

Table S1. Chemical correlation data on tephra sample from core BO-1.

Sample <sup>a</sup>	Calculation	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub> <sup>b</sup>	MgO	CaO	TiO <sub>2</sub>	Na <sub>2</sub> O	K <sub>2</sub> O	Cl	$\sum$ Wt%	H <sub>2</sub> O Diff	Corr Factor	SC <sup>c</sup>
Source	Average	72.59	14.42	2.31	0.54	1.71	0.48	5.15	2.70	—	—	—	—	1.00
n = 58 <sup>c</sup>	St. Dev. (1 $\sigma$ )	0.27	0.16	0.07	0.08	0.09	0.02	0.16	0.06	—	—	—	—	
Core BO-1	Average	72.49	14.70	2.00	0.51	1.72	0.47	4.99	2.82	0.30	100.00	12.49	1.15	
n = 9	St. Dev. (1 $\sigma$ )	0.32	0.62	0.15	0.05	0.11	0.24	0.46	0.14	0.22	0.00	5.40	0.07	
	SC <sup>c</sup>	1.00	0.98	0.87	0.94	0.99	0.98	0.97	0.96	—	—	—	—	0.96
Tephra sample from Core BO-1 correlated with climatic eruption of Mount Mazama ( $7,630 \pm 125$ cal yr BP)														

<sup>a</sup>Sample origins: Source of published analyses—David, P.P., 1970, Discovery of Mazama ash in Saskatchewan, Canada: Canadian Journal of Earth Sciences, v. 7, p.1579-1583. Core BO-1—Chemical analyses and correlation by J.Z. Maherrey and J.E. Begét at Alaska Center for Tephrochronology (ACT), University of Alaska, Fairbanks, AK.

<sup>b</sup>Iron oxide value published as Iron(II) Oxide (FeO). Value converted mathematically to Iron (III) Oxide (Fe<sub>2</sub>O<sub>3</sub>) for correlation by multiplying FeO value ( $2.08 \pm 0.06$ ) by 1.111 conversion factor.

<sup>c</sup>SC—Similarity Coefficient; average calculated using Si, Al, Fe, Ca, Na, K oxides.