Supplementary Material

Table 1: Sample data

Sample	latitude S	longitude W	altitude m	flag	thickness cm	density g/cm3	shielding	erosion rate cm/yr	10Be at/g	1σ
RU11	39.19	71.32	1800	std	3	2.7	1	0	292475	19071
RU12 *	39.19	71.32	1801	std	3	2.7	1	0	270069	7593
RU21 *	39.21	71.30	1358	std	3	2.7	1	0	206287	10683
RU31	39.25	71.22	1238	std	3	2.7	1	0	218207	17453
RU32 *	39.25	71.22	1241	std	3	2.7	1	0	178710	11699
RU51	39.25	71.18	1593	std	3	2.7	1	0	602373	24609
RU52	39.25	71.18	1594	std	3	2.7	1	0	504749	23762
RU53	39.25	71.18	1594	std	3	2.7	1	0	586596	21816
RU61	39.20	71.11	1220	std	3	2.7	1	0	423317	24519
RU62	39.20	71.11	1221	std	3	2.7	1	0	459499	30650
RC12	39.21	71.25	2026	std	3	2.7	1	0	271588	16733
RC51	39.21	71.14	1303	std	3	2.7	1	0	524855	32647
RC52	39.21	71.14	1297	std	3	2.7	1	0	455413	25064

Notes: * indicates bedrock samples. A long term mean blank of $0.048E^{-12}$ $^{10}Be/^{9}Be$ has been subtracted from all measured AMS ratios to account for the ^{10}Be background. Samples are normalized to the laboratory house internal standard S555.

Table 2: Exposure age results in ka (including external uncertainties) based on various scaling systems available in the CRONUS online calculator vs. 2.2 (http://hess.ess.washington.edu/).

Samples	Lal (1991)/Stone (2000) constant	Desilet et al. (2003/2006)	Dunai (2001)	**Lifton et al. (2005)**	Lal (1991)/Stone (2000) time-dependent
RU11	15.6 ± 1.4	15.9 ± 1.9	15.6 ± 1.8	**15.5 ± 1.5**	15.6 ± 1.3
RU12	14.4 ± 1.3	14.7 ± 1.7	14.4 ± 1.7	**14.4 ± 1.4**	14.4 ± 1.2
RU21	15.1 ± 1.3	15.8 ± 1.9	15.5 ± 1.8	**15.5 ± 1.5**	15.2 ± 1.3
RU31	17.5 ± 1.5	18.2 ± 2.2	17.9 ± 2.1	**17.9 ± 1.8**	17.5 ± 1.5
RU32	14.3 ± 1.2	15.0 ± 1.8	14.7 ± 1.7	**14.8 ± 1.5**	14.4 ± 1.2
RU51	37.3 ± 3.3	36.6 ± 4.4	36.0 ± 4.3	**35.6 ± 3.5**	35.7 ± 3.0
RU52	31.2 ± 2.7	31.0 ± 3.7	30.4 ± 3.6	**30.2 ± 3.0**	30.2 ± 2.6
RU53	36.3 ± 3.2	35.7 ± 4.2	35.1 ± 4.2	**34.8 ± 3.5**	34.8 ± 3.0
RU61	34.6 ± 3.0	34.8 ± 4.1	34.2 ± 4.1	**34.0 ± 3.4**	33.4 ± 2.8
RU62	37.5 ± 3.3	37.5 ± 4.5	36.9 ± 4.4	**36.6 ± 3.6**	36.1 ± 3.1
RC12	12.3 ± 1.1	12.5 ± 1.5	12.2 ± 1.4	**12.2 ± 1.2**	12.4 ± 1.1
RC51	40.3 ± 3.5	39.8 ± 4.7	39.3 ± 4.7	**38.8 ± 3.9**	38.4 ± 3.3
RC52	35.1 ± 3.1	35.1 ± 4.2	34.6 ± 4.1	**34.3 ± 3.4**	33.9 ± 2.9