	0.4355	91.6	1.3	96.0	15.0	--	--	91.6	1.3
BUT-1-40	616	2.8	0.0474	3.2	0.0937	3.8	0.0143	1.3	0.1167	91.7	1.2	86.0	36.0	--	--	91.7	1.2
BUT-1-42	362	2.9	0.0470	4.3	0.0929	4.6	0.0144	1.5	0.1197	92.3	1.4	41.0	66.0	--	--	92.3	1.4

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma	Best age†	± Ma
BUT-1-11	48	1.5	0.0528	12.3	0.0990	12.1	0.0146	3.3	0.0467	92.5	3.1	690.0	160.0	--	--	92.5	3.1
BUT-1-85	127	1.2	0.0470	7.2	0.0944	7.2	0.0145	2.4	0.0323	93.0	2.3	280.0	110.0	--	--	93.0	2.3
BUT-1-48	815	3.3	0.0489	3.1	0.0994	3.6	0.0149	1.3	0.1445	95.2	1.2	53.0	36.0	--	--	95.2	1.2
BUT-1-32	582	3.8	0.0477	3.6	0.0983	4.0	0.0149	1.3	0.1683	95.6	1.3	73.0	40.0	--	--	95.6	1.3
BUT-1-82	329	3.0	0.0465	4.7	0.0938	5.1	0.0149	1.7	0.1617	95.6	1.6	31.0	94.0	--	--	95.6	1.6
BUT-1-31	258	1.3	0.0489	5.1	0.1015	5.4	0.0152	2.1	0.0015	96.9	2.1	23.0	100.0	--	--	96.9	2.1
BUT-1-76	885	3.4	0.0483	2.9	0.1008	3.5	0.0152	1.2	0.1359	97.3	1.2	69.0	34.0	--	--	97.3	1.2
BUT-1-91	100	6.6	0.0486	7.0	0.1032	7.0	0.0153	2.3	0.0041	98.1	2.3	140.0	130.0	--	--	98.1	2.3
BUT-1-60	823	1.8	0.0485	2.9	0.1031	3.4	0.0154	1.3	0.0885	98.3	1.3	98.0	30.0	--	--	98.3	1.3
BUT-1-68	165	5.3	0.0518	5.6	0.1098	5.8	0.0156	1.9	0.0155	99.1	1.9	113.0	100.0	--	--	99.1	1.9
BUT-1-19	349	2.5	0.0486	3.9	0.1063	4.2	0.0156	1.4	0.0089	99.8	1.4	100.0	47.0	--	--	99.8	1.4
BUT-1-30	1371	5.1	0.0482	2.3	0.1052	3.0	0.0156	1.3	0.4619	99.8	1.3	101.0	17.0	--	--	99.8	1.3
BUT-1-53	1130	5.3	0.0482	2.7	0.1032	3.7	0.0157	1.7	0.3541	100.1	1.7	78.0	33.0	--	--	100.1	1.7
BUT-1-88	62	2.8	0.0489	10.0	0.1038	9.6	0.0161	2.9	0.1142	102.7	3.0	540.0	150.0	--	--	102.7	3.0
BUT-1-50	146	2.3	0.0531	6.4	0.1228	6.8	0.0166	2.2	0.0421	105.4	2.3	200.0	120.0	--	--	105.4	2.3
BUT-1-87	710	1.7	0.0493	3.2	0.1114	3.7	0.0165	1.3	0.1562	105.5	1.4	80.0	38.0	--	--	105.5	1.4
BUT-1-9	246	5.5	0.0459	4.6	0.1120	4.9	0.0172	1.7	0.1874	110.4	1.9	54.0	81.0	--	--	110.4	1.9
BUT-1-92	570	5.6	0.0482	2.7	0.1200	3.5	0.0179	1.4	0.3886	114.6	1.6	123.0	34.0	--	--	114.6	1.6
BUT-1-24	689	5.3	0.0497	2.6	0.1364	3.2	0.0198	1.3	0.1875	126.2	1.7	98.0	38.0	--	--	126.2	1.7
BUT-1-73	45	1.7	0.0561	10.0	0.1620	9.9	0.0210	3.1	0.1671	132.7	4.2	630.0	190.0	--	--	132.7	4.2
BUT-1-79	130	1.3	0.0493	6.1	0.1427	6.3	0.0210	2.0	0.0535	133.7	2.7	310.0	110.0	--	--	133.7	2.7
BUT-1-72	55	1.9	0.0487	9.9	0.1440	9.7	0.0220	2.7	-0.0204	140.4	3.8	720.0	140.0	--	--	140.4	3.8
BUT-1-69	58	2.8	0.0536	8.4	0.1600	8.1	0.0222	2.6	0.0573	140.6	3.7	610.0	130.0	--	--	140.6	3.7
BUT-1-80	104	1.3	0.0485	7.0	0.1493	7.4	0.0229	2.4	0.0378	146.0	3.5	120.0	200.0	--	--	146.0	3.5
BUT-1-58	490	2.3	0.0484	2.9	0.1536	3.5	0.0229	1.4	0.1833	146.1	2.0	111.0	49.0	--	--	146.1	2.0
BUT-1-56	153	2.3	0.0582	5.0	0.1891	5.1	0.0233	1.9	0.0839	146.7	2.8	237.0	95.0	--	--	146.7	2.8
BUT-1-86	132	1.8	0.0488	5.1	0.1533	5.3	0.0230	1.8	0.0867	146.9	2.7	210.0	110.0	--	--	146.9	2.7
BUT-1-22	106	1.3	0.0482	6.0	0.1576	6.2	0.0232	1.9	0.0607	148.2	2.8	150.0	150.0	--	--	148.2	2.8
BUT-1-37	226	1.7	0.0645	7.3	0.2120	8.0	0.0240	2.1	0.3580	149.6	3.2	90.0	110.0	--	--	149.6	3.2
BUT-1-2	112	1.3	0.0473	5.3	0.1493	5.6	0.0235	1.8	0.1476	149.9	2.7	270.0	110.0	--	--	149.9	2.7
BUT-1-64	98	1.1	0.0622	6.1	0.2100	6.2	0.0241	2.2	0.0486	151.1	3.3	170.0	130.0	--	--	151.1	3.3
BUT-1-17	1382	1.4	0.0506	2.0	0.1671	2.9	0.0238	1.3	0.4418	151.3	1.9	146.0	19.0	--	--	151.3	1.9
BUT-1-77	298	1.7	0.0487	3.5	0.1629	4.1	0.0241	1.4	0.1811	153.8	2.2	54.0	88.0	--	--	153.8	2.2
BUT-1-62	693	0.8	0.0525	2.7	0.1755	3.2	0.0244	1.4	0.3314	154.6	2.1	132.0	31.0	--	--	154.6	2.1
BUT-1-61	371	1.0	0.0494	3.4	0.1648	3.8	0.0244	1.3	0.1243	155.4	2.0	101.0	60.0	--	--	155.4	2.0
BUT-1-10	151	1.8	0.0522	5.2	0.1786	6.2	0.0249	1.8	0.3183	157.7	2.9	173.0	97.0	--	--	157.7	2.9
BUT-1-90	37	1.3	0.0490	10.4	0.1680	10.1	0.0249	3.1	0.0680	158.8	5.0	1080.0	110.0	--	--	158.8	5.0

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios: $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages: $^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma	Best age†	± Ma
BUT-1-35	1003	1.8	0.0503	2.2	0.1733	2.9	0.0250	1.2	0.2389	158.9	1.9	136.0	30.0	--	--	158.9	1.9
BUT-1-66	108	1.7	0.0466	6.2	0.1592	6.3	0.0250	1.9	0.0301	159.4	3.1	330.0	140.0	--	--	159.4	3.1
BUT-1-65	300	2.0	0.0486	3.3	0.1671	4.0	0.0251	1.5	0.2737	159.7	2.4	116.0	81.0	--	--	159.7	2.4
BUT-1-18	153	1.5	0.0504	5.0	0.1794	5.1	0.0255	1.7	0.0613	161.8	2.7	120.0	120.0	--	--	161.8	2.7
BUT-1-75	149	2.1	0.0499	4.6	0.1763	5.0	0.0255	1.8	0.1696	161.9	2.9	172.0	110.0	--	--	161.9	2.9
BUT-1-84	756	1.3	0.0498	2.6	0.1738	3.3	0.0256	1.2	0.2791	163.0	2.0	141.0	36.0	--	--	163.0	2.0
BUT-1-94	98	0.9	0.0493	5.1	0.1762	5.6	0.0257	1.9	0.1957	163.5	3.2	180.0	140.0	--	--	163.5	3.2
BUT-1-25	322	1.4	0.0501	3.4	0.1756	3.9	0.0257	1.4	0.2597	163.5	2.4	140.0	63.0	--	--	163.5	2.4
BUT-1-97	177	4.4	0.0485	4.5	0.1720	4.7	0.0257	1.5	0.0877	164.0	2.5	137.0	94.0	--	--	164.0	2.5
BUT-1-54	44	2.2	0.0543	9.0	0.1960	9.2	0.0260	3.3	0.0605	164.5	5.5	810.0	170.0	--	--	164.5	5.5
BUT-1-93	345	1.9	0.0501	3.0	0.1800	3.4	0.0260	1.3	0.1067	165.1	2.2	127.0	61.0	--	--	165.1	2.2
BUT-1-99	382	2.6	0.0497	3.2	0.1808	3.7	0.0260	1.4	0.0941	165.6	2.3	152.0	57.0	--	--	165.6	2.3
BUT-1-33	664	2.3	0.0495	2.8	0.1786	3.4	0.0261	1.3	0.2104	165.8	2.2	132.0	41.0	--	--	165.8	2.2
BUT-1-78	104	2.8	0.0481	6.2	0.1720	6.4	0.0261	2.0	-0.0151	166.3	3.4	310.0	130.0	--	--	166.3	3.4
BUT-1-8	394	1.3	0.0489	3.1	0.1766	3.6	0.0262	1.3	0.1361	167.0	2.2	69.0	61.0	--	--	167.0	2.2
BUT-1-13	525	1.4	0.0533	2.8	0.1956	3.5	0.0268	1.6	0.4108	169.8	2.7	129.0	46.0	--	--	169.8	2.7
BUT-1-45	690	2.7	0.0489	2.5	0.1821	3.1	0.0267	1.2	0.2509	169.9	2.0	146.0	36.0	--	--	169.9	2.0
BUT-1-4	68	0.6	0.0468	6.4	0.1730	6.9	0.0266	2.2	0.1617	170.0	3.8	290.0	200.0	--	--	170.0	3.8
BUT-1-55	88	1.4	0.0907	6.6	0.3530	7.4	0.0282	2.2	0.3107	170.2	3.9	250.0	140.0	--	--	170.2	3.9
BUT-1-57	498	2.8	0.0496	2.8	0.1821	3.5	0.0268	1.3	0.1996	170.3	2.2	169.0	43.0	--	--	170.3	2.2
BUT-1-71	493	2.4	0.0502	2.8	0.1857	3.4	0.0270	1.3	0.2896	171.3	2.3	127.0	47.0	--	--	171.3	2.3
BUT-1-28	205	2.1	0.0506	4.2	0.1884	4.4	0.0272	1.5	0.0718	172.5	2.6	148.0	86.0	--	--	172.5	2.6
BUT-1-6	213	1.7	0.0482	3.7	0.1828	4.4	0.0274	1.6	0.3030	174.7	2.8	203.0	84.0	--	--	174.7	2.8
BUT-1-98	558	2.1	0.0506	2.6	0.1939	3.2	0.0278	1.3	0.3046	176.4	2.3	138.0	44.0	--	--	176.4	2.3
BUT-1-36	427	1.9	0.0510	2.9	0.2030	3.5	0.0288	1.5	0.1969	182.9	2.7	92.0	68.0	--	--	182.9	2.7
BUT-1-5	276	1.7	0.0514	3.1	0.2082	3.8	0.0299	1.7	0.3159	189.4	3.2	155.0	65.0	--	--	189.4	3.2
BUT-1-95	168	1.6	0.0493	3.7	0.2102	4.2	0.0309	1.6	0.3236	196.2	3.2	100.0	120.0	--	--	196.2	3.2
BUT-1-15	346	1.7	0.0508	3.0	0.2239	3.6	0.0319	1.5	0.2832	202.4	3.0	136.0	64.0	--	--	202.4	3.0
BUT-1-70	103	5.7	0.0598	4.7	0.2800	5.0	0.0338	2.0	0.1253	211.9	4.2	220.0	130.0	--	--	211.9	4.2
BUT-1-34	848	2.2	0.0521	2.1	0.2683	2.9	0.0374	1.3	0.3141	236.4	3.0	217.0	31.0	--	--	236.4	3.0
BUT-1-12	106	3.0	0.0534	4.5	0.2780	4.7	0.0384	1.8	0.0137	241.9	4.4	422.0	110.0	--	--	241.9	4.4
BUT-1-27	97	4.1	0.0510	4.5	0.2760	4.7	0.0385	1.9	0.1207	243.8	4.6	418.0	110.0	--	--	243.8	4.6
BUT-1-52	220	2.3	0.0514	3.5	0.2708	4.1	0.0387	1.4	0.2010	244.6	3.5	143.0	120.0	--	--	244.6	3.5
BUT-1-44	258	1.8	0.0514	3.1	0.2724	3.7	0.0388	1.5	0.2253	245.0	3.7	218.0	74.0	--	--	245.0	3.7
BUT-1-100	402	1.9	0.0505	2.8	0.2768	3.4	0.0397	1.3	0.1615	251.1	3.3	243.0	54.0	--	--	251.1	3.3
BUT-1-96	61	3.6	0.0529	5.5	0.2910	5.5	0.0402	2.1	0.1834	253.3	5.3	600.0	120.0	--	--	253.3	5.3
BUT-1-14	296	3.2	0.0514	2.9	0.2833	3.4	0.0402	1.4	0.2550	253.8	3.5	193.0	74.0	--	--	253.8	3.5

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
BUT-1-38	346	2.9	0.0511	2.7	0.2915	3.3	0.0412	1.3	0.0548	260.6	3.3	214.0	67.0	--	--	260.6	3.3
BUT-1-41	178	6.8	0.0525	3.6	0.3011	4.0	0.0414	1.5	0.2066	261.2	3.9	259.0	78.0	--	--	261.2	3.9
BUT-1-29	169	2.9	0.0497	3.4	0.3012	4.0	0.0429	1.6	0.1656	271.4	4.3	90.0	140.0	--	--	271.4	4.3
BUT-1-26	536	3.2	0.0527	2.3	0.3121	2.9	0.0431	1.4	0.3638	271.8	3.7	238.0	42.0	--	--	271.8	3.7
BUT-1-3	173	2.4	0.0543	2.9	0.3242	3.7	0.0435	1.3	0.2352	273.6	3.5	227.0	83.0	--	--	273.6	3.5
BUT-1-39	632	2.4	0.0523	2.1	0.3172	3.0	0.0443	1.5	0.4276	279.3	4.2	240.0	38.0	--	--	279.3	4.2
BUT-1-16	448	3.7	0.0522	2.3	0.3190	3.1	0.0444	1.3	0.2770	280.2	3.5	223.0	55.0	--	--	280.2	3.5
BUT-1-7	143	2.5	0.0581	3.1	0.5660	3.7	0.0708	1.4	-0.0011	439.6	6.0	326.0	95.0	--	--	439.6	6.0
BUT-1-1	505	3.5	0.0759	1.6	1.5770	2.7	0.1517	1.4	0.7613	903.6	12.1	938.0	27.0	1059.0	63.0	1059.0	63.0
BUT-1-46	107	2.1	0.0767	2.2	1.8960	3.1	0.1797	1.6	0.5313	1063.1	16.7	1122.0	82.0	1466.0	120.0	1466.0	120.0
BUT-1-47	181	3.4	0.1096	1.6	5.1220	2.7	0.3394	1.3	0.7013	1895.8	25.1	1783.0	45.0	1700.0	68.0	1700.0	68.0
BUT-1-83	431	3.7	0.1053	1.5	4.8800	2.9	0.3397	1.5	0.8583	1906.6	27.9	1784.0	27.0	1708.0	43.0	1708.0	43.0
BUT-1-89	173	8.0	0.1071	1.7	4.7490	2.7	0.3226	1.5	0.7768	1808.7	27.2	1760.0	36.0	1717.0	64.0	1717.0	64.0
BUT-1-51	178	5.8	0.1072	1.7	4.7290	2.7	0.3184	1.4	0.6909	1785.4	24.4	1761.0	46.0	1753.0	62.0	1753.0	62.0
BUT-1-20	58	2.5	0.2071	1.6	15.9700	2.7	0.5557	1.5	0.7374	2832.5	52.3	2837.0	41.0	2840.0	47.0	2840.0	47.0
BUT-2-73	1196	5.4	0.0495	2.4	0.0807	3.6	0.0121	2.5	0.3169	77.2	1.9	60.0	23.0	--	--	77.2	1.9
BUT-2-90	1352	3.4	0.0485	2.5	0.0839	3.8	0.0127	2.6	0.4719	81.4	2.1	85.0	16.0	--	--	81.4	2.1
BUT-2-49	535	4.2	0.0541	5.2	0.0973	5.8	0.0132	2.9	0.0367	83.6	2.4	31.0	50.0	--	--	83.6	2.4
BUT-2-66	338	1.9	0.0525	4.6	0.0991	5.1	0.0138	2.6	0.0366	88.0	2.3	85.0	56.0	--	--	88.0	2.3
BUT-2-82	455	7.2	0.0480	3.8	0.0904	4.5	0.0138	2.6	0.0947	88.3	2.3	90.0	41.0	--	--	88.3	2.3
BUT-2-30	440	3.3	0.0461	3.7	0.0870	4.8	0.0138	3.2	0.4225	88.5	2.8	50.0	55.0	--	--	88.5	2.8
BUT-2-92	4190	5.1	0.0481	1.6	0.0915	3.2	0.0139	2.4	0.3858	88.6	2.1	57.0	13.0	--	--	88.6	2.1
BUT-2-70	805	4.0	0.0483	2.7	0.0927	3.9	0.0140	2.4	0.1817	89.2	2.2	103.0	25.0	--	--	89.2	2.2
BUT-2-97	1167	2.8	0.0502	2.6	0.0946	4.0	0.0140	2.8	0.4971	89.3	2.5	73.0	23.0	--	--	89.3	2.5
BUT-2-63	1833	3.1	0.0474	2.0	0.0915	3.4	0.0141	2.5	0.4395	90.4	2.2	91.3	15.0	--	--	90.4	2.2
BUT-2-93	607	6.2	0.0488	3.7	0.0955	4.5	0.0142	2.6	0.1746	90.5	2.4	48.0	43.0	--	--	90.5	2.4
BUT-2-58	212	1.3	0.0628	5.7	0.1251	6.3	0.0144	2.8	0.2276	90.6	2.6	10.0	84.0	--	--	90.6	2.6
BUT-2-89	1373	10.0	0.0484	2.3	0.0933	3.5	0.0142	2.4	0.3320	90.7	2.2	76.0	20.0	--	--	90.7	2.2
BUT-2-17	221	3.8	0.0490	5.3	0.0956	5.6	0.0142	2.9	0.1038	90.8	2.6	53.0	98.0	--	--	90.8	2.6
BUT-2-38	533	5.4	0.0484	3.3	0.0957	4.2	0.0144	2.6	-0.0016	92.0	2.4	57.0	53.0	--	--	92.0	2.4
BUT-2-86	251	2.1	0.0469	4.5	0.0949	5.1	0.0145	2.6	0.0733	93.1	2.4	-27.0	110.0	--	--	93.1	2.4
BUT-2-94	234	1.4	0.0465	5.6	0.0925	5.9	0.0146	2.8	0.0449	93.7	2.6	103.0	83.0	--	--	93.7	2.6
BUT-2-81	2476	3.1	0.0487	1.8	0.0985	3.2	0.0147	2.3	0.3909	93.8	2.2	91.2	13.0	--	--	93.8	2.2
BUT-2-53	1104	1.9	0.0483	2.5	0.0983	3.7	0.0148	2.4	0.1720	94.9	2.3	72.0	25.0	--	--	94.9	2.3
BUT-2-13	1999	0.6	0.0510	2.0	0.1045	3.3	0.0149	2.4	0.2639	94.9	2.2	91.6	15.0	--	--	94.9	2.2
BUT-2-52	128	1.9	0.0478	6.5	0.0988	6.8	0.0149	3.1	0.0114	95.4	3.0	20.0	140.0	--	--	95.4	3.0

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
BUT-2-23	217	2.9	0.0461	5.2	0.0958	5.8	0.0150	3.0	0.1083	96.3	2.9	125.0	110.0	--	--	96.3	2.9
BUT-2-74	486	6.1	0.0470	3.6	0.0971	4.4	0.0150	2.5	0.1001	96.3	2.4	33.0	52.0	--	--	96.3	2.4
BUT-2-25	133	1.4	0.0488	6.6	0.1035	6.9	0.0153	3.0	0.0747	97.5	3.0	296.0	110.0	--	--	97.5	3.0
BUT-2-44	330	2.9	0.0498	4.2	0.1056	4.7	0.0154	2.6	0.0334	98.2	2.6	56.0	68.0	--	--	98.2	2.6
BUT-2-3	196	1.4	0.0484	5.2	0.1023	5.4	0.0154	2.9	0.0506	98.3	2.8	52.0	100.0	--	--	98.3	2.8
BUT-2-56	206	2.6	0.0471	4.9	0.1012	5.4	0.0154	2.8	0.1359	98.9	2.8	-9.0	96.0	--	--	98.9	2.8
BUT-2-21	1068	3.2	0.0469	2.8	0.0998	3.8	0.0154	2.5	0.2339	98.9	2.5	94.0	32.0	--	--	98.9	2.5
BUT-2-84	262	4.1	0.0477	4.6	0.1008	5.3	0.0155	2.6	0.1473	99.3	2.6	81.0	76.0	--	--	99.3	2.6
BUT-2-26	144	1.8	0.0471	6.6	0.1013	6.8	0.0155	3.0	0.0006	99.4	3.0	304.0	92.0	--	--	99.4	3.0
BUT-2-6	554	5.8	0.0480	3.8	0.1030	4.5	0.0156	2.6	0.1371	99.5	2.6	160.0	34.0	--	--	99.5	2.6
BUT-2-12	182	2.2	0.0480	5.4	0.1023	6.0	0.0156	2.8	0.1100	99.7	2.8	40.0	110.0	--	--	99.7	2.8
BUT-2-64	168	6.1	0.0503	5.2	0.1102	6.0	0.0159	2.8	0.2470	101.3	2.9	85.0	110.0	--	--	101.3	2.9
BUT-2-4	425	4.1	0.0480	3.5	0.1037	4.4	0.0159	2.5	0.1935	101.4	2.6	86.0	55.0	--	--	101.4	2.6
BUT-2-8	192	3.4	0.0474	5.3	0.1027	5.7	0.0160	2.8	-0.0559	102.1	2.8	-50.0	120.0	--	--	102.1	2.8
BUT-2-36	214	1.9	0.0473	4.9	0.1039	5.4	0.0160	2.8	0.0868	102.1	2.8	20.0	96.0	--	--	102.1	2.8
BUT-2-78	457	4.8	0.0831	10.5	0.1880	11.7	0.0167	3.3	0.5928	102.3	3.6	33.0	60.0	--	--	102.3	3.6
BUT-2-40	103	1.3	0.0477	8.6	0.1106	8.6	0.0164	3.5	-0.0422	104.7	3.7	250.0	150.0	--	--	104.7	3.7
BUT-2-99	414	2.1	0.0530	4.5	0.1217	5.3	0.0166	2.7	0.1325	105.2	2.9	27.0	75.0	--	--	105.2	2.9
BUT-2-19	73	3.9	0.0487	9.7	0.1120	9.8	0.0166	3.6	0.0640	106.1	3.9	390.0	140.0	--	--	106.1	3.9
BUT-2-10	155	2.5	0.0462	5.8	0.1058	6.2	0.0166	2.7	-0.0008	106.6	2.9	140.0	110.0	--	--	106.6	2.9
BUT-2-7	79	2.3	0.0521	9.4	0.1250	9.6	0.0175	3.4	0.0214	111.2	3.9	190.0	130.0	--	--	111.2	3.9
BUT-2-91	245	5.9	0.0549	4.2	0.1661	4.8	0.0221	2.6	0.1224	139.7	3.7	46.0	87.0	--	--	139.7	3.7
BUT-2-88	55	2.0	0.0534	8.1	0.1620	8.6	0.0224	3.4	0.1230	142.1	4.8	656.0	100.0	--	--	142.1	4.8
BUT-2-65	46	2.8	0.0535	9.5	0.1620	9.3	0.0229	3.4	-0.0102	144.9	5.0	570.0	120.0	--	--	144.9	5.0
BUT-2-79	121	1.2	0.0824	7.4	0.2720	8.5	0.0238	2.8	0.3674	145.0	4.2	307.0	89.0	--	--	145.0	4.2
BUT-2-48	141	1.1	0.0519	5.2	0.1658	5.2	0.0235	3.0	0.0743	149.1	4.5	119.0	110.0	--	--	149.1	4.5
BUT-2-69	105	1.6	0.0518	6.4	0.1670	7.2	0.0238	2.9	0.2052	151.2	4.4	310.0	110.0	--	--	151.2	4.4
BUT-2-55	352	2.2	0.0481	3.3	0.1596	4.1	0.0239	2.5	0.0685	152.3	3.8	76.0	83.0	--	--	152.3	3.8
BUT-2-16	80	1.9	0.0519	6.6	0.1650	6.7	0.0242	3.4	0.1133	153.4	5.1	440.0	110.0	--	--	153.4	5.1
BUT-2-54	59	1.1	0.0488	7.6	0.1650	7.9	0.0241	3.2	0.1005	153.8	4.9	480.0	150.0	--	--	153.8	4.9
BUT-2-96	331	1.5	0.0499	3.6	0.1655	4.5	0.0244	2.7	0.2103	155.5	4.1	156.0	64.0	--	--	155.5	4.1
BUT-2-61	481	1.1	0.0488	2.9	0.1650	4.0	0.0246	2.5	0.1747	156.7	3.9	120.0	55.0	--	--	156.7	3.9
BUT-2-60	238	1.8	0.0484	3.9	0.1659	4.8	0.0248	2.6	0.1247	158.0	4.1	145.0	64.0	--	--	158.0	4.1
BUT-2-72	294	2.3	0.0613	6.2	0.2150	7.4	0.0254	2.6	0.4724	159.5	4.2	84.0	59.0	--	--	159.5	4.2
BUT-2-37	107	2.6	0.0511	5.5	0.1768	6.2	0.0252	2.9	0.1224	160.2	4.6	170.0	150.0	--	--	160.2	4.6
BUT-2-77	445	1.6	0.0499	2.8	0.1724	3.9	0.0252	2.5	0.2058	160.2	3.9	124.0	58.0	--	--	160.2	3.9
BUT-2-98	431	1.1	0.0492	2.8	0.1706	4.0	0.0252	2.5	0.2750	160.6	4.0	151.0	51.0	--	--	160.6	4.0

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
BUT-2-28	601	2.1	0.0499	2.4	0.1722	3.6	0.0253	2.4	0.1973	160.9	3.9	130.0	38.0	--	--	160.9	3.9
BUT-2-29	124	1.4	0.0498	4.8	0.1732	5.5	0.0253	2.7	0.1625	161.2	4.4	110.0	140.0	--	--	161.2	4.4
BUT-2-67	131	1.4	0.0519	5.4	0.1812	6.1	0.0255	2.8	0.0465	161.7	4.6	281.0	99.0	--	--	161.7	4.6
BUT-2-9	92	2.0	0.0489	5.9	0.1760	6.8	0.0255	3.1	0.1449	162.2	5.0	250.0	130.0	--	--	162.2	5.0
BUT-2-1	533	1.8	0.0506	2.4	0.1795	3.7	0.0257	2.4	0.1791	163.1	3.9	170.0	37.0	--	--	163.1	3.9
BUT-2-27	415	2.0	0.0483	2.7	0.1725	3.8	0.0258	2.4	0.1895	164.4	4.0	127.0	65.0	--	--	164.4	4.0
BUT-2-50	394	3.4	0.0513	3.1	0.1833	4.1	0.0259	2.5	0.1653	164.6	4.2	-7.0	90.0	--	--	164.6	4.2
BUT-2-31	69	1.8	0.0510	6.5	0.1780	6.7	0.0259	3.1	0.0932	164.7	5.1	470.0	120.0	--	--	164.7	5.1
BUT-2-32	669	2.0	0.0588	2.6	0.2101	4.0	0.0262	2.7	0.5762	165.0	4.4	140.0	33.0	--	--	165.0	4.4
BUT-2-68	292	1.9	0.0489	3.7	0.1728	4.5	0.0260	2.6	0.0811	165.6	4.2	125.0	86.0	--	--	165.6	4.2
BUT-2-14	61	0.9	0.0504	7.5	0.1760	8.0	0.0261	3.3	0.0146	166.1	5.4	590.0	140.0	--	--	166.1	5.4
BUT-2-83	267	2.5	0.0513	3.5	0.1833	4.3	0.0263	2.6	0.1981	167.0	4.4	177.0	68.0	--	--	167.0	4.4
BUT-2-5	219	2.0	0.0488	4.1	0.1778	4.8	0.0264	2.5	-0.0127	168.2	4.3	91.0	96.0	--	--	168.2	4.3
BUT-2-43	519	2.7	0.0530	3.0	0.1951	4.0	0.0266	2.4	0.1443	168.5	4.1	101.0	46.0	--	--	168.5	4.1
BUT-2-47	742	3.5	0.0492	2.2	0.1789	3.5	0.0266	2.4	0.1478	169.2	4.0	162.0	34.0	--	--	169.2	4.0
BUT-2-41	553	1.6	0.0500	2.6	0.1847	3.7	0.0268	2.4	0.1312	170.6	4.1	153.0	44.0	--	--	170.6	4.1
BUT-2-11	490	3.9	0.0508	2.6	0.1919	3.8	0.0275	2.5	0.1396	174.4	4.4	167.0	44.0	--	--	174.4	4.4
BUT-2-45	149	5.6	0.0495	5.1	0.1900	5.8	0.0276	2.8	0.1807	175.7	4.9	223.0	100.0	--	--	175.7	4.9
BUT-2-46	94	3.7	0.0497	5.8	0.1940	6.2	0.0285	2.9	0.2078	181.3	5.3	280.0	120.0	--	--	181.3	5.3
BUT-2-2	103	1.5	0.0480	5.6	0.1880	6.4	0.0286	2.9	0.1176	182.4	5.3	300.0	150.0	--	--	182.4	5.3
BUT-2-85	241	2.7	0.0497	3.4	0.2000	4.2	0.0293	2.6	0.1594	186.3	4.7	132.0	83.0	--	--	186.3	4.7
BUT-2-33	777	3.0	0.0506	2.0	0.2045	3.4	0.0294	2.4	0.3243	186.5	4.5	93.0	41.0	--	--	186.5	4.5
BUT-2-71	915	4.8	0.0499	1.9	0.2068	3.3	0.0301	2.4	0.3839	191.1	4.6	163.0	37.0	--	--	191.1	4.6
BUT-2-95	794	1.4	0.0510	2.0	0.2521	3.4	0.0364	2.4	0.3400	230.4	5.6	203.0	37.0	--	--	230.4	5.6
BUT-2-80	188	6.6	0.0502	3.6	0.2549	4.3	0.0368	2.6	0.1665	233.4	6.0	238.0	86.0	--	--	233.4	6.0
BUT-2-76	142	2.2	0.0589	3.9	0.3070	4.6	0.0377	2.7	0.0788	236.0	6.2	204.0	100.0	--	--	236.0	6.2
BUT-2-34	79	4.9	0.0548	5.1	0.2880	5.9	0.0387	2.8	0.1809	243.5	6.9	360.0	140.0	--	--	243.5	6.9
BUT-2-42	76	3.6	0.0525	5.5	0.2850	5.6	0.0388	3.1	-0.0418	244.8	7.5	510.0	120.0	--	--	244.8	7.5
BUT-2-22	492	3.0	0.0521	2.1	0.2829	3.4	0.0395	2.4	0.3188	249.7	6.0	209.0	61.0	--	--	249.7	6.0
BUT-2-20	734	3.9	0.0508	1.9	0.2852	3.3	0.0408	2.4	0.2273	257.7	6.1	217.0	47.0	--	--	257.7	6.1
BUT-2-57	176	2.6	0.0516	3.3	0.2908	4.1	0.0411	2.7	0.2282	259.4	6.9	211.0	100.0	--	--	259.4	6.9
BUT-2-62	436	3.3	0.0510	2.2	0.2936	3.4	0.0419	2.4	0.2858	264.6	6.2	247.0	47.0	--	--	264.6	6.2
BUT-2-18	179	3.7	0.0508	3.1	0.3117	4.2	0.0437	2.5	0.2000	276.1	6.9	302.0	90.0	--	--	276.1	6.9
BUT-2-75	241	9.1	0.0738	2.0	0.7860	4.3	0.0771	3.2	0.8228	468.9	14.9	591.0	51.0	--	--	468.9	14.9
BUT-2-39	96	3.9	0.0746	2.1	1.9070	3.5	0.1857	2.5	0.3061	1099.9	26.3	995.0	110.0	1297.0	99.0	1297.0	99.0
BUT-2-24	174	2.4	0.0855	1.5	2.7510	3.2	0.2345	2.4	0.5785	1360.2	31.4	1285.0	70.0	1325.0	74.0	1325.0	74.0
BUT-2-15	517	8.1	0.1073	1.2	4.9480	3.0	0.3358	2.5	0.8462	1880.9	46.4	1803.0	31.0	1747.0	31.0	1747.0	31.0

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma	Best age†	± Ma
BUT-2-59	486	3.6	0.1081	1.2	4.7880	2.9	0.3214	2.3	0.6766	1800.2	41.2	1773.8	32.0	1752.0	30.0	1752.0	30.0
BUT-2-51	179	2.7	0.1103	1.4	4.6780	3.2	0.3073	2.4	0.6519	1718.6	40.4	1740.0	45.0	1767.0	48.0	1767.0	48.0
BUT-2-35	763	11.6	0.1150	1.7	4.8560	3.3	0.3096	2.4	0.7233	1722.0	40.8	1787.0	29.0	1853.0	33.0	1853.0	33.0
BUT-2-87	23	3.5	0.0757	3.8	1.7100	4.6	0.1661	2.9	0.2800	986.5	27.7	1459.0	130.0	2240.0	160.0	2240.0	160.0
TEJ-1-42	418	2.4	0.0492	3.9	0.0912	4.7	0.0133	2.6	0.1328	85.1	2.2	29.0	58.0	--	--	85.1	2.2
TEJ-1-31	474	3.4	0.0487	3.7	0.0916	4.5	0.0133	2.6	0.0493	85.2	2.2	15.0	60.0	--	--	85.2	2.2
TEJ-1-4	219	1.4	0.0477	4.6	0.0892	5.5	0.0134	2.7	0.2054	85.6	2.3	-64.0	110.0	--	--	85.6	2.3
TEJ-1-90	724	4.1	0.0630	3.0	0.1202	4.2	0.0137	2.5	0.3473	86.3	2.2	57.0	30.0	--	--	86.3	2.2
TEJ-1-10	270	2.4	0.0487	4.7	0.0925	5.5	0.0137	2.8	0.2008	87.3	2.4	-49.0	91.0	--	--	87.3	2.4
TEJ-1-32	260	5.0	0.0481	4.6	0.0906	5.3	0.0137	2.8	0.2909	87.4	2.4	1.0	98.0	--	--	87.4	2.4
TEJ-1-26	260	2.4	0.0489	4.7	0.0987	5.6	0.0142	2.7	0.2050	90.8	2.5	84.0	65.0	--	--	90.8	2.5
TEJ-1-56	305	3.4	0.0473	4.2	0.0918	4.8	0.0142	2.5	0.1277	90.9	2.3	61.0	82.0	--	--	90.9	2.3
TEJ-1-100	217	1.7	0.0503	5.0	0.0982	5.4	0.0143	2.8	0.0724	91.2	2.6	82.0	95.0	--	--	91.2	2.6
TEJ-1-14	110	3.5	0.0489	6.5	0.0970	7.0	0.0143	3.1	0.1370	91.2	2.8	264.0	100.0	--	--	91.2	2.8
TEJ-1-54	126	3.2	0.0480	6.5	0.0963	7.0	0.0144	2.9	0.0704	92.0	2.7	240.0	78.0	--	--	92.0	2.7
TEJ-1-21	691	1.1	0.0484	2.7	0.0994	3.7	0.0148	2.4	0.1875	94.4	2.3	78.0	33.0	--	--	94.4	2.3
TEJ-1-92	816	2.2	0.0478	2.9	0.0987	3.9	0.0148	2.5	0.1106	94.9	2.4	91.0	29.0	--	--	94.9	2.4
TEJ-1-36	456	3.7	0.0487	3.7	0.1004	4.6	0.0149	2.5	0.2534	95.2	2.4	64.0	50.0	--	--	95.2	2.4
TEJ-1-30	598	2.9	0.0466	3.0	0.0991	4.0	0.0150	2.5	0.1560	96.4	2.4	49.0	49.0	--	--	96.4	2.4
TEJ-1-51	217	2.1	0.0469	5.1	0.0981	5.9	0.0152	2.8	0.1930	97.2	2.7	89.0	88.0	--	--	97.2	2.7
TEJ-1-71	507	3.1	0.0534	3.7	0.1141	4.5	0.0153	2.5	-0.0648	97.3	2.4	67.0	44.0	--	--	97.3	2.4
TEJ-1-59	133	1.5	0.0451	6.7	0.0965	6.9	0.0152	3.0	-0.0342	97.7	2.9	10.0	140.0	--	--	97.7	2.9
TEJ-1-64	645	3.5	0.0481	3.1	0.1025	4.0	0.0154	2.5	0.2454	98.2	2.4	52.0	46.0	--	--	98.2	2.4
TEJ-1-84	944	2.3	0.0473	2.5	0.1006	3.7	0.0154	2.4	0.1949	98.7	2.4	72.0	38.0	--	--	98.7	2.4
TEJ-1-15	489	4.5	0.0476	3.4	0.1021	4.3	0.0155	2.5	0.1526	99.2	2.5	59.0	50.0	--	--	99.2	2.5
TEJ-1-53	650	2.4	0.0495	2.8	0.1076	3.8	0.0156	2.4	0.1963	99.3	2.4	100.0	37.0	--	--	99.3	2.4
TEJ-1-89	572	4.6	0.0474	3.2	0.1020	4.1	0.0155	2.4	0.0871	99.4	2.4	50.0	45.0	--	--	99.4	2.4
TEJ-1-69	131	1.7	0.0487	6.2	0.1057	6.7	0.0157	3.0	0.0865	100.2	3.0	20.0	140.0	--	--	100.2	3.0
TEJ-1-75	103	2.4	0.0498	7.8	0.1048	8.1	0.0157	3.2	0.0450	100.3	3.2	190.0	140.0	--	--	100.3	3.2
TEJ-1-11	128	3.2	0.0493	5.9	0.1066	6.3	0.0157	2.9	0.0269	100.5	2.9	-110.0	150.0	--	--	100.5	2.9
TEJ-1-66	451	3.7	0.0482	3.5	0.1058	4.4	0.0158	2.6	0.1779	101.1	2.6	80.0	46.0	--	--	101.1	2.6
TEJ-1-5	76	1.1	0.0515	8.2	0.1116	8.5	0.0159	3.2	0.1864	101.1	3.3	350.0	120.0	--	--	101.1	3.3
TEJ-1-43	467	1.6	0.0479	3.8	0.1059	4.4	0.0158	2.6	0.0899	101.3	2.6	71.0	45.0	--	--	101.3	2.6
TEJ-1-9	190	2.3	0.0787	5.6	0.1802	6.1	0.0166	2.9	0.2902	102.0	3.0	-25.0	85.0	--	--	102.0	3.0
TEJ-1-7	181	1.1	0.0484	5.6	0.1078	6.1	0.0161	2.8	0.0745	102.8	2.9	26.0	100.0	--	--	102.8	2.9
TEJ-1-16	216	1.2	0.0470	4.7	0.1059	5.2	0.0163	2.6	0.0315	104.1	2.8	35.0	83.0	--	--	104.1	2.8

Analysis	Approx. U	U/Th	Isotopic Ratios							Apparent Ages						Best	±
	(ppm)		^{207}Pb/^{206}Pb	± (%)	^{207}Pb/^{235}U	± (%)	^{206}Pb/^{238}U	± (%)	error corr.	^{206}Pb*/^{238}U	± Ma	^{207}Pb*/^{235}U	± Ma	^{207}Pb*/^{206}Pb*	± Ma	age†	Ma
TEJ-1-76	354	2.5	0.0484	3.9	0.1104	4.9	0.0163	2.7	0.2184	104.1	2.8	127.0	61.0	--	--	104.1	2.8
TEJ-1-12	321	5.4	0.0473	3.8	0.1078	4.7	0.0163	2.6	0.2618	104.1	2.7	83.0	64.0	--	--	104.1	2.7
TEJ-1-68	556	2.7	0.0489	3.3	0.1101	4.3	0.0164	2.4	0.1083	104.8	2.5	66.0	47.0	--	--	104.8	2.5
TEJ-1-37	468	1.8	0.0464	3.4	0.1043	4.1	0.0164	2.6	0.1112	104.8	2.7	59.0	62.0	--	--	104.8	2.7
TEJ-1-88	1276	5.2	0.0478	2.3	0.1079	3.7	0.0164	2.5	0.3958	105.1	2.6	111.0	22.0	--	--	105.1	2.6
TEJ-1-6	135	3.4	0.0484	6.2	0.1102	6.5	0.0166	3.0	0.0888	106.0	3.1	80.0	120.0	--	--	106.0	3.1
TEJ-1-50	2809	8.5	0.0610	2.3	0.1484	3.8	0.0174	2.6	0.1303	109.6	2.9	110.0	12.0	--	--	109.6	2.9
TEJ-1-17	82	1.6	0.0615	6.2	0.1760	6.8	0.0203	3.3	0.2175	127.2	4.2	180.0	140.0	--	--	127.2	4.2
TEJ-1-72	385	46.2	0.0481	3.3	0.1448	4.2	0.0216	2.7	0.2720	137.9	3.7	114.0	54.0	--	--	137.9	3.7
TEJ-1-29	93	1.7	0.0519	6.6	0.1590	6.9	0.0223	3.0	0.1311	141.5	4.3	370.0	120.0	--	--	141.5	4.3
TEJ-1-58	194	3.6	0.0494	4.0	0.1556	4.9	0.0225	2.6	0.1598	143.5	3.7	131.0	85.0	--	--	143.5	3.7
TEJ-1-85	252	1.1	0.0495	4.2	0.1522	4.7	0.0226	2.6	0.0615	144.0	3.7	126.0	86.0	--	--	144.0	3.7
TEJ-1-83	241	2.6	0.0499	4.0	0.1574	4.7	0.0227	2.6	0.1608	144.2	3.7	119.0	78.0	--	--	144.2	3.7
TEJ-1-3	106	2.1	0.0494	6.1	0.1580	6.3	0.0232	3.0	0.0225	147.5	4.4	310.0	120.0	--	--	147.5	4.4
TEJ-1-94	40	1.9	0.0600	18.3	0.1970	18.3	0.0236	5.5	0.0578	148.3	8.4	950.0	200.0	--	--	148.3	8.4
TEJ-1-78	123	1.9	0.0477	5.7	0.1535	6.1	0.0233	2.8	0.0754	148.5	4.1	220.0	130.0	--	--	148.5	4.1
TEJ-1-33	922	1.9	0.0493	2.0	0.1604	3.4	0.0233	2.4	0.3174	148.7	3.5	141.0	27.0	--	--	148.7	3.5
TEJ-1-79	62	1.9	0.0629	8.6	0.1980	8.6	0.0238	3.4	0.0372	149.0	5.1	390.0	170.0	--	--	149.0	5.1
TEJ-1-45	230	1.6	0.0484	3.3	0.1596	4.3	0.0240	2.5	0.1135	153.0	3.9	125.0	96.0	--	--	153.0	3.9
TEJ-1-81	97	1.3	0.0478	6.3	0.1587	6.9	0.0241	2.9	0.0387	153.9	4.5	230.0	170.0	--	--	153.9	4.5
TEJ-1-60	102	1.7	0.0998	7.4	0.3480	8.3	0.0259	3.1	0.4262	154.3	5.0	250.0	120.0	--	--	154.3	5.0
TEJ-1-87	264	1.4	0.0495	3.8	0.1664	4.5	0.0244	2.6	-0.0528	155.3	4.0	164.0	74.0	--	--	155.3	4.0
TEJ-1-35	98	1.3	0.0502	5.6	0.1687	5.9	0.0247	2.9	0.0703	157.3	4.5	170.0	150.0	--	--	157.3	4.5
TEJ-1-61	616	1.9	0.0505	2.6	0.1747	3.5	0.0248	2.5	0.0780	157.4	3.9	131.0	44.0	--	--	157.4	3.9
TEJ-1-49	101	1.7	0.0527	5.5	0.1850	5.9	0.0249	2.9	0.1379	157.9	4.6	130.0	190.0	--	--	157.9	4.6
TEJ-1-22	102	1.3	0.0732	5.6	0.2560	5.9	0.0256	3.0	0.0657	158.0	4.7	190.0	120.0	--	--	158.0	4.7
TEJ-1-52	495	1.2	0.0510	2.5	0.1770	3.7	0.0249	2.4	0.1623	158.3	3.8	100.0	62.0	--	--	158.3	3.8
TEJ-1-80	1334	2.6	0.0499	1.9	0.1725	3.3	0.0249	2.4	0.2944	158.3	3.8	152.0	23.0	--	--	158.3	3.8
TEJ-1-67	92	1.4	0.0483	6.6	0.1700	7.1	0.0252	2.9	0.0332	160.8	4.7	380.0	120.0	--	--	160.8	4.7
TEJ-1-99	1295	3.3	0.0494	1.9	0.1706	3.3	0.0253	2.4	0.3991	160.9	3.8	171.4	18.0	--	--	160.9	3.8
TEJ-1-95	347	2.2	0.0492	2.8	0.1717	4.0	0.0253	2.5	0.3061	161.0	3.9	158.0	58.0	--	--	161.0	3.9
TEJ-1-47	219	2.4	0.0500	4.0	0.1781	4.8	0.0256	2.6	0.1048	162.6	4.2	128.0	86.0	--	--	162.6	4.2
TEJ-1-39	271	1.6	0.0492	3.7	0.1739	4.4	0.0257	2.5	0.0149	163.9	4.1	110.0	85.0	--	--	163.9	4.1
TEJ-1-57	197	2.2	0.0600	5.8	0.2180	6.9	0.0261	2.6	0.3698	163.9	4.4	147.0	78.0	--	--	163.9	4.4
TEJ-1-28	66	1.5	0.0523	7.1	0.1880	7.4	0.0263	3.3	0.0636	166.7	5.5	540.0	110.0	--	--	166.7	5.5
TEJ-1-23	198	1.6	0.0490	3.7	0.1773	4.5	0.0263	2.6	0.1139	167.3	4.4	76.0	93.0	--	--	167.3	4.4
TEJ-1-18	415	1.8	0.0514	2.9	0.1878	3.9	0.0264	2.5	0.1731	167.8	4.1	143.0	50.0	--	--	167.8	4.1

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
TEJ-1-82	434	2.3	0.0491	3.1	0.1801	3.8	0.0265	2.5	0.0598	168.7	4.2	181.0	57.0	--	--	168.7	4.2
TEJ-1-91	258	4.3	0.0502	3.4	0.1873	4.4	0.0266	2.6	0.1214	169.3	4.3	55.0	110.0	--	--	169.3	4.3
TEJ-1-20	222	2.4	0.0563	4.1	0.2103	4.7	0.0270	2.6	0.1947	170.1	4.3	107.0	71.0	--	--	170.1	4.3
TEJ-1-44	433	2.1	0.0500	2.8	0.1894	4.0	0.0271	2.5	0.2525	172.3	4.2	133.0	51.0	--	--	172.3	4.2
TEJ-1-98	218	1.4	0.0514	4.1	0.1923	4.7	0.0272	2.7	0.0711	172.3	4.6	161.0	86.0	--	--	172.3	4.6
TEJ-1-46	162	1.4	0.0497	4.0	0.1872	5.0	0.0272	2.7	0.1213	172.7	4.6	198.0	90.0	--	--	172.7	4.6
TEJ-1-25	330	1.9	0.0537	3.0	0.2066	4.0	0.0275	2.5	0.1820	174.0	4.3	115.0	61.0	--	--	174.0	4.3
TEJ-1-97	940	1.8	0.0504	2.0	0.1932	3.3	0.0278	2.4	0.2500	176.7	4.2	160.0	33.0	--	--	176.7	4.2
TEJ-1-40	394	2.1	0.0520	2.7	0.2030	3.7	0.0280	2.5	0.2695	177.6	4.3	110.0	61.0	--	--	177.6	4.3
TEJ-1-38	165	1.6	0.0502	4.4	0.1966	5.1	0.0280	2.6	0.2509	177.6	4.7	117.0	110.0	--	--	177.6	4.7
TEJ-1-63	28	1.2	0.0724	11.2	0.2850	11.2	0.0293	4.4	0.1959	180.9	8.2	1090.0	140.0	--	--	180.9	8.2
TEJ-1-2	216	1.5	0.0495	3.6	0.1930	4.5	0.0285	2.6	0.1520	181.1	4.7	191.0	84.0	--	--	181.1	4.7
TEJ-1-48	686	2.2	0.0499	2.0	0.2002	3.4	0.0287	2.4	0.2237	182.3	4.4	164.0	37.0	--	--	182.3	4.4
TEJ-1-70	128	2.7	0.0483	4.6	0.2000	5.0	0.0299	2.7	0.1563	190.4	5.1	195.0	120.0	--	--	190.4	5.1
TEJ-1-13	516	1.5	0.0492	2.4	0.2076	3.7	0.0302	2.5	0.3668	192.2	4.7	168.0	51.0	--	--	192.2	4.7
TEJ-1-96	264	1.9	0.0503	3.6	0.2100	4.5	0.0304	2.5	0.2195	193.2	4.8	91.0	72.0	--	--	193.2	4.8
TEJ-1-77	156	3.7	0.0597	3.7	0.2970	4.4	0.0355	2.6	0.2363	222.4	5.9	269.0	96.0	--	--	222.4	5.9
TEJ-1-55	290	4.7	0.0525	2.5	0.2911	3.8	0.0401	2.5	0.1858	252.8	6.2	219.0	67.0	--	--	252.8	6.2
TEJ-1-41	245	3.1	0.0539	2.8	0.3148	3.8	0.0422	2.4	0.1279	265.9	6.2	195.0	81.0	--	--	265.9	6.2
TEJ-1-62	206	3.1	0.0501	3.2	0.2943	4.1	0.0428	2.6	0.2175	270.6	6.9	295.0	78.0	--	--	270.6	6.9
TEJ-1-19	163	3.4	0.0540	3.0	0.3220	3.7	0.0431	2.6	0.0635	271.0	6.9	200.0	93.0	--	--	271.0	6.9
TEJ-1-1	120	2.8	0.0518	4.1	0.3100	5.2	0.0430	2.6	0.2768	271.2	6.9	210.0	130.0	--	--	271.2	6.9
TEJ-1-65	344	12.7	0.0518	2.3	0.3144	3.5	0.0440	2.5	0.3091	277.6	6.9	233.0	67.0	--	--	277.6	6.9
TEJ-1-73	116	2.3	0.0760	1.8	2.0040	3.2	0.1898	2.5	0.4005	1121.5	26.8	1039.0	110.0	1282.0	85.0	1282.0	85.0
TEJ-1-86	112	3.6	0.0835	2.6	1.8770	3.6	0.1637	2.6	0.1284	964.0	24.0	1003.0	110.0	1449.0	110.0	1449.0	110.0
TEJ-1-27	164	3.5	0.1035	1.4	3.5860	3.9	0.2527	3.4	0.9112	1432.4	46.6	1520.0	43.0	1631.0	65.0	1631.0	65.0
TEJ-1-74	60	3.7	0.0758	2.4	1.8880	3.5	0.1808	2.5	0.2732	1070.5	25.8	1102.0	120.0	1636.0	110.0	1636.0	110.0
TEJ-1-24	354	3.0	0.1056	1.2	4.6720	3.0	0.3196	2.3	0.6633	1795.3	41.3	1747.0	35.0	1695.0	32.0	1695.0	32.0
TEJ-1-8	402	19.3	0.1057	1.2	4.3410	3.0	0.2946	2.4	0.8020	1658.0	38.9	1686.0	32.0	1700.0	33.0	1700.0	33.0
TEJ-1-34	162	3.6	0.1100	1.6	2.5800	5.8	0.1683	5.1	0.9652	959.4	47.3	1229.0	55.0	1756.0	78.0	1756.0	78.0
TEJ-1-93	34	2.2	0.0902	2.5	2.8880	3.8	0.2310	2.6	0.3477	1333.5	34.1	1562.0	120.0	2030.0	120.0	2030.0	120.0
SEF-1-86	1590	3.5	0.0474	2.1	0.0823	3.5	0.0125	2.5	0.3547	79.8	2.0	88.6	16.0	--	--	79.8	2.0
SEF-1-51	1943	2.0	0.0483	2.3	0.0838	3.5	0.0126	2.4	0.2589	80.9	1.9	81.3	16.0	--	--	80.9	1.9
SEF-1-96	784	2.3	0.0539	3.3	0.0992	4.2	0.0131	2.6	0.2826	83.4	2.2	84.0	27.0	--	--	83.4	2.2
SEF-1-68	666	3.4	0.0505	3.2	0.0929	4.2	0.0133	2.6	0.2127	84.8	2.2	94.0	34.0	--	--	84.8	2.2
SEF-1-35	200	1.0	0.0493	5.9	0.0907	6.3	0.0133	3.1	0.2568	85.1	2.6	77.0	98.0	--	--	85.1	2.6

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
SEF-1-61	1370	2.4	0.0473	2.3	0.0874	3.5	0.0134	2.5	0.3254	86.0	2.1	64.0	31.0	--	--	86.0	2.1
SEF-1-20	1391	3.1	0.0540	2.4	0.1015	3.8	0.0136	2.6	0.5199	86.4	2.3	70.0	18.0	--	--	86.4	2.3
SEF-1-93	517	1.5	0.0482	3.5	0.0928	4.3	0.0138	2.6	0.1405	88.3	2.3	101.0	42.0	--	--	88.3	2.3
SEF-1-76	1289	4.1	0.0480	2.5	0.0920	3.6	0.0138	2.4	0.2049	88.6	2.1	75.0	25.0	--	--	88.6	2.1
SEF-1-46	522	3.2	0.0477	3.4	0.0916	4.3	0.0139	2.5	0.1535	88.9	2.2	48.0	55.0	--	--	88.9	2.2
SEF-1-59	781	3.7	0.0479	2.7	0.0943	3.8	0.0141	2.4	0.2518	90.5	2.2	77.0	34.0	--	--	90.5	2.2
SEF-1-77	626	2.2	0.0483	3.3	0.0946	4.1	0.0142	2.5	0.1678	90.8	2.2	71.0	43.0	--	--	90.8	2.2
SEF-1-29	909	2.1	0.0479	2.9	0.0942	3.7	0.0142	2.5	0.1051	91.0	2.3	84.0	25.0	--	--	91.0	2.3
SEF-1-13	517	2.6	0.0516	3.7	0.1016	4.4	0.0144	2.6	0.0247	91.8	2.4	23.0	48.0	--	--	91.8	2.4
SEF-1-39	588	3.9	0.0479	4.0	0.0949	4.7	0.0144	2.6	0.2340	92.3	2.4	107.0	56.0	--	--	92.3	2.4
SEF-1-42	1957	3.1	0.0486	1.9	0.0975	3.3	0.0145	2.4	0.2657	92.5	2.2	102.2	15.0	--	--	92.5	2.2
SEF-1-85	1024	4.2	0.0516	2.7	0.1033	3.7	0.0146	2.5	0.1972	92.8	2.3	87.0	23.0	--	--	92.8	2.3
SEF-1-50	471	7.0	0.0487	3.9	0.0986	4.6	0.0146	2.5	0.0107	93.3	2.3	26.0	63.0	--	--	93.3	2.3
SEF-1-98	168	5.6	0.0475	6.1	0.0964	6.2	0.0146	3.0	0.0953	93.4	2.8	128.0	100.0	--	--	93.4	2.8
SEF-1-18	221	4.2	0.0695	5.8	0.1427	6.4	0.0150	2.7	0.3008	93.4	2.6	31.0	84.0	--	--	93.4	2.6
SEF-1-84	527	0.6	0.0627	4.1	0.1274	5.3	0.0149	2.8	0.5894	93.6	2.6	45.0	40.0	--	--	93.6	2.6
SEF-1-80	704	3.2	0.0514	2.7	0.1049	3.8	0.0148	2.4	0.2544	94.1	2.3	70.0	39.0	--	--	94.1	2.3
SEF-1-19	423	2.5	0.0511	4.3	0.1053	5.0	0.0150	2.6	0.1572	95.9	2.5	-7.0	72.0	--	--	95.9	2.5
SEF-1-87	918	3.3	0.0526	2.7	0.1085	4.1	0.0151	2.6	0.5323	96.0	2.5	94.0	22.0	--	--	96.0	2.5
SEF-1-70	310	1.6	0.0471	5.1	0.0971	5.5	0.0150	2.7	0.0086	96.3	2.6	89.0	77.0	--	--	96.3	2.6
SEF-1-54	806	5.5	0.0509	2.8	0.1055	3.8	0.0152	2.4	0.1070	96.7	2.4	104.0	26.0	--	--	96.7	2.4
SEF-1-4	182	3.6	0.0639	5.9	0.1354	6.8	0.0154	2.9	0.3412	96.8	2.8	-31.0	98.0	--	--	96.8	2.8
SEF-1-24	100	3.9	0.0518	8.1	0.1063	8.2	0.0155	3.1	0.0384	98.6	3.1	243.0	110.0	--	--	98.6	3.1
SEF-1-79	269	4.7	0.0490	5.1	0.1064	5.6	0.0155	2.7	0.0613	99.0	2.7	64.0	83.0	--	--	99.0	2.7
SEF-1-41	1119	2.6	0.0506	2.4	0.1078	3.5	0.0157	2.5	0.3180	99.8	2.5	92.0	24.0	--	--	99.8	2.5
SEF-1-12	62	3.2	0.0582	10.1	0.1220	9.8	0.0162	3.4	-0.0399	102.0	3.5	635.0	85.0	--	--	102.0	3.5
SEF-1-16	755	38.1	0.0488	3.3	0.1066	4.1	0.0160	2.6	0.1974	102.1	2.6	37.0	49.0	--	--	102.1	2.6
SEF-1-91	523	3.9	0.0528	3.2	0.1184	4.3	0.0161	2.6	0.3480	102.4	2.7	103.0	39.0	--	--	102.4	2.7
SEF-1-22	413	3.7	0.0475	3.6	0.1062	4.6	0.0162	2.7	0.1868	103.5	2.8	50.0	68.0	--	--	103.5	2.8
SEF-1-45	651	3.6	0.0476	2.9	0.1074	4.1	0.0164	2.6	0.2984	104.9	2.7	85.0	49.0	--	--	104.9	2.7
SEF-1-53	636	7.1	0.0486	2.9	0.1105	3.9	0.0164	2.4	0.1453	105.1	2.5	74.0	46.0	--	--	105.1	2.5
SEF-1-9	377	3.0	0.0505	4.8	0.1136	5.4	0.0165	2.6	0.1593	105.3	2.7	130.0	65.0	--	--	105.3	2.7
SEF-1-31	124	1.5	0.0470	6.4	0.1061	6.8	0.0168	3.0	0.0732	107.6	3.2	160.0	140.0	--	--	107.6	3.2
SEF-1-34	254	2.7	0.0506	4.5	0.1168	5.1	0.0170	2.6	0.0271	108.4	2.9	102.0	82.0	--	--	108.4	2.9
SEF-1-8	69	2.3	0.0580	8.3	0.1460	8.2	0.0172	4.1	0.1368	108.6	4.5	340.0	140.0	--	--	108.6	4.5
SEF-1-2	438	2.4	0.0481	3.3	0.1138	4.4	0.0170	2.6	0.2285	108.8	2.9	74.0	56.0	--	--	108.8	2.9
SEF-1-97	1483	10.7	0.0496	2.0	0.1180	3.4	0.0171	2.5	0.4311	109.1	2.7	111.1	18.0	--	--	109.1	2.7

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
SEF-1-78	1134	4.1	0.0508	2.2	0.1216	3.5	0.0173	2.5	0.2805	110.4	2.7	107.0	25.0	--	--	110.4	2.7
SEF-1-25	447	3.1	0.0492	5.3	0.1173	5.5	0.0180	2.7	0.1860	114.6	3.1	110.0	70.0	--	--	114.6	3.1
SEF-1-71	131	3.7	0.0519	7.3	0.1281	7.3	0.0181	3.0	0.0566	115.3	3.5	70.0	150.0	--	--	115.3	3.5
SEF-1-72	98	1.2	0.0533	6.2	0.1592	6.9	0.0217	3.3	0.1789	137.6	4.6	300.0	150.0	--	--	137.6	4.6
SEF-1-95	617	2.0	0.0512	2.9	0.1551	3.9	0.0217	2.6	0.2614	137.9	3.6	138.0	37.0	--	--	137.9	3.6
SEF-1-74	2094	2.6	0.0498	1.8	0.1507	3.3	0.0219	2.5	0.5653	139.6	3.5	136.8	14.0	--	--	139.6	3.5
SEF-1-30	125	2.1	0.0478	5.4	0.1472	6.0	0.0226	2.8	0.0852	144.4	4.1	260.0	120.0	--	--	144.4	4.1
SEF-1-56	425	2.2	0.0484	3.3	0.1523	4.2	0.0228	2.5	0.0968	145.5	3.7	105.0	55.0	--	--	145.5	3.7
SEF-1-17	321	1.1	0.0492	3.5	0.1548	4.3	0.0231	2.5	0.1904	147.1	3.6	36.0	83.0	--	--	147.1	3.6
SEF-1-6	801	2.2	0.0516	2.5	0.1666	3.7	0.0232	2.5	0.3691	147.3	3.7	150.0	33.0	--	--	147.3	3.7
SEF-1-63	408	1.3	0.0531	3.4	0.1688	4.4	0.0233	2.6	0.2420	147.5	3.9	211.0	64.0	--	--	147.5	3.9
SEF-1-48	229	1.8	0.0488	3.7	0.1566	4.4	0.0233	2.6	0.0730	148.2	3.9	48.0	100.0	--	--	148.2	3.9
SEF-1-82	138	1.2	0.0515	5.0	0.1704	5.6	0.0238	2.8	0.1620	151.0	4.3	181.0	99.0	--	--	151.0	4.3
SEF-1-89	2699	2.1	0.0520	1.6	0.1714	3.2	0.0240	2.6	0.6688	152.0	3.9	153.7	11.0	--	--	152.0	3.9
SEF-1-49	3268	1.8	0.0497	1.4	0.1635	3.1	0.0239	2.3	0.5258	152.1	3.5	150.9	13.0	--	--	152.1	3.5
SEF-1-47	382	1.7	0.0510	3.1	0.1658	4.1	0.0239	2.6	0.2122	152.1	3.9	113.0	59.0	--	--	152.1	3.9
SEF-1-14	75	2.0	0.0500	6.8	0.1620	6.8	0.0241	3.2	0.0916	153.2	5.0	551.0	110.0	--	--	153.2	5.0
SEF-1-5	186	3.0	0.0466	4.3	0.1552	4.8	0.0242	2.7	0.1111	154.4	4.2	128.0	110.0	--	--	154.4	4.2
SEF-1-21	363	1.3	0.0482	3.3	0.1606	4.4	0.0243	2.5	0.3095	155.0	3.9	148.0	63.0	--	--	155.0	3.9
SEF-1-62	979	1.5	0.0495	2.0	0.1689	3.5	0.0247	2.5	0.4393	157.4	3.9	131.0	33.0	--	--	157.4	3.9
SEF-1-81	523	2.1	0.0527	2.8	0.1803	3.9	0.0248	2.5	0.1801	157.4	3.8	137.0	43.0	--	--	157.4	3.8
SEF-1-60	271	1.8	0.0481	4.0	0.1655	4.5	0.0247	2.5	0.0878	157.8	4.0	100.0	90.0	--	--	157.8	4.0
SEF-1-75	1292	1.8	0.0521	2.3	0.1754	3.4	0.0249	2.6	0.3417	158.1	4.1	161.0	20.0	--	--	158.1	4.1
SEF-1-99	619	1.5	0.0516	2.3	0.1812	3.8	0.0250	2.5	0.4352	158.5	3.9	146.0	34.0	--	--	158.5	3.9
SEF-1-15	50	1.6	0.0533	8.4	0.1770	8.5	0.0251	3.4	0.0768	159.0	5.4	630.0	120.0	--	--	159.0	5.4
SEF-1-38	465	2.1	0.0511	2.5	0.1756	3.8	0.0250	2.5	0.2353	159.1	3.9	138.0	51.0	--	--	159.1	3.9
SEF-1-64	371	4.9	0.0520	3.5	0.1790	4.2	0.0252	2.6	0.1995	159.7	4.2	102.0	63.0	--	--	159.7	4.2
SEF-1-73	770	2.2	0.0576	2.8	0.2049	4.2	0.0254	2.6	0.4429	160.3	4.1	143.0	33.0	--	--	160.3	4.1
SEF-1-67	1053	1.4	0.0487	2.1	0.1693	3.4	0.0252	2.4	0.2443	160.6	3.8	162.0	26.0	--	--	160.6	3.8
SEF-1-28	204	1.8	0.0507	4.1	0.1755	4.8	0.0253	2.6	0.1979	160.6	4.1	161.0	86.0	--	--	160.6	4.1
SEF-1-26	318	5.8	0.0481	3.3	0.1649	4.2	0.0253	2.6	0.1979	161.0	4.2	100.0	73.0	--	--	161.0	4.2
SEF-1-69	591	2.8	0.0513	2.5	0.1773	3.9	0.0254	2.6	0.3981	161.2	4.1	163.0	45.0	--	--	161.2	4.1
SEF-1-58	390	1.6	0.0507	2.8	0.1763	3.9	0.0254	2.5	0.2523	161.5	4.0	129.0	63.0	--	--	161.5	4.0
SEF-1-83	463	1.5	0.0498	2.6	0.1766	3.8	0.0254	2.5	0.2109	161.7	4.0	147.0	49.0	--	--	161.7	4.0
SEF-1-11	143	1.6	0.0576	4.9	0.2017	5.5	0.0257	2.6	0.0234	162.1	4.2	40.0	130.0	--	--	162.1	4.2
SEF-1-23	641	1.2	0.0493	2.6	0.1755	3.7	0.0256	2.5	0.2163	162.8	4.0	137.0	38.0	--	--	162.8	4.0
SEF-1-33	152	0.7	0.0510	4.9	0.1783	5.4	0.0257	2.7	0.0545	163.4	4.4	137.0	120.0	--	--	163.4	4.4

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios							Apparent Ages						Best age†	± Ma
			$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma		
SEF-1-44	492	1.6	0.0503	2.4	0.1799	3.6	0.0258	2.4	0.1192	164.1	4.0	161.0	46.0	--	--	164.1	4.0
SEF-1-1	1304	0.9	0.0495	1.8	0.1776	3.3	0.0261	2.4	0.3748	166.1	3.9	142.0	27.0	--	--	166.1	3.9
SEF-1-55	353	2.5	0.0588	2.9	0.2143	3.9	0.0265	2.5	0.1803	166.8	4.1	140.0	57.0	--	--	166.8	4.1
SEF-1-36	832	1.7	0.0527	2.3	0.1945	3.6	0.0270	2.5	0.3312	171.0	4.2	151.0	31.0	--	--	171.0	4.2
SEF-1-10	257	0.8	0.0513	3.7	0.1910	4.5	0.0271	2.5	0.1487	171.9	4.4	120.0	81.0	--	--	171.9	4.4
SEF-1-32	385	1.5	0.0491	3.3	0.1815	4.1	0.0271	2.5	0.0653	172.3	4.2	98.0	66.0	--	--	172.3	4.2
SEF-1-52	360	2.0	0.0496	2.8	0.1862	3.9	0.0273	2.6	0.2008	173.8	4.4	124.0	68.0	--	--	173.8	4.4
SEF-1-40	201	1.8	0.0501	4.2	0.1887	4.8	0.0274	2.8	0.0338	173.9	4.8	136.0	100.0	--	--	173.9	4.8
SEF-1-66	554	2.2	0.0507	2.6	0.1913	3.7	0.0274	2.5	0.3476	174.0	4.4	152.0	50.0	--	--	174.0	4.4
SEF-1-3	499	1.6	0.0503	2.6	0.1906	3.7	0.0277	2.5	0.2238	175.8	4.4	101.0	62.0	--	--	175.8	4.4
SEF-1-27	516	2.6	0.0507	2.8	0.1999	3.7	0.0285	2.5	0.1399	180.7	4.4	124.0	62.0	--	--	180.7	4.4
SEF-1-65	91	5.7	0.0511	5.1	0.2540	5.9	0.0367	3.0	0.1442	232.1	6.9	370.0	160.0	--	--	232.1	6.9
SEF-1-90	1036	2.8	0.0557	1.7	0.2910	3.4	0.0379	2.6	0.6969	238.4	6.2	225.0	28.0	--	--	238.4	6.2
SEF-1-57	156	3.6	0.0515	3.3	0.2747	4.4	0.0390	2.6	0.2317	246.6	6.3	194.0	110.0	--	--	246.6	6.3
SEF-1-43	512	2.9	0.0533	2.3	0.2885	3.5	0.0393	2.4	0.2921	247.8	5.9	244.0	51.0	--	--	247.8	5.9
SEF-1-92	377	3.4	0.0531	2.4	0.2923	3.8	0.0393	2.5	0.4067	247.8	6.1	205.0	63.0	--	--	247.8	6.1
SEF-1-7	1405	26.2	0.1029	1.2	4.0360	3.2	0.2845	2.6	0.9514	1607.7	41.2	1637.0	28.0	1664.0	23.0	1664.0	23.0
SEF-1-88	2019	29.4	0.1032	1.2	4.0820	2.9	0.2860	2.3	0.8664	1615.5	36.8	1646.4	25.0	1681.1	22.0	1681.1	22.0
SEF-1-94	398	5.9	0.1058	1.2	4.1460	3.1	0.2832	2.5	0.8515	1595.4	38.3	1655.0	31.0	1709.0	40.0	1709.0	40.0
SEF-1-37	43	3.6	0.0758	2.8	1.9060	3.9	0.1837	2.7	0.4015	1087.0	28.1	1230.0	110.0	1790.0	110.0	1790.0	110.0
BUT-3-73	1921	3.0	0.0545	2.4	0.0797	3.8	0.0106	3.0	0.7687	67.1	2.0	61.1	9.5	--	--	67.1	2.0
BUT-3-76	827	3.1	0.0506	2.8	0.0864	3.7	0.0122	2.7	0.5917	77.7	2.1	54.0	25.0	--	--	77.7	2.1
BUT-3-80	956	2.2	0.0512	2.9	0.0878	3.5	0.0125	2.6	0.5002	79.4	2.0	61.0	21.0	--	--	79.4	2.0
BUT-3-77	232	3.4	0.0731	7.8	0.1331	7.5	0.0132	3.3	0.3801	82.1	2.8	-30.0	130.0	--	--	82.1	2.8
BUT-3-3	211	2.3	0.0519	4.4	0.0931	4.7	0.0132	2.7	0.0936	83.9	2.2	67.0	66.0	--	--	83.9	2.2
BUT-3-94	616	3.0	0.0521	3.3	0.0961	4.1	0.0133	2.6	0.4020	84.8	2.2	57.0	26.0	--	--	84.8	2.2
BUT-3-4	418	3.0	0.0526	3.2	0.0960	4.0	0.0133	2.6	0.3635	84.8	2.2	48.0	41.0	--	--	84.8	2.2
BUT-3-68	521	2.5	0.0500	3.2	0.0947	4.0	0.0138	2.7	0.2837	87.8	2.4	87.0	40.0	--	--	87.8	2.4
BUT-3-10	403	2.0	0.0528	3.4	0.1005	3.8	0.0138	2.5	-0.0345	87.8	2.2	40.0	45.0	--	--	87.8	2.2
BUT-3-70	669	2.7	0.0490	3.3	0.0934	3.9	0.0138	2.6	0.2436	88.2	2.3	79.0	26.0	--	--	88.2	2.3
BUT-3-100	542	2.3	0.0491	3.5	0.0924	4.0	0.0139	2.7	0.1927	88.5	2.4	62.0	44.0	--	--	88.5	2.4
BUT-3-74	882	2.5	0.0613	3.3	0.1209	4.1	0.0142	2.6	0.3947	89.2	2.3	82.0	19.0	--	--	89.2	2.3
BUT-3-20	476	3.9	0.0513	3.5	0.0994	3.9	0.0141	2.5	0.2377	90.0	2.3	87.0	35.0	--	--	90.0	2.3
BUT-3-53	615	3.2	0.0495	3.2	0.0974	3.7	0.0141	2.6	0.2744	90.1	2.3	71.0	40.0	--	--	90.1	2.3
BUT-3-37	401	3.2	0.0486	3.5	0.0954	3.9	0.0142	2.5	0.1420	90.5	2.3	80.0	47.0	--	--	90.5	2.3
BUT-3-25	370	4.2	0.0507	3.7	0.0988	4.1	0.0142	2.6	0.1411	90.7	2.4	49.0	47.0	--	--	90.7	2.4

			Isotopic Ratios							Apparent Ages							
Analysis	Approx. U (ppm)	U/Th	$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
BUT-3-32	415	2.0	0.0470	3.6	0.0938	3.9	0.0143	2.6	0.1031	91.7	2.4	31.0	52.0	--	--	91.7	2.4
BUT-3-6	447	3.0	0.0492	3.0	0.0971	3.7	0.0144	2.6	0.1449	92.1	2.4	112.0	35.0	--	--	92.1	2.4
BUT-3-54	1289	4.5	0.0551	3.6	0.1112	3.8	0.0145	2.6	-0.1520	92.2	2.4	76.0	20.0	--	--	92.2	2.4
BUT-3-89	267	3.6	0.0482	4.4	0.0969	4.7	0.0145	2.8	-0.0574	92.6	2.6	96.0	53.0	--	--	92.6	2.6
BUT-3-19	814	3.8	0.0524	3.1	0.1052	3.8	0.0146	2.6	0.3558	92.7	2.4	69.0	25.0	--	--	92.7	2.4
BUT-3-18	76	2.7	0.0890	6.0	0.1880	5.9	0.0153	3.2	0.2365	92.8	3.0	200.0	110.0	--	--	92.8	3.0
BUT-3-2	1380	3.2	0.0482	2.3	0.0974	3.1	0.0147	2.5	0.2683	93.8	2.3	87.1	17.0	--	--	93.8	2.3
BUT-3-23	453	2.3	0.0491	3.3	0.1001	3.8	0.0148	2.6	0.1214	94.6	2.4	65.0	42.0	--	--	94.6	2.4
BUT-3-83	198	3.0	0.0481	5.2	0.1009	5.6	0.0152	3.2	0.2053	96.9	3.1	104.0	80.0	--	--	96.9	3.1
BUT-3-29	828	3.1	0.0490	2.7	0.1032	3.5	0.0152	2.5	0.3229	96.9	2.4	88.0	24.0	--	--	96.9	2.4
BUT-3-45	540	2.3	0.0516	3.7	0.1092	4.4	0.0154	2.6	0.2947	97.9	2.5	73.0	34.0	--	--	97.9	2.5
BUT-3-41	774	5.1	0.0490	2.9	0.1048	3.5	0.0154	2.5	0.2557	98.1	2.5	91.0	26.0	--	--	98.1	2.5
BUT-3-48	1370	3.4	0.0682	3.4	0.1509	4.3	0.0158	2.6	0.4577	98.4	2.6	88.0	29.0	--	--	98.4	2.6
BUT-3-47	387	2.0	0.0490	3.7	0.1036	4.2	0.0154	2.6	0.1999	98.5	2.6	75.0	49.0	--	--	98.5	2.6
BUT-3-9	239	0.8	0.0470	3.8	0.1004	4.3	0.0156	2.6	0.0245	99.6	2.6	85.0	72.0	--	--	99.6	2.6
BUT-3-22	108	1.1	0.0488	6.6	0.1053	6.7	0.0156	3.0	0.0814	99.8	3.0	-20.0	170.0	--	--	99.8	3.0
BUT-3-60	221	0.8	0.0539	5.8	0.1147	6.1	0.0158	3.1	-0.0537	100.3	3.1	-13.0	100.0	--	--	100.3	3.1
BUT-3-40	717	0.5	0.0506	2.8	0.1113	3.5	0.0158	2.5	0.2454	100.9	2.5	111.0	26.0	--	--	100.9	2.5
BUT-3-34	72	3.2	0.0667	6.3	0.1544	6.5	0.0162	3.4	0.2475	101.4	3.5	50.0	140.0	--	--	101.4	3.5
BUT-3-98	25	1.6	0.0634	14.2	0.1410	13.5	0.0163	4.7	-0.0245	102.1	4.9	1040.0	130.0	--	--	102.1	4.9
BUT-3-33	237	2.1	0.0528	4.4	0.1160	4.7	0.0162	2.7	0.1543	102.7	2.8	71.0	66.0	--	--	102.7	2.8
BUT-3-87	348	3.7	0.0494	3.6	0.1112	4.0	0.0162	2.6	0.0432	103.1	2.7	74.0	49.0	--	--	103.1	2.7
BUT-3-88	361	5.1	0.0480	3.5	0.1078	4.0	0.0163	2.6	0.2627	104.1	2.7	89.0	48.0	--	--	104.1	2.7
BUT-3-36	351	1.9	0.0489	3.7	0.1107	4.2	0.0165	2.7	0.1298	105.1	2.8	118.0	49.0	--	--	105.1	2.8
BUT-3-85	623	2.6	0.0479	2.9	0.1113	3.4	0.0165	2.5	0.1094	105.8	2.6	101.0	30.0	--	--	105.8	2.6
BUT-3-17	398	2.9	0.0490	3.7	0.1125	4.2	0.0168	2.7	0.3008	107.5	2.9	108.0	57.0	--	--	107.5	2.9
BUT-3-72	287	6.8	0.0618	3.9	0.1880	4.9	0.0218	2.8	0.5907	136.6	3.8	54.0	59.0	--	--	136.6	3.8
BUT-3-75	125	2.2	0.0565	5.8	0.1700	6.5	0.0219	3.0	0.4840	138.0	4.2	76.0	100.0	--	--	138.0	4.2
BUT-3-99	155	1.4	0.0584	4.5	0.1856	5.1	0.0227	2.8	0.3639	142.8	4.0	103.0	83.0	--	--	142.8	4.0
BUT-3-92	174	2.0	0.0519	4.2	0.1624	4.8	0.0226	2.7	0.2165	143.4	3.9	83.0	80.0	--	--	143.4	3.9
BUT-3-27	138	1.0	0.0594	7.9	0.1910	8.9	0.0231	3.6	0.2008	145.2	5.2	90.0	130.0	--	--	145.2	5.2
BUT-3-38	236	1.9	0.0539	4.6	0.1760	5.4	0.0236	3.0	0.3123	149.5	4.5	40.0	92.0	--	--	149.5	4.5
BUT-3-69	427	0.8	0.0529	3.0	0.1731	3.7	0.0237	2.6	0.3398	150.2	3.8	118.0	40.0	--	--	150.2	3.8
BUT-3-79	612	2.6	0.0518	2.5	0.1704	3.4	0.0237	2.6	0.4926	150.3	3.9	126.0	31.0	--	--	150.3	3.9
BUT-3-78	385	3.2	0.0600	3.0	0.1993	3.7	0.0239	2.6	0.2684	150.4	3.9	118.0	40.0	--	--	150.4	3.9
BUT-3-55	423	1.9	0.0488	3.3	0.1620	3.8	0.0237	2.5	0.1131	151.0	3.8	106.0	54.0	--	--	151.0	3.8
BUT-3-81	129	1.4	0.0486	4.3	0.1595	4.7	0.0238	2.8	0.1142	151.5	4.2	40.0	120.0	--	--	151.5	4.2

Analysis	Approx. U	U/Th	Isotopic Ratios							Apparent Ages						Best	±
	(ppm)		$^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	$^{206}Pb^{*}/^{238}U$	± Ma	$^{207}Pb^{*}/^{235}U$	± Ma	$^{207}Pb^{*}/^{206}Pb^{*}$	± Ma	age†	Ma
BUT-3-44	282	1.4	0.0629	4.9	0.2102	5.2	0.0243	2.6	0.2744	152.0	4.0	95.0	57.0	--	--	152.0	4.0
BUT-3-59	175	2.4	0.0651	3.8	0.2158	4.5	0.0244	2.8	0.3212	152.4	4.3	85.0	84.0	--	--	152.4	4.3
BUT-3-43	97	1.7	0.0500	5.4	0.1678	5.7	0.0243	2.9	0.0336	154.5	4.5	160.0	140.0	--	--	154.5	4.5
BUT-3-84	327	2.7	0.0505	3.2	0.1702	4.0	0.0244	2.8	0.4479	154.9	4.4	113.0	62.0	--	--	154.9	4.4
BUT-3-24	790	1.9	0.0510	2.7	0.1732	3.5	0.0245	2.6	0.1329	155.6	4.0	121.0	28.0	--	--	155.6	4.0
BUT-3-15	198	1.2	0.0620	3.9	0.2140	4.5	0.0250	2.6	0.1832	156.8	4.1	166.0	59.0	--	--	156.8	4.1
BUT-3-95	418	2.4	0.0506	2.8	0.1740	3.6	0.0247	2.5	0.3158	156.9	3.9	73.0	54.0	--	--	156.9	3.9
BUT-3-93	617	1.7	0.0504	2.4	0.1731	3.3	0.0248	2.5	0.3509	157.4	4.0	141.0	30.0	--	--	157.4	4.0
BUT-3-96	93	1.5	0.0509	5.1	0.1759	5.5	0.0248	2.9	0.0838	157.5	4.6	90.0	140.0	--	--	157.5	4.6
BUT-3-14	384	2.3	0.0510	2.9	0.1756	3.6	0.0248	2.6	0.3312	157.8	4.0	133.0	57.0	--	--	157.8	4.0
BUT-3-67	139	1.7	0.0484	4.5	0.1701	4.9	0.0252	2.7	0.0486	160.5	4.3	-40.0	160.0	--	--	160.5	4.3
BUT-3-13	549	1.8	0.0531	2.6	0.1863	3.4	0.0254	2.6	0.4855	161.1	4.1	130.0	38.0	--	--	161.1	4.1
BUT-3-64	438	1.3	0.0498	2.8	0.1755	3.5	0.0254	2.6	0.1943	161.5	4.1	161.0	43.0	--	--	161.5	4.1
BUT-3-61	234	1.7	0.0485	3.7	0.1734	4.2	0.0254	2.6	0.0735	162.0	4.2	62.0	84.0	--	--	162.0	4.2
BUT-3-63	1085	1.4	0.0492	2.2	0.1734	3.1	0.0255	2.5	0.4672	162.1	4.0	148.0	23.0	--	--	162.1	4.0
BUT-3-42	798	3.6	0.0495	2.4	0.1761	3.2	0.0255	2.5	0.3736	162.2	4.0	160.0	29.0	--	--	162.2	4.0
BUT-3-97	1204	0.3	0.0520	2.3	0.1846	3.1	0.0256	2.5	0.2622	162.7	4.0	151.0	22.0	--	--	162.7	4.0
BUT-3-12	563	1.7	0.0506	2.8	0.1775	3.4	0.0256	2.5	0.3180	162.9	4.0	137.0	36.0	--	--	162.9	4.0
BUT-3-1	461	1.7	0.0480	2.7	0.1698	3.4	0.0256	2.5	0.1132	163.3	4.0	141.0	38.0	--	--	163.3	4.0
BUT-3-5	81	2.8	0.0584	5.5	0.2110	5.7	0.0260	2.8	0.1197	163.5	4.7	259.0	100.0	--	--	163.5	4.7
BUT-3-62	765	1.6	0.0518	2.5	0.1845	3.3	0.0258	2.4	0.1797	163.6	4.0	145.0	32.0	--	--	163.6	4.0
BUT-3-50	499	1.7	0.0516	2.9	0.1854	3.7	0.0258	2.6	0.3644	163.9	4.2	122.0	39.0	--	--	163.9	4.2
BUT-3-82	44	1.2	0.0531	6.6	0.1910	6.3	0.0261	3.2	0.0381	165.1	5.3	510.0	140.0	--	--	165.1	5.3
BUT-3-28	385	2.7	0.0499	3.0	0.1813	3.6	0.0262	2.6	0.1749	166.3	4.3	132.0	54.0	--	--	166.3	4.3
BUT-3-56	1100	1.8	0.0500	2.4	0.1856	3.2	0.0266	2.5	0.4221	169.2	4.2	168.0	22.0	--	--	169.2	4.2
BUT-3-39	567	2.1	0.0502	2.6	0.1853	3.3	0.0267	2.5	0.3193	169.8	4.3	154.0	32.0	--	--	169.8	4.3
BUT-3-7	802	1.7	0.0521	2.7	0.1957	3.4	0.0276	2.6	0.2540	174.8	4.5	181.0	39.0	--	--	174.8	4.5
BUT-3-86	385	2.2	0.0503	2.8	0.1933	3.5	0.0278	2.6	0.2140	176.8	4.6	83.0	64.0	--	--	176.8	4.6
BUT-3-46	116	1.1	0.0489	4.9	0.1912	5.2	0.0278	2.8	0.1165	176.9	4.9	180.0	120.0	--	--	176.9	4.9
BUT-3-26	488	2.1	0.0506	2.8	0.1941	3.5	0.0279	2.5	0.3234	177.2	4.4	155.0	39.0	--	--	177.2	4.4
BUT-3-65	185	3.7	0.0548	4.9	0.2170	5.5	0.0281	2.8	0.1800	177.6	5.0	190.0	85.0	--	--	177.6	5.0
BUT-3-11	942	2.5	0.0538	2.6	0.2090	3.7	0.0283	2.5	0.6074	178.9	4.5	162.0	22.0	--	--	178.9	4.5
BUT-3-57	306	3.8	0.0689	4.4	0.3090	5.8	0.0318	2.9	0.6368	197.2	5.7	112.0	61.0	--	--	197.2	5.7
BUT-3-31	186	2.0	0.0502	4.2	0.2229	4.5	0.0323	2.8	0.1830	205.1	5.6	100.0	79.0	--	--	205.1	5.6
BUT-3-35	1304	4.4	0.0531	2.1	0.2940	3.0	0.0401	2.5	0.6073	252.7	6.2	240.6	20.0	--	--	252.7	6.2
BUT-3-30	230	3.3	0.0602	3.7	0.3350	4.2	0.0405	2.7	0.2338	253.3	6.8	192.0	55.0	--	--	253.3	6.8
BUT-3-8	540	4.6	0.0523	2.3	0.2913	3.1	0.0405	2.5	0.3979	255.6	6.2	223.0	37.0	--	--	255.6	6.2

Analysis	Approx. U (ppm)	U/Th	Isotopic Ratios $^{207}Pb/^{206}Pb$	± (%)	$^{207}Pb/^{235}U$	± (%)	$^{206}Pb/^{238}U$	± (%)	error corr.	Apparent Ages $^{206}Pb^*/^{238}U$	± Ma	$^{207}Pb^*/^{235}U$	± Ma	$^{207}Pb^*/^{206}Pb^*$	± Ma	Best age†	± Ma
BUT-3-90	251	3.0	0.0530	2.8	0.3056	3.6	0.0419	2.6	0.3145	264.2	6.9	219.0	61.0	--	--	264.2	6.9
BUT-3-51	609	3.2	0.0522	2.3	0.3134	3.2	0.0435	2.5	0.3849	274.1	6.9	254.0	37.0	--	--	274.1	6.9
BUT-3-52	204	4.0	0.0507	3.4	0.3111	3.9	0.0440	2.7	0.2364	277.8	7.5	280.0	84.0	--	--	277.8	7.5
BUT-3-21	177	3.5	0.0522	3.1	0.3148	3.8	0.0441	2.5	0.1169	278.1	6.9	198.0	91.0	--	--	278.1	6.9
BUT-3-58	302	1.5	0.0614	2.8	0.4480	3.8	0.0530	2.6	0.5119	329.8	8.6	318.0	51.0	--	--	329.8	8.6
BUT-3-49	391	2.7	0.0997	1.9	3.2790	2.9	0.2379	2.5	0.7695	1357.1	33.1	1451.0	37.0	1579.0	69.0	1579.0	69.0
BUT-3-91	302	2.2	0.1021	1.9	4.0040	2.7	0.2832	2.5	0.7667	1602.0	38.6	1614.0	33.0	1629.0	61.0	1629.0	61.0
BUT-3-66	1139	34.6	0.1040	1.8	4.2700	2.8	0.2957	2.5	0.8779	1667.1	40.7	1681.3	24.0	1689.0	43.0	1689.0	43.0
BUT-3-71	619	6.8	0.1068	1.8	4.0950	2.9	0.2766	2.5	0.8233	1557.5	37.8	1639.8	25.0	1719.0	41.0	1719.0	41.0
BUT-3-16	121	1.6	0.1095	1.9	4.7110	3.0	0.3144	2.5	0.7612	1758.9	43.4	1787.0	55.0	1850.0	86.0	1850.0	86.0

† 800 Ma cutoff used between $^{206}Pb^*/^{238}U$ and $^{207}Pb^*/^{206}Pb^*$ ages
Data reduction methods follow Paton et al. (2010). See also Appendix DR1.
Age uncertainties are reported at the 2-sigma level.

Table DR4: Kolgomorov-Smirnov (K-S) P-values and D-values of detrital zircon U-Pb age distributions

		P-values											
Sample	**N**	**POR-3**	**POR-2**	**POR-1**	**SEF-1**	**TEJ-2**	**TEJ-1**	**SJB-1**	**BUT-5**	**BUT-4**	**BUT-3**	**BUT-2**	**BUT-1**
Point of Rocks Sandstone (POR-3)	101	--	0.803	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Point of Rocks Sandstone (POR-2)	97	0.803	--	0.936	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.002	0.000
Point of Rocks Sandstone (POR-1)	100	1.000	0.936	--	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
San Emigdio Formation (SEF-1)	99	0.000	0.000	0.000	--	0.999	0.518	0.795	0.511	0.040	0.991	0.612	0.050
Tejon Formation - Metralla ss. mbr. (TEJ-2)	97	0.000	0.001	0.000	0.999	--	0.214	0.862	0.561	0.023	0.989	0.680	0.066
Tejon Formation - Uvas cngl. mbr. (TEJ-1)	100	0.000	0.000	0.000	0.518	0.214	--	0.829	0.914	0.233	0.212	0.393	0.695
San Juan Bautista Formation (SJB-1)	96	0.000	0.001	0.000	0.795	0.862	0.829	--	1.000	0.034	0.994	1.000	0.265
Butano Sandstone (BUT-5)	96	0.000	0.000	0.000	0.511	0.561	0.914	1.000	--	0.053	0.942	0.997	0.360
Butano Sandstone (BUT-4)	99	0.000	0.000	0.000	0.040	0.023	0.233	0.034	0.053	--	0.038	0.011	0.697
Butano Sandstone (BUT-3)	100	0.000	0.000	0.000	0.991	0.989	0.212	0.994	0.942	0.038	--	1.000	0.164
Butano Sandstone (BUT-2)	99	0.000	0.002	0.000	0.612	0.680	0.393	1.000	0.997	0.011	1.000	--	0.117
Butano Sandstone (BUT-1)	100	0.000	0.000	0.000	0.050	0.066	0.695	0.265	0.360	0.697	0.164	0.117	--

		D-values											
Sample	**N**	**POR-3**	**POR-2**	**POR-1**	**SEF-1**	**TEJ-2**	**TEJ-1**	**SJB-1**	**BUT-5**	**BUT-4**	**BUT-3**	**BUT-2**	**BUT-1**
Point of Rocks Sandstone (POR-3)	101	--	0.091	0.035	0.324	0.301	0.377	0.369	0.343	0.514	0.340	0.340	0.456
Point of Rocks Sandstone (POR-2)	97	0.091	--	0.076	0.293	0.280	0.345	0.287	0.299	0.492	0.292	0.262	0.431
Point of Rocks Sandstone (POR-1)	100	0.035	0.076	--	0.316	0.303	0.368	0.334	0.322	0.515	0.316	0.305	0.454
San Emigdio Formation (SEF-1)	99	0.324	0.293	0.316	--	0.054	0.116	0.093	0.118	0.199	0.062	0.108	0.192
Tejon Formation - Metralla ss. mbr. (TEJ-2)	97	0.301	0.280	0.303	0.054	--	0.151	0.087	0.114	0.213	0.063	0.103	0.186
Tejon Formation - Uvas cngl. mbr. (TEJ-1)	100	0.377	0.345	0.368	0.116	0.151	--	0.089	0.080	0.147	0.150	0.128	0.100
San Juan Bautista Formation (SJB-1)	96	0.369	0.287	0.334	0.093	0.087	0.089	--	0.031	0.204	0.060	0.047	0.144
Butano Sandstone (BUT-5)	96	0.343	0.299	0.322	0.118	0.114	0.080	0.031	--	0.193	0.076	0.058	0.132
Butano Sandstone (BUT-4)	99	0.514	0.492	0.515	0.199	0.213	0.147	0.204	0.193	--	0.200	0.230	0.100
Butano Sandstone (BUT-3)	100	0.340	0.292	0.316	0.062	0.063	0.150	0.060	0.076	0.200	--	0.046	0.158
Butano Sandstone (BUT-2)	99	0.340	0.262	0.305	0.108	0.103	0.128	0.047	0.058	0.230	0.046	--	0.169
Butano Sandstone (BUT-1)	100	0.456	0.431	0.454	0.192	0.186	0.100	0.144	0.132	0.100	0.158	0.169	--

P-values use error in the cumulative distribution function
Samples that are statistically distinct at a 95% confidence level (P-value < 0.05) are shaded
Abbreviations: ss: sandstone; cngl: conglomerate; mbr: member; N: number of grain analyses
See also Appendix DR2

Table DR5: Explanation of tectonic and depositional events shown in Figure 4

Tectonic or Depositional Event	Age Range (Ma)	Reference(s)
Neogene displacement on the San Andreas fault	18-0	Atwater (1989)
Eruption of the Pinnacles-Neenach volcanic field	24.5-22	Matthews (1976), Dickinson (1997)
Initiation of Pacific-North American plate interaction	29-24	Atwater (1989), Wilson et al. (2005)
Deposition of the Point of Rocks Sandstone	48-37†	Clarke (1973), Milam (1985), Almgren et al. (1988)
Deposition of the Butano Sandstone	54-38†	Poore and Brabb (1977), Seiders and Cox (1992)
Structural emplacement of the northern Salinian block	90-58	Suppe (1970), Page (1981), Dickinson (1983), Hall (1991), Saleeby (2003), Chapman et al. (2012)
Cooling ages of northern Salinian block plutons	120-80	Mattinson (1990), Kistler and Champion (2001), Barth et al. (2003)

† Biostratigraphic age ranges are correlated to absolute time using McDougall (2007)

Table DR6: Explanation of San Andreas fault piercing points used in Figure 4

	Cross-fault tie	Age Range (Ma)	Displacement Range (km)	Reference(s)
a	Temblor Range conglomerates derived from Gabilan Range	13.5-6.5†	260-225	Huffman (1972)
b	Relizian-Luisian basinal facies	17.5-13.5†	320-260	Graham et al. (1989)
c	Saucesian paleobathymetry	22.9-17.5†	325-320	Stanley (1987)
d	Early Miocene shorelines and volcanic rocks	23-20.8	305-280	Turner (1968), Huffman (1972), Graham et al. (1989)
e	Pinnacles-Neenach volcanic centers	24.5-22	305-325	Matthews (1976), Dickinson (1997)
f	Castle Rock-Recruit Pass submarine fan	28-17.5†	320-315	Graham et al. (1989)
g	Zemmorian paleobathymetry	30.3-22.9†	330-325	Stanley (1987)
h	Eocene forearc strata of the northern Gabilan Range and San Emigdio Mountains	54.6-35.2†	320-305	Nilsen (1984)
i	Butano-Point of Rocks submarine fan	48-38†	330-300	Clarke (1973), Poore and Brabb (1977), Milam (1985), Almgren et al. (1988), Seiders and Cox (1992)
j	Provenance of northern Salinian block and southern Sierra Nevada forearc strata	54-38†	>365	This study
k	Cretaceous granitic rocks of the northern Salinian block and the southern Sierra Nevada	120-80	>415	Mattinson (1990), Kistler and Champion (2001), Barth et al. (2003), Dickinson et al. (2005)

† Biostratigraphic age ranges are correlated to absolute time using McDougall (2007)

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