

TABLE DR1. ELECTRON MICROPROBE ANALYSIS OF VOLCANIC GLASS SHARDS FROM MIDDLE PLEISTOCENE TEPHRA LAYERS, DEATH VALLEY, CALIFORNIA, AND COMPARATIVE COMPOSITIONS

Sample	SiO ₂	Al ₂ O ₃	Fe ₂ O ₃	MgO	MnO	CaO	TiO ₂	Na ₂ O	K ₂ O	Total(O)*	S.C.†
JRK-DV-99	77.1	13	0.69	0.03	0.03	0.43	0.05	3.37	5.34	93.6	1.0000
JRK-DV-93	76.8	13.2	0.7	0.03	0.03	0.43	0.05	3.54	5.21	91.9	0.9942
OL92-1024#	76.9	13	0.7	0.03	0.03	0.44	0.05	4.04	4.85	95.2	0.9937
BT-7	77.5	12.6	0.76	0.03	0.03	0.45	0.05	3.86	4.66	94.6	0.9758
JRK-DV-42	77.6	12.6	0.72	0.03	0.03	0.44	0.06	3.78	4.7	94.3	0.9622
JRK-DV-43	77.3	12.9	0.76	0.03	0.03	0.44	0.06	4.2	4.34	93.9	0.9588
Standard**	(wca)	75.7	11.4	2.12	0.05	0.15	0.12	0.21	5.25	4.53	99.6
Standard‡	(ema)	74.9	11.5	2.12	0.05	0.15	0.1	0.19	5.15	4.42	98.5
	±σ	0.65	0.1	0.04	0.01	0.01	0.01	0.01	0.16	0.05	0.65

Note: Values given are in weight-percent oxide, recalculated to 100% fluid-free basis.

*Total (o) - original oxide totals before recalculation are given to indicate the approximate degree of hydration of the volcanic glass.

†S.C. – similarity coefficient of Borchardt and others (1972) using Si, Al, Fe, Ca and Ti for quantitative comparisons of the tephra samples where 1.0000 represents a perfect match.

#Data for correlative samples: OL92-1024: Bishop air-fall ash, Owens Lake, Calif. core, 312 m below ground surface (Sarna-Wojcicki and others, 1997); BT-7: Base of Bishop ash-flow tuff, 11 km N. of Bishop, Calif. (~0.77, Sarna-Wojcicki and others, 2000)

** Standard (wca): wet chemical analysis (Macdonald and others, 1992).

‡ Standard (ema): electron-microprobe analysis reported here. Charles E. Meyer and James P. Walker, analysts, U.S. Geological Survey, Menlo Park, Calif.

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