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Data on aeolian sand dune activity in the White River Badlands, South Dakota, northern Great Plains, USA

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Table 1: Equivalent dose, dose rate data, and OSL age estimates											
UNL Lab #	OSL Sample #	Depth (m)	U (ppm)	Th (ppm)	K20 (wt %)	H2o (%)^a	Dose Rate (Gy/ka)	CAMb De (Gy) ± 1 Std. Err.	Aliquots (n)^c	OSL Age ± 1 σ	O.D.^d %
Bouquet Table (43°39'37.076"N 102°16'15"W)											
UNL-4286	OSL 1A	1.9	1.2	4.8	2.3	2.1	2.60 ± 0.15	23.8 ± 0.7	24/33	9200 ± 700	13.9
UNL-4287	OSL 1B	2.7	1.4	6.0	2.3	2.8	2.68 ± 0.15	24.2 ± 0.5	25/33	9100 ± 700	10.4
UNL-4288	OSL 5A	1.0	1.2	5.6	1.9	2.2	2.37 ± 0.13	1.5 ± 0.1	28/33	600 ± 50	12.2
UNL-4289	OSL 5B	2.9	1.1	5.1	2.1	3.5	2.36 ± 0.14	21.1 ± 0.8	26/33	8900 ± 700	18.1
UNL-4290	OSL 8	1.6	1.3	5.4	2.6	2.2	2.82 ± 0.16	17.7 ± 0.6	26/31	6300 ± 500	16.4
UNL-4313	OSL 9A	1.0	1.3	4.3	2.4	5	2.57 ± 0.15	41.7 ± 1.2	36/40	16200 ± 1300	17
UNL-4312	OSL 9B	2.1	1.1	4.1	2.4	5	2.50 ± 0.15	37.2 ± 1.5	32/38	14900 ± 1300	23.1
High Relief											
UNL-4293	OSL 2	1.0	1.1	3.6	2.6	2.2	2.69 ± 0.16	1.1 ± 0.1	21/54	400 ± 40	1
UNL-4379	OSL 3	1.3	1.1	4.5	2.5	5	2.65 ± 0.16	1.9 ± 0.1	34/39	720 ± 70	31.1
UNL-4380	OSL 4	1.0	1.4	5.4	2.4	5	2.67 ± 0.16	0.6 ± 0.1	38/63	210 ± 20	13.9
UNL-4381	OSL 6	1.4	1.4	7.4	2.5	5	2.84 ± 0.16	0.6 ± 0.1	38/48	210 ± 20	17.4
UNL-4291	OSL 7A	0.8	1.2	5.7	2.6	1.1	2.92 ± 0.17	0.9 ± 0.1	25/51	300 ± 40	8.6
UNL-4292	OSL 7B	1.9	1.0	4.2	2.4	2.5	2.56 ± 0.15	1.6 ± 0.1	25/48	600 ± 60	24.7
Conata Table (43°41'36.449"N 102°26'16"W)											
UNL-4310	OSL 1	2.0	1.5	6.7	2.0	5	2.48 ± 0.14	21.7 ± 0.4	35/43	8700 ± 600	10.4
UNL-4311	OSL 2	1.7	1.2	4.9	2.6	5	2.72 ± 0.17	32.6 ± 0.4	34/38	12000 ± 900	6.7
UNL-4308	OSL 3A	1.8	1.5	6.2	2.2	5	2.60 ± 0.15	22.1 ± 0.4	28/35	8500 ± 600	8.5
UNL-4309	OSL 3B	2.6	1.0	3.6	2.3	5	2.34 ± 0.15	25.4 ± 0.4	35/40	10800 ± 800	9.6
UNL-4062	OSL 5	1.3	1.4	5.2	2.0	5	2.34 ± 0.13	17.4 ± 0.5	26/28	7400 ± 600	16
High Relief											
UNL-4064	OSL 4	1.7	1.6	7.1	2.1	5	2.60 ± 0.15	15.6 ± 0.7	27/33	6100 ± 500	23
UNL-4060	OSL 6	1.2	1.3	5.6	2.0	5	2.39 ± 0.14	1.0 ± 0.1	23/33	420 ± 50	30
UNL-4056	OSL 7	1.1	1.7	6.4	2.2	5	2.62 ± 0.15	1.1 ± 0.1	30/40	420 ± 50	39
UNL-4058	OSL 8	1.2	1.4	6.3	2.1	5	2.52 ± 0.14	0.8 ± 0.1	27/37	320 ± 50	21
Cuny Table (43°32'10.85"N 102°38'56"W)											
UNL-4307	OSL 1	1.9	1.3	5.6	2.1	5	2.39 ± 0.14	17.2 ± 0.3	31/35	7200 ± 500	8.1
High Relief											
UNL-4306	OSL 2	1.5	1.3	4.8	2.0	5	2.30 ± 0.13	0.1 ± 0.1	28/49	40 ± 20	0.1
UNL-4304	OSL 3A	2.1	1.2	6.1	2.1	5	2.44 ± 0.14	0.6 ± 0.1	28/57	250 ± 20	0.1
UNL-4305	OSL 3B	2.7	1.1	5.3	1.7	5	2.01 ± 0.11	0.5 ± 0.1	28/58	260 ± 40	42.2
a Assumes 50% long-term variability in moisture content. Values for UNL-4286-4293 are field measurements, other samples are estimated at 5%.											
b Central Age Model (Galbraith et al., 1999)											
c Accepted disks/all disks											
d Overdispersion											