Data Repository 1: Summary of ages of samples from Nahal Yael and Nahal Mekorot (see also Amit et al., 2007)

Sample	Depth (m)	ext. γ (μGy/a)	De (Gy)	K KF (%)	K (%)	U (ppm)	Th (ppm)	Int. β (μGy/a)	ext. α (μGy/a)	ext. β (μGy/a)	Youngest age (ka)	Dose rate (μGy/a)	Age (ka)
Nahal Mekorot													
MKC-1	0.02		14±4	4.0								2500±250*	6±2*
MKC-2	0.5	932	95±3	3.7	1.5	1.1	2.7	170	141	1264		2507±104	37.9±2.0
MKT-1	0.25		40±4	4.3	1.1	0.8	2.0	197	107	950		1931±47	20.7±1.9
MKT-2	0.5	853	42±4	3.4	1.2	1.0	2.5	165	127	1078		2223±95	19.0±2.1
MKT-3	1.3	982	92±11	5.2	1.4	1.1	2.3	238	131	1221		2573±107	35.7±4.4
MKT-4	1.7	1291	114±3	5.1	1.6	1.7	4.4	234	228	1543		3296±144	34.6±1.8
Nahal Yael													
Alluvial Fan Site													
NYF-1	0.3	1067	54±9	3.5	1.5	1.3	4.0	160	188	1389		2804±121	19.2±3.3
NYF-2	0.85	1195	57±4	4.2	1.7	1.5	4.9	192	220	1545		3152±135	18.0±1.5
NYF-3	1.3	1159	60±2	4.0	1.8	1.7	4.5	183	226	1658		3226±134	18.6±0.9
NYF-4	1.85	1206	79±3	4*	1.8	1.4	4.0	183	194	1611		3195±141	24.6±1.5
NYF-5	2.45	1269	93±9	3.7	1.9	1.7	4.2	170	219	1711		3358±144	27.6±2.9
NYF-7	0.4	1068	51±6	3.2	1.4	1.3	3.2	105	166	1296		2635±118	19.8±1.6
NYF-8	0.7	1033	62±4	2.0	1.5	1.5	3.5	92	188	1404		2716±117	22.9±1.7
Terrace site													
NYC-1	0.02		32±4	5.4								2800*	13±2*
NYC-2	0.7	1064	132±4	2.9	1.4	0.9	2.2	133	113	1134		2444±186	53.8±4.3
NYT-1	0.15	1120	56±4	4.1	1.5	0.9	2.1	188	114	1270		2690±120	20.8±1.6
NYT-2	0.35	1181	100±7	4.5	1.5	1.4	3.2	206	172	1406		2965±129	33.6±2.9
NYT-3	1.2	1181	71±7	4.2	1.8	0.9	2.1	192	112	1485		2971±125	24.0±2.7
NYT-4	1.9	1164	104±4	3.7	1.5	1.5	3.4	170	186	1389		2909±128	35.8±2.2

* Dose rate values estimated from nearby samples.

H7
H6
H5
H3
H2
H1

Data Repository 3: Cosmogenic Isotopic Data

Sample	*CAMS #*	*Measured Ratio*	*Blank Ratio*	*Blank Corrected Ratio*	*Quartz Mass* (g)	*Be carrier* (ug)	*Total Al* (ug)	*Measured 10Be*	*Measured 26Al*	*26Al/10Be*
141NYW1	BE10052	2.58E-13 +/- .60E-15	2.64E-14 +/- .50E-15	2.33E-13 +/- .99E-15	31.49	254		1.13E+05 +/- .86E+03		6.43
141NYW2	BE10053	6.19E-13 +/- .30E-14	2.64E-14 +/- .50E-15	5.97E-13 +/- .50E-14	51.66	254		1.77E+05 +/- .44E+03		6.86
141NYW4	BE10054	9.35E-13 +/- .69E-14	2.64E-14 +/- .50E-15	9.15E-13 +/- .85E-14	58.11	254		2.41E+05 +/- .87E+03		6.83
141BLANK	BE10051	2.36E-14 +/- .15E-15		2.37E-14 +/- .15E-15						
141BLANKX	BE10058	2.93E-14 +/- .29E-15		2.94E-14 +/- .29E-15						
130NYW5	BE9524	6.12E-13 +/- .62E-14	3.81E-14 +/- .40E-15	5.75E-13 +/- .68E-14	35.72	253		2.46E+05 +/- .14E+04		6.85
130NYW6	BE9525	5.66E-13 +/- .44E-14	3.81E-14 +/- .40E-15	5.28E-13 +/- .54E-14	39.19	252		2.05E+05 +/- .97E+03		7.35
130BLANK	BE9522	3.80E-14 +/- .40E-15		3.81E-14 +/- .40E-15						
129NYW3	BE9533	3.20E-13 +/- .04E-14	2.97E-14 +/- .70E-15	2.91E-13 +/- .14E-14	26.94	253		1.65E+05 +/- .47E+03		7.56
129BLANK	BE9532	2.96E-14 +/- .70E-15		2.97E-14 +/- .70E-15						
141NYW1	AL5247	4.59E-13 +/- .50E-14	4.13E-15 +/- .62E-15	4.55E-13 +/- .51E-14	31.49		2258		7.28E+05 -/- .01E+04	
141NYW2	AL5248	8.41E-13 +/- .66E-14	4.13E-15 +/- .62E-15	8.36E-13 +/- .67E-14	51.66		3362		1.22E+06 -/- .88E+04	
141NYW4	AL5249	1.10E-12 +/- .57E-14	4.13E-15 +/- .62E-15	1.10E-12 +/- .58E-14	58.11		3909		1.65E+06 -/- .37E+04	
141BLANK	AL5245	1.50E-15 +/- .50E-15		1.50E-15 +/- .50E-15						
141BLANKX	AL5252	6.75E-15 +/- .15E-15		6.75E-15 +/- .15E-15						
130NYW5	Al4976	1.04E-12 +/- .68E-14	1.50E-15 +/- .50E-16	1.04E-12 +/- .68E-14	35.72		2601		1.68E+06 -/- .98E+04	
130NYW6	Al4977	8.77E-13 +/- .03E-14	1.50E-15 +/- .50E-16	8.75E-13 +/- .03E-14	39.19		3025		1.51E+06 -/- .22E+04	
130BLANK	Al4970	1.50E-15 +/- .50E-16		1.50E-15 +/- .50E-16						
129NYW3	AL5012	7.27E-13 +/- .97E-14	2.65E-15 +/- .65E-15	7.25E-13 +/- .98E-14	26.94		2078		1.25E+06 -/- .03E+05	
129BLANK	AL5011	2.65E-15 +/- .65E-15		2.65E-15 +/- .65E-15						

Notes: Samples prepared in 1998 using standard extraction methods at the University of Vermont and analyzed after being mixed with Ag at Livermore National Laboratory in 1999. Be data referenced to KNSTD3110 with an assumed value of 3110. Measured 10Be concentration as adjusted for published value of this standard that is now 10.6% lower (Nishiizumi et al., 2007). One or two full process blanks using similar amounts of carrier as the unknowns were included with each batch of 8. Batch specific blank ratios were subtracted from measured isotope ratios. SPEX 1000 ppm carrier was used.