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Supplementary Information for

The Age of the Opening of the Ice-Free Corridor and Implications for the Peopling of the Americas

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Table S1. Sample location information and ^{10}Be age and uncertainty including 4 samples from Ref. (*23*).

Field ID	Latitude	Longitude	Field elevation (m)	Thickness (cm)	Concenration ^{10}Be in Quartz (atoms/g)	1σ uncertainty (atoms/g)	Lal/Stone (yrs)	±1 σ
ABS-1-16	50.090	-113.796	1205	2.5	162416	5086	14296	449
ABS-2-16	50.090	-113.796	1213	1.0	173684	3817	15002	331
ABS-3-16	50.086	-113.796	1233	2.5	173583	4355	14937	376
ABS-4-16	50.083	-113.793	1234	2.0	158745	4001	13599	343
ABS-5-16	50.083	-113.792	1237	2.5	184652	6729	15834	579
ABS-6-16*	_50.083_	_-113.792_	_1237_	_2.5_	397648	7947	_34014_	_690_
ABS-7-16	50.083	-113.792	1236	2.0	193879	4823	16567	414
ABS-8-16*	_50.083_	_-113.791_	_1236_	_1.0_	407358	8891	_34440_	_764_
ABS-9-16	50.086	-113.798	1231	4.0	197592	4304	17223	377
ABS-10-16	50.086	-113.798	1231	3.5	180380	4147	15667	361
ALT-MM-15-08	50.102	-113.786	1132	2.0			15777	493
ALT-MM-15-09*	_50.137_	_-113.757_	_1069_	_3.5_			_181362_	_4323_
Isostatic rebound correction is -24 m					Age ka±internal (external): 15.4±0.4 (0.7)			
ABC-1-16	52.171	-114.831	1068	2.5	148825	4524	14633	447
ABC-2-16	52.171	-114.831	1068	2.5	157248	4412	15459	436
ABC-3-16	52.168	-114.828	1074	3.0	150654	5729	14800	566
ABC-4-16	52.168	-114.829	1067	2.5	141148	5848	13888	579
ABC-5-16	52.168	-114.829	1069	3.5	165346	4190	16370	418
ABC-6-16	52.169	-114.826	1054	2.5	152087	3820	15125	382
ABC-7-16*	_52.168_	_-114.828_	_1066_	_2.0_	273844	6005	_26850_	_596_
ABC-8-16*	_52.170_	_-114.829_	_1077_	_6.0_	201100	4496	_20176_	_455_
ABC-9-16	52.173	-114.854	1071	3.0	142730	4481	14055	444
ABC-10-16	52.173	-114.854	1071	2.0	132513	4257	12943	418
ABC-11-16*	_52.173_	_-114.854_	_1071_	_3.0_	208883	4638	_20565_	_461_
ABC-12-16	52.174	-114.854	1066	3.0	149962	5046	14828	502
ALT-MM-15-14*	_52.175_	_-114.870_	_1066_	_2.0_			_24287_	_888_
ALT-MM-15-15	52.187	-114.882	1069	2.0			16360	567
Isostatic rebound correction is -42 m					Age ka±internal (external): 14.8±0.3 (0.6)			
ABN-6-16	53.980	-118.862	1698	3.5	224897	5893	13435	355
ABN-7-16	53.980	-118.862	1698	2.0	222102	5468	13107	325
ABN-8-16	53.980	-118.862	1698	1.5	242270	5824	14241	345
ABN-9-16	53.980	-118.862	1698	1.5	218161	5108	12821	303
ABN-10-16*	_53.941_	_-119.114_	_1888_	_2.0_	211806	15680	_10818_	_807_
ABN-11-16	53.941	-119.114	1888	2.0	292044	7316	14925	377
ABN-12-16	53.938	-119.113	1964	1.5	286442	12431	13776	603
ABN-13-16	53.936	-119.112	1961	3.0	313856	11544	15317	569
ABN-14-16	53.936	-119.112	1962	3.0	302088	14286	14732	707
ABN-15-16	53.939	-119.114	1931	2.0	272107	9706	13468	484
ABN-17-16	53.940	-119.113	1894	5.5	286008	8803	14970	465
ABN-18-16	53.940	-119.113	1894	3.5	302646	9476	15586	493
Isostatic rebound correction is -55 m					Age ka±internal (external): 14.2±0.3 (0.6)			
BCS-1-16	56.078	-122.162	992	2.0	133547	3531	14074	375
BCS-2-16	56.078	-122.162	992	2.0	129846	4257	13685	452
BCS-3-16	56.078	-122.163	993	2.0	127423	3470	13416	368
BCS-4-16	56.078	-122.164	1005	4.0	141467	10119	14986	1095
BCS-5-16	56.077	-122.162	987	3.0	127409	3474	13596	373
BCS-6-16	56.069	-122.174	1132	3.0	148788	3522	14033	334
BCS-7-16	56.069	-122.174	1133	2.0	153436	3754	14344	353
BCS-8-16	56.069	-122.174	1134	1.0	139249	3972	12899	370
BCS-9-16	56.069	-122.174	1134	3.0	150700	4096	14190	388
BCS-10-16	56.068	-122.174	1152	1.0	148228	3651	13526	335
BCS-11-16	56.068	-122.173	1153	1.5	150470	3650	13775	336
BCS-12-16	56.068	-122.173	1142	3.5	142821	8227	13412	778
BCS-13-16	56.068	-122.173	1142	2.0	141222	5510	13102	514
BCS-14-16	56.069	-122.174	1128	2.0	144520	3664	13566	346
BCS-15-16	56.069	-122.175	1127	5.0	153288	3480	14755	337
Isostatic rebound correction is -80 m					Age ka±internal (external): 13.8±0.1 (0.5)			
BCC-1-16	57.563	-122.932	1152	2.0	158249	5582	14447	513
BCC-2-16*	_57.518_	_-122.913_	_1181_	_2.0_	114384	5521	_10186_	_494_
BCC-3-16	57.443	-122.872	1209	2.5	151289	5646	13225	496
BCC-4-16	57.445	-122.873	1224	4.0	177504	6693	15512	589
BCC-5-16	57.445	-122.873	1224	5.0	167369	7667	14745	680
Isostatic rebound correction is -80 m					Age ka±internal (external): 14.5±0.5 (0.7)			
BCN-1-16	58.699	-123.798	1038	2.0	142064	4155	14281	419
BCN-2-16	58.699	-123.798	1038	2.0	153339	9464	15414	956
BCN-3-16	58.699	-123.798	1038	2.0	140317	3293	14101	332
BCN-4-16	58.698	-123.800	1039	2.5	140080	3851	14124	390
BCN-5-16	58.698	-123.800	1039	2.3	144102	5043	14501	510
BCN-7-16	58.698	-123.800	1039	4.0	137040	3469	13983	355
BCN-8-16	58.698	-123.800	1039	4.0	145636	3929	14862	403
BCN-9-16	58.691	-123.783	1035	4.5	133431	3519	13717	363
BCN-10-16	58.691	-123.783	1035	1.5	145013	3380	14555	341
BCN-11-16	58.691	-123.783	1035	3.0	138994	3199	14118	326
Isostatic rebound correction is -84 m					Age ka±internal (external): 14.4±0.2 (0.6)			

Italics with asterics indicates a sample excluded from the set mean.
Bold indicates sample from glacially scoured bedrock.
Samples ALT-MM are from Ref. (*33*)
Isostatic rebound correction indicated.
All ages calculated with standard atmosphere, 0 shielding and assumed density of 2.65 g cm3.

Table S2. Sample location information and ^{14}C age and uncertainty from Ice-Free Corridor region. Samples in black text are proximal to IFC while samples in red text are distal to IFC.

Sample #	Lat (N)	Long (W)	^{14}C age (yr BP)	^{14}C 1 σ (yr)	INTCAL 8.2 (2 σ) (ka)	Reference
OxA-32358	56.34	-121.00	10635	50	12.61-12.73	(1)
BGS-2141	51.00	-114.00	10743	100	12.59-12.85	(2)
GSC-612	51.18	-114.46	10760	160	12.44-13.09	(3)
TO-13513	49.34	-113.14	11070	80	12.82-13.12	(4)
OxA-11274*	55.68	-121.63	11240	70	13.06-13.31	(5)
TO-7694	50.96	-114.02	11290	80	13.08-13.32	(6)
RL-757	50.96	-114.02	11300	290	12.73-13.76	(5)
UCIAMS-127373*	49.34	-113.14	11320	30	13.16-13.26	(7)
GSC-613	50.96	-114.02	11370	170	12.91-13.52	(6)
UCIAMS-127349*	49.34	-113.14	11410	30	13.22-13.34	(7)
UCIAMS-127347*	49.34	-113.14	11425	30	13.23-13.36	(7)
UCIAMS-127354*	49.34	-113.14	11430	30	13.23-13.36	(7)
UCIAMS-127351*	49.34	-113.14	11440	30	13.23-13.42	(7)
UCIAMS-127353*	49.34	-113.14	11440	30	13.23-13.42	(7)
UCIAMS-127350*	49.34	-113.14	11460	30	13.29-13.44	(7)
UCIAMS-116400*	49.34	-113.14	11465	40	13.29-13.45	(7)
UCIAMS-127355*	49.34	-113.14	11465	30	13.29-13.44	(7)
UCIAMS-127348*	49.34	-113.14	11470	35	13.29-13.45	(7)
UCIAMS-127352*	49.34	-113.14	11475	30	13.30-13.45	(7)
AA46353	56.27	-121.23	11507	52	13.30-13.49	(8)
AA43652	56.27	-121.23	12567	49	14.81-15.14	(8)
BSG-2143	50.08	-112.00	10708	100	12.58-12.83	(2)
OxA-14273*	50.08	-112.00	11620	150	13.23-13.78	(2)
UCIAMS 125540*	53.64	-113.28	11010	25	12.84-13.01	(9)
UCIAMS 125529*	53.64	-113.28	11030	25	12.89-13.07	(9)
UCIAMS 117390*	53.64	-113.28	11040	30	12.89-13.08	(9)
UCIAMS 125544*	53.64	-113.28	11050	25	12.90-13.08	(9)
UCIAMS 117388*	53.64	-113.28	11075	30	12.91-13.09	(9)
UCIAMS 117391*	53.64	-113.28	11080	35	12.91-13.09	(9)
UCIAMS 117392*	53.64	-113.28	11080	35	12.91-13.09	(9)
UCIAMS 125528*	53.64	-113.28	11080	25	12.92-13.09	(9)
UCIAMS 125541*	53.64	-113.28	11085	35	12.91-13.09	(9)
UCIAMS 125532*	53.64	-113.28	11100	25	12.96-13.10	(9)
UCIAMS125526*	53.64	-113.28	11100	30	12.96-13.10	(9)
UCIAMS 125533*	53.64	-113.28	11105	25	12.96-13.10	(9)
UCIAMS 125527*	53.64	-113.28	11110	25	12.96-13.10	(9)
UCIAMS 125531*	53.64	-113.28	11115	25	12.96-13.10	(9)
UCIAMS 125537*	53.64	-113.28	11140	25	12.99-13.12	(9)
UCIAMS 117399*	53.64	-113.28	11255	45	13.09-13.19	(9)
OxA-12900*	53.64	-113.28	11355	55	13.15-13.33	(2)
AECV:1203c	53.64	-113.28	11620	170	13.16-13.80	(2)

Table S3. Sample location information and luminescence age and uncertainty from central Alberta. Samples in black text are proximal to IFC while samples in red text are distal to IFC.

SAMPLE_ID	Method	Lat (N)	Long (W)	Age (ka)	Error (1 σ)	Site	Reference
SFU-0-275	IRSL	54.20	-114.87	15.70	1.60	Windfall	(10)
HC1-OSL3	OSL	54.29	-114.87	13.50	1.00	H. Cross.	(11)
HC2-OSL1	OSL	54.29	-114.87	15.30	1.30	H. Cross.	(11)
SFU-0-262	IRSL	54.29	-114.87	14.90	1.00	H. Cross.	(10)
FA2-OSL1	OSL	54.37	-114.64	14.60	1.70	F. Assin.	(11)
FA3-OSL1	OSL	54.37	-114.64	15.00	1.30	F. Assin.	(11)
FA3-OSL4	OSL	54.37	-114.64	13.10	0.90	F. Assin.	(11)
SFU-0-263	IRSL	54.37	-114.64	14.50	1.00	F. Assin.	(10)
GP01-OSL2	OSL	55.11	-118.73	10.50	0.80	Grande Praire	(12)
GP02-OSL1	OSL	55.11	-118.73	11.50	1.00	Grande Praire	(12)
SFU-0-265	IRSL	55.11	-118.73	13.70	1.00	Grande Praire	(10)
SFU-0-276	IRSL	55.11	-118.73	11.80	0.80	Grande Praire	(10)
SFU-0-277	IRSL	55.11	-118.73	14.90	1.00	Grande Praire	(10)
SFU-0-278	IRSL	55.11	-118.73	14.20	0.90	Grande Praire	(10)
SFU-0-279	IRSL	55.72	-117.54	12.90	0.80	Watino	(10)
SUV05309	IRSL	58.27	-121.10	13.90	1.20	Fontas R.	(13)
SFU-0-261	IRSL	54.49	-112.29	14.50	0.90	Nelson L.	(10)
SFU-0-260	IRSL	54.85	-114.29	15.30	0.80	Chisholm	(10)
CH01-OSL2	OSL	54.85	-114.29	12.10	1.00	Chisholm	(12)
SM3-OSL1	OSL	55.11	-114.00	15.40	1.10	Hondo	(14)
SM3-OSL3	OSL	55.11	-114.00	14.90	1.10	Hondo	(14)
SM4-OSL1	OSL	55.11	-114.00	13.20	1.10	Hondo	(14)
SM5-OSL5	OSL	55.11	-114.00	13.30	1.20	Hondo	(14)
SM07-OSL4	OSL	55.11	-114.00	12.90	1.30	Hondo	(12)
SM07-OSL8	OSL	55.11	-114.00	14.30	1.00	Hondo	(12)
SM08-OSL3	OSL	55.11	-114.00	13.80	1.00	Hondo	(12)
SM08-OSL9	OSL	55.11	-114.00	12.90	1.40	Hondo	(12)
SM14-OSL2	OSL	55.11	-114.00	13.10	1.50	Hondo	(12)
SFU-0-258	IRSL	55.11	-114.00	14.20	0.70	Hondo	(10)
DEC01-OSL4	OSL	55.11	-114.16	14.80	1.60	Decrene	(12)
DEC02-OSL3	OSL	55.11	-114.16	13.00	1.40	Decrene	(12)
DEC03-OSL2	OSL	55.11	-114.16	12.20	1.50	Decrene	(12)
SFU-0-259	IRSL	55.11	-114.16	14.80	0.90	Decrene	(10)
LLB1-OSL2	OSL	54.99	-112.15	14.70	1.60	L.L. Biche	(14)
SFU-0-257	IRSL	54.99	-112.15	12.60	0.60	L.L. Biche	(10)
FMc01-OSL1	OSL	56.65	-111.80	14.00	1.00	Fort Mac.	(12)
HL01-OSL3	OSL	58.52	-117.13	11.90	0.90	H.Level	(12)
SAW05-01	IRSL	58.52	-117.13	13.40	1.20	H.Level	(13)
SAW05-02	IRSL	58.52	-117.13	11.70	1.00	H.Level	(13)
SAW05-03	IRSL	58.52	-117.13	10.30	1.00	H.Level	(13)
SAW05-04	IRSL	58.52	-117.13	11.00	1.00	H.Level	(13)
LC01-OSL1	OSL	58.17	-116.59	11.70	0.90	La Crête	(12)

Table S4. Sample location information and ^{10}Be age and uncertainty for IFC samples from Ref. (23).

Field ID	Lat (N)	Long (W)	L/S_age (ka)	internal uncert (ka)	external uncert (ka)
ALT-MM-15-01	49.10	-112.22	18.02	0.50	0.85
ALT-MM-15-02	49.78	-113.65	15.13	0.42	0.72
ALT-MM-15-03	49.78	-113.65	15.15	0.44	0.73
ALT-MM-15-04	49.96	-113.69	15.99	0.45	0.76
ALT-MM-15-05	49.96	-113.84	15.55	0.43	0.73
ALT-MM-15-06	49.96	-113.84	8.65	0.25	0.41
ALT-MM-15-07	49.96	-113.84	14.77	0.40	0.70
ALT-MM-15-10	50.31	-113.87	16.22	0.45	0.76
ALT-MM-15-11	50.31	-113.87	14.74	0.44	0.72
ALT-MM-15-12	50.53	-114.14	15.04	0.48	0.75
ALT-MM-15-13	51.63	-114.48	15.39	0.45	0.74
ALT-MM-15-16	53.38	-116.79	17.60	0.57	0.88

Table S5. Sample location information and ^{14}C age and uncertainty from western Cordilleran Ice Sheet region.

Lab No	Lat (N)	Long (W)	Material	^{14}C age (yr BP)	^{14}C 1 σ (yr)	Res. age (yr)	DeltaR (yr)	INTCAL 8.2 (2 σ) (ka)	Reference
GSC-3746	51.49	-128.49	unidentified marine bivalve	15,200	490	590	311	15.94-18.32	(15)
RIDDL-998	52.20	-130.22	marine shell (Balanus nobilus)	13,420	110	570	327	14.41-15.24	(15)
Beta-114465	54.54	-130.43	marine mollusc-bivalve shell	13,450	50	590	383	14.54-15.1	(15)
CAMS-33805	54.41	-131.22	marine shell (Nuculana sp.)	13,560	60	590	383	14.76-15.27	(15)
W-2151	61.20	-149.97	marine shells	13,690	400	660	413	13.89-16.16	(15)
W-2367	61.25	-149.97	marine shells	14,300	350	660	413	15.02-16.87	(15)
W-2369	61.20	-149.97	marine shells	14,900	350	660	413	15.78-17.61	(15)
WSU-4304	60.55	-151.24	barnacle (Balanus evermanni)	16,480	170	630	413	18.15-18.94	(15)
CAMS-58696	48.40	-123.41	Shell	13,690	50	740	420	14.90-15.37	(15)
Beta-143082	55.19	-131.73	Shell	13,720	90		515	14.71-15.38	(15)
Beta-159983	53.87	-131.30	Plant fragments	12,860	80			15.13-15.62	(15)
Beta-1723	48.83	-122.27	Freshwater gastropods	12,885	225			14.79-16.09	(15)
CAMS-95313	60.22	-142.97	peat	13,700	70			16.33-16.87	(15)
GSC-2976	49.47	-126.44	wood	13,000	110			15.23-15.88	(15)
GSC-418	48.66	-123.43	Shell	13,150	85			15.52-16.05	(15)
I-3082	60.23	-144.46	marine clay	14,430	890			15.00-19.58	(15)
TO-3492	53.87	-131.42	plant and moss	13,190	100			15.54-16.16	(15)
TO-3738	53.87	-131.42	plant and moss	13,790	100			16.40-17.02	(15)
WAT-721	50.72	-127.47	silty peat	13,630	130			16.09-16.93	(15)
TO-2365	49.10	-125.85	shells	13,780	110	800	392	14.95-15.63	(16)
GSC-3711	51.49	-128.49	Macoma nasuta	14,000	75	800	392	15.28-15.86	(16)
TO-9305	51.80	-129.10	Mytilus trossulus	13,510	100	800	392	14.49-15.26	(16)
RIDDL-679	52.20	-130.22	Balanus nebilus	14,160	220	800	392	15.17-16.37	(16)
TO-1335	53.25	-130.75	Macoma nasuta	14,010	80	800	392	15.28-15.88	(16)
TO-4888	53.95	-131.25	forams, single species	14,980	110	800	392	16.47-17.17	(16)
CAMS-33806	54.40	-131.25	Nuculana	13,740	60	800	392	14.99-15.50	(16)
TO-3491	54.50	-131.75	Nuculana fossa	13,600	100	800	392	14.66-15.40	(16)
SI-2114	58.58	-136.12	shells	13,900	100	800	392	15.11-15.77	(16)
GXO-460	58.97	-136.12	shells	14,360	360	800	392	15.10-16.97	(16)
AA-21564	56.25	-133.50	Phoca hispida	13,390	240	400		14.51-15.97	(16)
AA-36661	56.25	-133.50	Phoca hispida	14,520	470	400		15.55-17.92	(16)
CAMS-2523	52.54	-131.79	insect fragments	13,550	480			14.97-17.83	(16)
Not given	52.58	-132.58	lake sed	13,550	480			14.97-17.83	(16)
CAMS-75746	53.00	-132.60	Ursus sp.	14,540	70			17.43-18.03	(16)
GSC-3547	53.69	-131.88	organic detritus	13,000	85			15.28-15.80	(16)
GSC-3319	53.70	-131.88	plant detritus/pond sed	15,400	95			18.61-18.88	(16)
GSC-3370	53.70	-131.88	plant detritus	16,000	285			18.76-20.03	(16)
RIDDL-3	53.70	-131.88	twig	14,700	700			16.02-19.45	(16)
GSC-3222	53.74	-131.88	moss	13,700	50			16.36-16.80	(16)
RIDDL-517	53.74	-131.88	Salix	13,350	200			15.46-16.68	(16)
WAT-1005	53.75	-132.07	peat	13,140	380			14.79-16.93	(16)
Beta-166544	53.87	-131.30	terrestrial plant fragments	14,330	50			17.28-17.80	(16)
TO-3738	53.87	-131.30	terrestrial plant fragments	13,790	150			16.25-17.10	(16)
AA-36649	56.25	-133.50	Alopex lagopus	12,700	140			14.79-15.60	(16)

Table S6. Sample location information and ^{10}Be age and uncertainty from western margin of Cordilleran Ice Sheet.

Field ID	Lat (N)	Long (W)	L/S_age (yr)	^{10}Be 1σ (yr)	Avg age (ka)	Std_error (ka)	external uncert (ka)	Reference
15SEAK-3	55.24	-133.30	16,346	610	16.44	0.33	0.71	(17)
15SEAK-4	55.24	-133.30	16,371	325				
15SEAK-5	55.24	-133.30	16,306	313				
15SEAK-6	55.24	-133.30	17,626	463				
15SEAK-7	55.24	-133.30	15570	315				
15SEAK-8	55.32	-133.63	15,376	297	15.57	0.38	0.71	(17)
15SEAK-9	55.32	-133.63	14,984	291				
15SEAK-10	55.32	-133.63	15,223	295				
15SEAK-11	55.32	-133.63	16,679	322				
16-CAL-19-BUX	51.59	-128.02	18,985	985	18.22	0.33	0.77	(18)
16-CAL-20-BUX	51.59	-128.02	17,007	1283				
16-CAL-21-BUX	51.59	-128.02	18,229	340				
16-CAL-22-BUX	51.59	-128.02	18,604	735				
16-CAL-23-BUX	51.59	-128.03	18,277	296				
16-CAL-15-SI	51.49	-128.07	18,390	704	18.12	0.24	0.73	(18)
16-CAL-16-SI	51.49	-128.07	18,630	694				
16-CAL-17-SI	51.49	-128.07	17,531	297				
16-CAL-18-SI	51.49	-128.07	17,934	484				
16-CAL-02-HUN	51.96	-128.20	17,410	918	16.94	0.50	0.82	(18)
16-CAL-03-HUN	51.96	-128.20	18,143	342				
16-CAL-04-HUN	51.96	-128.20	15,270	198				
16-CAL-05-HUN	51.96	-128.20	17,454	374				
16-CAL-06-HUN	51.96	-128.20	16,407	592				
15-CAL-12-BUX	51.59	-128.03	18,867	1828	17.06	0.50	0.82	(18)
15-CAL-13-BUX	51.59	-128.03	16,115	679				
15-CAL-14-BUX	51.59	-128.03	16,201	611				
15-CAL-15-BUX	51.59	-128.03	16,779	623				
15-CAL-16-BUX	51.59	-128.03	17,333	741				

Table S7. Sample location information and age and uncertainty for pre-Clovis archaeological sites.

Paisley Caves, OR	^{14}C age (yr)	1 σ (yr)	INTCAL 8.2 (2 σ)	Reference
1374-PC-5/5D-31	12,275	55	14,057-14,453	(19)
Coopers Ferry, ID	^{14}C age (yr)	1 σ (yr)	INTCAL 8.2 (2 σ) (ka)	
OxA-38052	13,335	75	15,796-16,272	(20)
Page Ladson, FL	^{14}C age (yr)	1 σ (yr)	INTCAL 8.2	
UCIAMS-143537	12,560	35	14,815-15,115	(21)
Debra L. Friedkin, TX	OSL age (ka)	1 σ (ka)		
	15.47	0.58		(22)

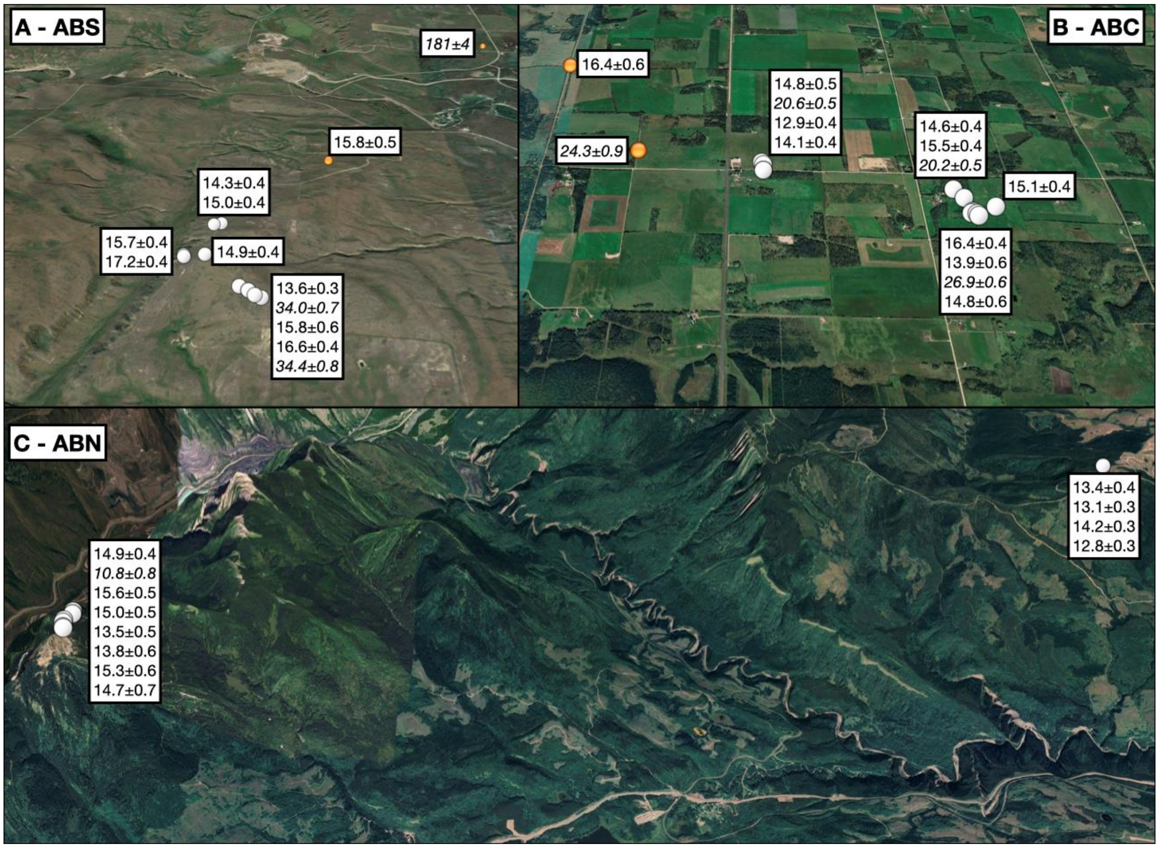

Figure S1. Oblique, north-facing Google Earth images of ABS (A), ABC (B), and ABN (C) sampling sites with three times vertical exaggeration. White symbols are our samples; yellow symbols are ages from Ref. (23). Uplift-corrected ^{10}Be ages with analytical uncertainty noted in kilo annum. Italics indicates an outlier excluded from calculation of the sample mean and uncertainty.

Figure S2. Oblique, north-facing Google Earth images of BCS (A), BCC (B), and BCN (C) sampling sites with three times vertical exaggeration. Uplift-corrected ^{10}Be ages with analytical uncertainty noted in kilo annum (ka). Italics indicates an outlier excluded from calculation of the sample mean and uncertainty. Asterix indicates a bedrock sample.

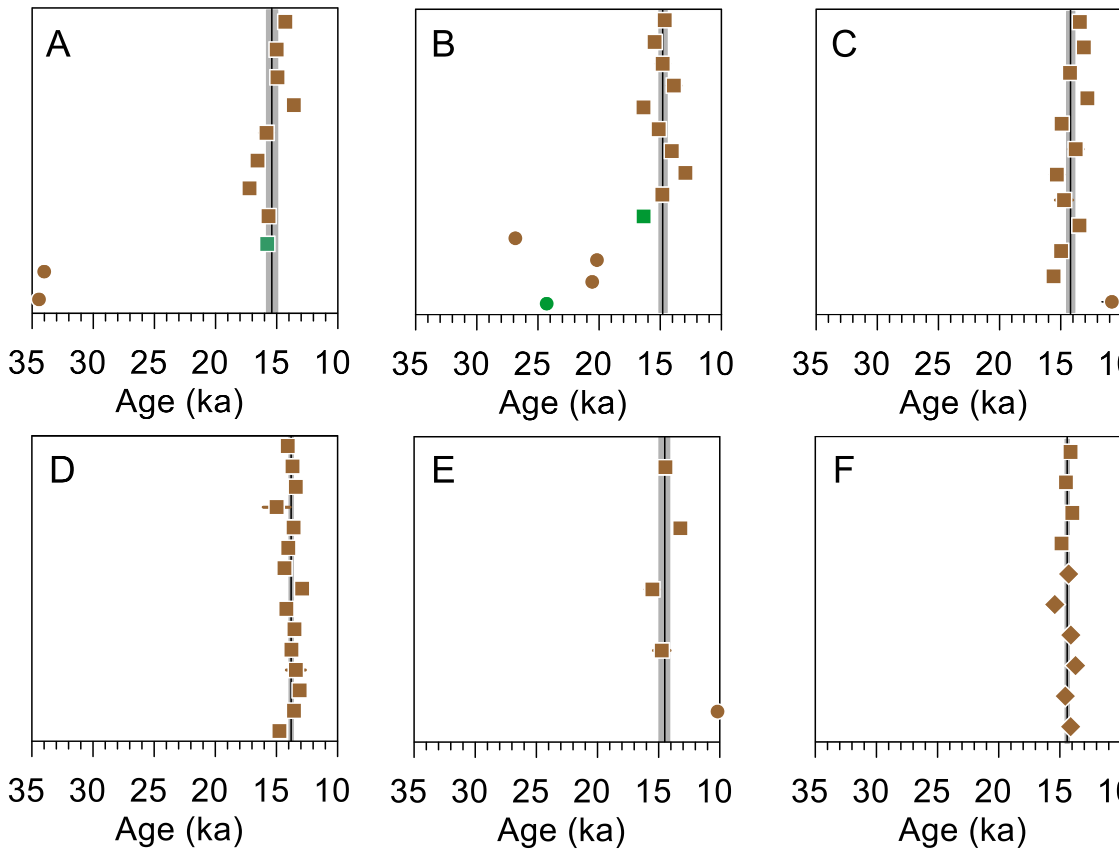

Figure S3. **^{10}Be age results. A**. Site ABS. **B**. Site ABC. **C**. Site ABN. **D**. Site BCS. **E**. Site BCC. **F**. Site BCN. Our samples are brown symbols; green symbols are from Ref. (23). Horizontal bars are 1σ analytical uncertainty. Squares are glacial boulder samples, diamonds are bedrock samples, and circles are outliers (all are boulders). Vertical dashed lines and gray rectangles denote mean age and 1σ internal uncertainty of sample population.

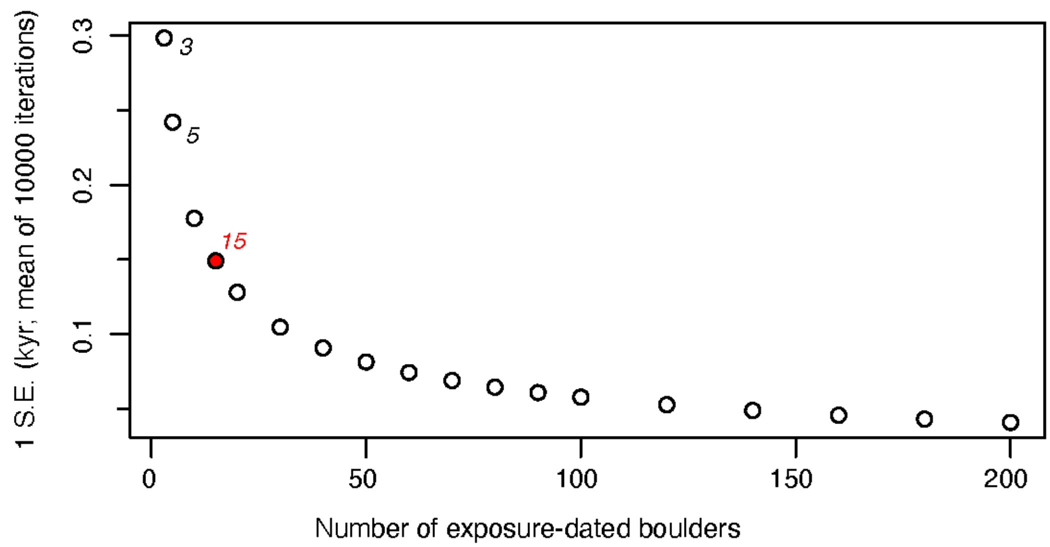

Figure S4. Plot of standard error for different numbers of randomly sampled boulders from a synthetic natural distribution following the BCS data (white symbols). The synthetic dataset was defined as 100,000 exposure ages for boulders with a mean and standard deviation identical to the ^{10}Be dataset for the BCS site (13.823 ka and 0.577 ka, respectively). Random sampling of the number of boulders on the plot was repeated 10,000 times, and the plotted 1 standard error is the mean of those 10,000 iterations. Standard error for the ^{10}Be ages at the BCS site is plotted as a red symbol. Numbers in italics indicate the number of boulders.

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